



The Albuquerque Sign Language Academy
children. family. community. possibility.

**Employee Handbook
2010-2011**

NOTE: The policies and procedures set forth in this handbook are set as a preliminary guideline for the Albuquerque Sign Language Academy. The start up committee recognizes that the ASL Academy Governance Board will modify and update this policy as needed in order meet the goals of the ASL Academy.

The Albuquerque Sign Language Academy Employee Handbook 2010-2011

MISSION STATEMENT

The mission of the Albuquerque Sign Language Academy is to improve educational outcomes for deaf, hard of hearing, and hearing students in the greater Albuquerque area by providing a rigorous standards-based bilingual educational program which utilizes American Sign Language and English to achieve academic excellence, support family involvement, and promote multi-cultural community partnerships.

ACHIEVEMENT OF MISSION

The Albuquerque Sign Language Academy will successfully achieve its mission by creating a learning environment in which the following are true:

- Student population includes deaf, hard of hearing and hearing students, all of whom express feelings of membership within the school community, as reflected in teacher observations and student self-assessments.
- School curriculum and classroom environment reflect high academic expectations of all students, regardless of special needs, and promote acquisition and fluency of both ASL and English for all students, as demonstrated in regular student evaluations.
- Teachers and parents collaborate frequently, assess student performance regularly, and adjust curriculum and/or student placement as necessary to ensure each child is being appropriately challenged and demonstrating measurable progress in all subject areas, as displayed through attendance at Individualized Educational Plan (IEP) or Personal Learning Plan (PLP) meetings and parent-teacher conferences.
- Parents possess an understanding of the critically important role they play in their child's academic, social and emotional development and well-being - a role which no school or community can substitute – as reflected in their participation at educational workshops for parents and other school sponsored events.
- School leaders and community stakeholders develop cooperative relationships in order to further grow and enrich the school program, as shown through mutual promotion of multicultural community events and increased student enrollment.

I. Agreements

1. All teachers teach to the best of their abilities all of the time.
2. Ensure a safe, clean learning environment.
3. Continuously learn, develop, and improve.
4. Work as a team with respect and trust for one another.
5. Embrace change in planning next steps for teaching.
6. Abide by the language and communication norms of the campus.

II. Expectations

Curriculum

- You are prepared daily and effectively use every instructional minute provided to students.
- You will use the board-approved materials for Reading instruction.
- You will use the board approved materials for Math instruction.
- You will use AIMS for Science instruction.
- Teachers must use ASL for all whole group instruction.
- Primary grade teachers use Fairview program.
- You must use the State Standards and board approved curriculum map for lesson planning.
- You will follow the assessment schedule for mandated testing (for example KDPR, NMSBA, NMELPA, Short Cycle Assessments, Writing Assessment, etc.)

Environment

- Your classroom is neat, organized, and inviting.
- Your classroom is conducive to and promotes an exciting learning environment.
- An alphabet is posted in both sign language and written English.
- A number line is posted.
- You have all needed equipment, i.e. furniture, books, pocket charts, timer, maps, overhead (let us know what you need).
- You follow the school-wide a classroom management plan that includes classroom consequences for inappropriate behavior, as well as incentives for positive behavior. The plan will be explained to students and sent home to parents. The plan should be posted.

Schedule

- At least 120 minutes is spent on Literacy instruction (reading and writing).
- At least 60 minutes is spent on Math instruction.
- At least 30 minutes is spent on Response to Intervention (RTI) Strategies.
- At least 50 minutes a day is spent on American Sign Language instruction.
- Follow the dedicated time towards literacy and numeracy as applied across and between content areas (Science, Social Studies, etc.) throughout the remaining daily instructional minutes.

Professional Development

- You participate in all school wide professional development, i.e., Wednesday PD meetings, Grade Level meetings, Staff Meetings, Cross Grade Level meetings.

Miscellaneous

- Your daily schedule, Classroom Management Plan, and Emergency Substitute Plans are on file in the office.
- Guests and visitors to your classroom sign in at the office.
- Your dress will serve as a professional example to all students and parents.
- Limit cell phone use to your own personal time (they are **not** to be used during instructional time- this includes texting).

III. Employment Policies

Absence/Leave and Punctuality of Staff Members

Teachers and Educational Assistants are asked to record their absence by contacting the Academy Administrator. To enter an absence, please consider the following:

- **Teachers, EAs and other certified staff must call into the office and make contact with the Academy Administrator to indicate their reason for absence by 7:30 a.m. on the day of the absence. Leave a message if necessary. (# TBD)**

If an employee fails to report to work without notification to the Academy Administrator, the school may consider that employee has abandoned his/her employment and has voluntarily terminated the employment. In such cases, the school must provide notice to the employee of the decision, and the employee may file a grievance pursuant to the process outlined in the Grievance Section if the employee disputes the decision.

Upon returning to work after an absence for any reason, the employee must complete an absence form and turn it in to the Academy Administrator by the end of the workday on which the employee returns. If an employee is absent for medical reasons for more than 10 working days, the employee must, immediately upon his or her intended day of return to work, provide the Academy Administrator with a physician's statement certifying that the employee is able to return.

Annual Leave

Sick leave is available to employees to provide for full salary and benefits for absences due to personal illness or injury that prevent the employee from working or for the following reasons:

1. Appearance in court as an interested party or under subpoena.
2. Death of an immediate family member.
3. An emergency caused by an accident or illness that requires the employee to be absent from work.
4. Other Personal leave for urgent personal business or other emergencies.

Full-time staff shall accrue leave at the rate of 10 days per school year. If specified in the employee's contract, part-time staff, or staff working part of the school year shall accrue sick leave on a prorated basis to reflect the proportion of time or working months that the employee's schedule represents in relation to a full time schedule. Employees may accrue up to 10 unused days of leave to be carried over across school years if their annual contract is renewed. Leave is granted for only the reasons listed above and will not be paid out if not utilized, if the employee is terminated, or if the employee's contract is not renewed. All employees shall inform the Academy Administrator of an anticipated absence as soon as possible, and such leave (other than for unexpected circumstances) must be pre-approved by the Academy Administrator. The Academy Administrator may require an employee to verify the claimed reason for any absence.

Long Term Leave

Long-term leave shall be defined as unpaid leave for pregnancy, post-childbirth maternity or paternity, adoption, employee long-term illness, and any other reasons required by law. The school may require certification from a qualified medical professional to document the reason for the leave and/or to verify the employee's ability to return to work. Such leave shall be given for a maximum of up to 12 consecutive weeks, or longer if required by law. In no event shall such leave extend beyond the end of the employee's annual contract unless the contract is renewed. Such leave is available to full-time staff only who have been employed for at least one full school year. Any health benefits provided to the employee by the school will continue to be provided during this leave. Whenever possible, such leave must be pre-approved by the Academy Administrator and at least 30 days advance notice shall be given by the employee.

Jury Duty

Upon notification by a court to report for jury duty, the employee shall immediately request jury duty during non-school months. In the event this request is not granted, time off with no loss of salary limited to two (2) weeks will be provided for jury duty required to be served during the school year. Any employee, when advised of his/her notification of jury duty, must immediately inform the Academy Administrator. Salary will be paid as usual, and the check for juror fees is to be signed over to the school.

Professional Development Leave

Full-time employees are entitled to the equivalent of three paid days during the school year for training purposes. Such training must be approved by the Academy Administrator and Executive Director in advance.

Certification, Licensure, and Employment Requirements

A. Staffing

1. Regular Teaching Staff

Full time, regular teaching staff, shall be certified highly qualified by the State Department of Education. However, teachers-in-training who are working toward a credential and others with specialized and appropriate experience may also be retained if their skills and abilities will further the educational mission of the Albuquerque Sign Language Academy and if they obtain the emergency waiver.

2. Ancillary Therapy Staff

Ancillary Therapy Staff are required to hold certification in their area of expertise and must demonstrate subject knowledge and the ability to work well with children.

B. Other Staff, Substitutes, and Consultants

All other staff must demonstrate the abilities necessary to effectively carry out their responsibilities.

C. Employees are expected to adhere to the requirements for employment described in the Charter and personnel policies.

D. Before the first day of employment, all employees must have a tuberculosis test. The current physician's statement must be on file in the office before the first day of employment. Failure to provide documentation on time may result in immediate termination.

E. All first year employees must submit to a fingerprint and background check. Such fingerprints must be submitted prior to employment and are a condition of employment. Criminal record summaries will be maintained by the Executive Director in a secured file separate from personnel files.

F. Employees are expected to conduct themselves at all times in a manner consistent with the highest standards of personal character and professionalism, with children, parents, prospective parents, co-workers, and the community.

Employee Policies, Staff Ethics and Conduct

Equal Employment

The Albuquerque Sign Language Academy is an equal opportunity employer. Discrimination violates state and federal laws; therefore, the ASL Academy prohibits discrimination and harassment, sexual or otherwise, in all facets of employment. The ASL Academy will be governed by all applicable state and federal laws, including without limitation the New Mexico School Personnel Act. The Governance Board and Administration at the ASLA will adopt and follow these policies and procedures.

Reasonable accommodation will be made for employees with a disabling condition, as defined by ADA, which affect his/her abilities to perform the essential functions of her/her job. The request maybe made through any form of communication, written or otherwise. Documentation may be requested form the employee regarding limitations that arise form the disability that requires reasonable accommodations. Requests for accommodation should be made to the Academy Administrator or Executive Director.

Communication

The ASL Academy's school-wide focus includes full access to communication. All staff is to sign at all times. If a staff member wishes to have a verbal discussion without signing, it is considered appropriate to have the discussion in private (i.e. behind closed doors). The main exception to the sign at all times rule is a teacher of the hearing providing direct instruction to hearing students (i.e. Literacy block).

Professionalism

Employees shall treat each other with respect and dignity. Employees should try to settle disputes in a respectful and professional manner. All employees shall treat colleagues, students and families without discrimination. Evidence of discrimination based on age, beliefs, color, creed, gender orientation, national origin, political affiliation, race, or sexual orientation, will be grounds for immediate dismissal. Employees with complaints should address them to the Executive Director or the Academy Administrator.

Employees will act in a manner that is supportive of the school and their colleagues. No employee of the ASL Academy should presume to speak for or on behalf of the school without the prior approval of an Administrator.

Please remember that the welfare of the child is the first concern of the school. It is the responsibility of staff members to support programs and activities when in public. When making criticism of staff members, departments or programs it should be done in a professional manner and to an administrator.

Drug-Free Workplace

For the health and safety of the employees and students of the ASL Academy, the employees should be aware that the unlawful manufacture, distribution, dispensation, possession, or use of illicit substances is prohibited on school premises or as a part of any school activity. Such activity is also prohibited on work time, anywhere on the property regardless of work time, and while performing employment services outside the workplace. Specific actions, including termination, will be taken against employees for violation of such prohibitions.

Workplace Safety

The ASL Academy will make every attempt to create a safe working environment for its employees. Any threats of violence, assaults- verbal or physical, possession of weapons, or sexual harassment is prohibited on work time, anywhere on the property regardless of work time, and while performing employment services outside the workplace. Specific actions, including termination, will be taken against employees for violation of such prohibitions.

Employee Dismissal, Discipline, and Termination

- A. All employees will be hired on the basis of annual contracts and their terms expire at the end of their annual contract. Contracts of employment shall be renewed by affirmative vote of the Governance Board in **public session** or by appropriate action of administration. An employee may only be terminated by vote of the Governance Board in **public session**.
- B. Any member of the Trilateral Leadership Team may recommend terminating or suspending the employment of any employee if s/he determines that the employee has failed to fulfill the duties and responsibilities and/or demonstrate the qualities outlined in the job description, or if other good cause exists. Sufficient documentation must be provided to the Governing Board as to the necessity of the employ's release. In the event the school finds it necessary or desirable to terminate an employee's employment before the end of the school year, the school will attempt to give the employee written notice at least 10 calendar days before

termination, unless any Trilateral Leadership member determines that the employee poses a threat to the health, safety, or welfare of the school or students, in which case the employee will be terminated immediately.

Provisions in the Employee Handbook indicate causes for discipline or discharge and are meant to give employees warning regarding behaviors that will result in serious consequences. The Governance Board or Trilateral Leadership Team may also choose, in its sole discretion, to utilize informal counseling, written reprimands, suspensions or other actions as a response to employee misconduct, in lieu of termination. Such alternative measures are not required and use of such measures establishes no precedent for tolerating employee misconduct.

- C. In the event of termination of employment prior to the end of an employment contract, the employee shall be entitled only to the prorated salary and benefits earned through the last date of employment.
- D. In the event an employee finds it necessary to resign during the school year, the employee shall give written notice to the Academy Administrator or Executive Director as soon as possible and at least 10 calendar days before the effective date of resignation.
- E. Any employee may submit a grievance regarding dismissal, discipline, and termination pursuant to the grievance process (See Grievance Policy Section).

At-Will Employment

Unless otherwise approved by the Governance Board, all employees of the Albuquerque Sign Language Academy shall be hired on an 'at will' basis, and can be dismissed at any time with or without cause, pursuant to NMSA 1978, as will be indicated in the employment contract. Any employee who has been employed by the ASL Academy for three consecutive years may not be terminated without just cause.

Grievance Procedure

In the event of a dispute involving employment or the implementation of the personnel policies, and after a good faith effort with their supervisors to thoroughly resolve the dispute, all employees may submit their complaint following the procedures outlined below. The good faith effort will include problem identification, possible solutions, selection of resolution, timeline for implementation, and follow-up. A written summary of the good faith effort will be included in the personnel file. Failure to follow the procedures and timelines below constitutes a waiver of the employee's right to grieve.

1. The employee may submit his/her grievance in writing to any Trilateral Leadership Team member within five days of a failed good faith effort to resolve the dispute.
2. Within ten working days of receipt of the written complaint, the Trilateral Leadership Team shall schedule a hearing, at a mutually convenient time and place, for discussion of the complaint with all parties involved, but no later than 20 days after receipt of the written complaint and after notification to the employee. Trilateral Leadership Team members who

are interested parties shall excuse themselves from grievance proceedings if such members have a conflict of interest related to the proceedings.

3. Upon completion of the hearing, the Trilateral Leadership Team shall render a decision, as established by a majority vote, within five working days. Any such proceedings shall be conducted in closed session, unless requested otherwise by the employee. In the event that additional information, investigation, or hearings are necessary after the initial hearing, the hearing may be continued and the final decision shall be made within five working days of the last committee hearing, or as soon as possible. Any additional proceedings shall be completed as soon as possible.
4. The decision of the Trilateral Leadership Team shall be final unless appealed by the employee to the Governance Board, which may review and modify the decision of the Trilateral Leadership Team if it finds that the Trilateral Leadership Team failed to properly follow the grievance process described above. A request for an appeal may be submitted to the Chairperson of the Board within five days of the decision of the Trilateral Leadership Team. After receiving an appeal request, the Chairperson shall schedule a meeting to consider such an appeal as soon as possible. Governance Board members who are interested parties, as defined in the Bylaws, shall excuse themselves from reviews of Trilateral Leadership Team decisions to the extent permitted under law. Any such proceedings shall be conducted in closed session, unless requested otherwise by the employee.

Health and Welfare Benefits

Health Benefits

The Albuquerque Sign Language Academy will attempt to provide health, dental, and vision insurance coverage for current staff that is reasonably comparable with coverage provided by the sponsor district to its employees, provided such coverage is commercially or otherwise available at reasonable cost. The Albuquerque Sign Language Academy will pay the cost of such coverage for full time employees. Part time employees may also request such coverage and the cost of such coverage will be prorated between the School and the Employee. The School contribution shall represent the proportion the hours worked by the employee bears to a full-time equivalent position. No staff member will receive paid health benefits beyond their term of employment.

Welfare Benefits

The Albuquerque Sign Language Academy will attempt to secure State Teachers Retirement System eligibility for all eligible core teachers and will pay the required employer contribution for such benefits if available and to the extent requested by the employee. The Albuquerque Sign Language Academy will also attempt to secure Public Employees Retirement System eligibility for all eligible staff and make the required employer contribution for such benefits, if available and to the extent requested by the employee. The Albuquerque Sign Language Academy will make the required employer contribution toward federal Social Security for eligible employees.

Personnel Evaluation

Confidential Personnel File

The school shall maintain a confidential personnel file for each employee. The personnel file will contain the evaluation documents discussed in this section, as well as any other employment-related documents or correspondence. Concerned parties will have signed all documents placed in the personnel file.

Professional Development Portfolio

All instructional and professional staff will create and maintain a Personal Development Portfolio containing the goals and outcomes of the school and the employee's personal plan for meeting those goals and outcomes and for continuous improvement. After an initial meeting between the Academy Administrator and employee, at which time mutual goals are reviewed and a professional growth program is developed, the employee will create the Portfolio that will include samples of classroom or schoolwork, personal reflections, and any other material deemed appropriate as evidence of continuous improvement.

Employee Observations

The Academy Administrator, using both formal and informal observations, will observe all employees on an ongoing basis. Formal observations will include a pre-observation conference as well as a post-observation conference. First-year (Level 1) employees shall have at least two formal observations prior to the three-month review outlined in Section D, below. Prior to the six-month review, described in Section D, at least two additional formal or informal observations will be conducted for first-year (Level 1) employees. Returning staff (Level 2 and 3) will have three formal or informal observations prior to the six-month review, described in Section E, below. Results of formal observations, consisting of the employee's and the Academy Administrator's observations and recommendations, will be put in writing and included within the employee's own Personal Development Portfolio and the school's personnel file. Nothing in this section limits the Academy Administrator from conducting other observations of an informal or unannounced nature.

A. Formal Reviews – Level 1 Employees

For all Level One employees, there shall be a formal review three months after the start of the school year. The purpose of the three-month review shall be to review the employee's self-assessment, the job description, areas of responsibility, and progress toward goals and outcomes, noting particularly good work, areas for improvement and skill development, deficient work, and developing a clear plan for improvement. In addition, at the three-month review, the employee will provide feedback to the Academy Administrator on their job performance and the Academy Administrator will share with the employee his/her own assessment. Any written feedback or self-assessment materials may be placed into the employee's personnel file. After six months from the start of the school year, a second review will be held to determine progress made toward the improvement plan. At that time, the Academy Administrator will inform the employee and report to the Governance Board whether the school intends to continue employment for the subsequent school year. Results of these reviews will be put in writing and placed within the employee's own Personal Development Portfolio and the school's personnel file.

B. Formal Reviews - Returning Employees (Level 2 &3)

For returning staff, there shall be a formal review six months after the start of the school year. The purpose of the review will be to review progress toward the employee's personal plan and professional growth program described above in Section B. At that time, the Academy Administrator will inform the employee and report to the Governance Board whether the school intends to continue employment for the subsequent school year. Results of these reviews will be put in writing and placed within the employee's own Personal Development Portfolio and the school's personnel file.

C. Trilateral Leadership Team Evaluation

The Academy Administrator, Executive Director and Family and Community Services Coordinator shall be evaluated by the Governance Board prior to the end of each year's contract based on criteria set forth by job responsibilities. Additionally, teachers will have the opportunity to provide feedback on each of the team member's performances. Results shall be in writing and included in the employee's Personal Development Portfolio and personnel file.

D. Response to Observation and Review Findings

All employees shall have the right to make written objections to the observations or review findings within one week of receipt by stating areas of disagreement. These objections will be attached to the observation and/or evaluation and kept in the employee's personnel file.

Salaries

The Executive Director and Finance Manager shall propose salary rates in accordance with the terms of the Charter and will present them for approval to the Governance Board.

IV. SCHEDULES

Albuquerque Sign Language Academy 2010 - 2011 Calendar

July 14-15, Wednesday/Thursday	Staff Orientation/ Training
July 16, Friday	Teacher Preparation Day
July 19, Monday	First Day of School
September 20- October 8	1 st Intersession (No Classes)
November 11, Thursday	Veteran's Day (No Classes)
November 22-23, Monday-Tuesday	Parent Teacher Conferences (No Classes)
November 24-26, Wednesday-Friday	Thanksgiving Holiday (No Classes)
December 20- January 7	2 nd Intersession (No Classes)
January 17, Monday	Martin Luther King's Day (No Classes)
February 21, Monday	Presidents' Day (No Classes)
February 18, Wednesday	End of Second Trimester
March 23, Wednesday	Teacher Preparation Day (No Classes)
March 24-25, Thursday-Friday	Parent Teacher Conferences (No Classes)
March 28-April 8	3 rd Intersession (No Classes)
May 30, Monday	Memorial Day (No Classes)
June 10, Friday	Last Day of Classes
June 13-15	Snow Make-up Days (if needed)

Abbreviated Day & School Cancellation

In the event of an emergency, usually caused by poor weather, which might create unsafe conditions for the students and staff members, the ASL Academy will follow the Albuquerque Public Schools Abbreviated Day. When this schedule is in effect, notice is given through the local media as early as possible. This schedule dictates that staff and students begin school two hours later than usual: therefore the ASL Academy Instructional hours will be 10:00 a.m. to 3:15 p.m. Staff members are scheduled to arrive on campus at 9:45 a.m. and work until the regularly scheduled time of dismissal. Lunch is served when on an Abbreviated Day Schedule. Teachers are responsible for supervising their own students during any break period. All days cancelled must be made up at a later date as indicated on the school calendar.

V. SAFETY

Duty

All staff must report to the assigned duty on time. The liability is great if an incident was to occur and there was not a staff member at the assigned duty location. **All staff who take leave and do not require substitutes must make arrangements for someone to cover their duty before the leave is approved.** Duty persons should carry a clipboard, pen, Behavior Slips and nurse passes.

Duty Times

Before School	7:45 am – 8:00 am
Morning Recess	10:15 am – 10:35 am
Lunch & Recess	11:30 am – 12:00 pm
After School	3:15 pm – 3:25 pm (or all clear)

Fire Drills

The law requires that a fire drill be held weekly for the first four weeks of school. After this time, one fire drill is required each month. **All teachers must post a fire drill map by all doors in their classroom.**

The alarm is a loud continuous sound accompanied by flashing lights. All teachers must escort students to the designated area upon hearing/seeing the alarm. Teachers should take enrollment cards to check roll. Teacher should be aware of where students are at all times (e.g. with support staff, in bathroom, at nurse, office, lunch, etc.) Students outside of the classroom should exit the building with the adult they are with at that time. The school will practice returning into the building when “runners” notify you that “all is clear.”

Health Services, Accidents and Communicable Diseases

The nurse deals with health related concerns of students. Students who become ill or injured at school should report to the nurse’s office. The Nurse will determine if the student should remain at school or go home.

Accidents involving staff, students, parents or visitors must be taken seriously and approached with caution. The nurse will administer appropriate care for injured persons.

Teachers are requested to report all accidents they observe or hear about that may have taken place on school grounds to the Academy Administrator. Written reports are required on all accidents needing medical attention. Teachers may be asked to complete these forms if the incident took place within their duty time or classroom time.

Best practice is to call for help. DO NOT MOVE AN INJURED PERSON IF THE INJURY APPEARS SERIOUS. Get help as soon as possible from the Nurse’s office or administrative office. Accidents must be reported to the office.

Any illness due to an infectious agent such as Conjunctivitis (pink eye), Impetigo, Ringworm, or Lice should be reported to the Nurse or Office at once for investigation.

First Aid kits will be distributed to all classroom teachers.

Leaving Campus

When you are leaving campus between the hours of 7:45 – 2:45 for any reason (lunch, doctor's appointment, family emergency, illness, etc...) **you must sign-out on the Staff Sign-out sheet in the office.**

This is a precaution to make sure we have documentation of your leaving campus during your duty day.

Medications Taken by Students at School

The ASL Academy school staff, except for the School Nurse, are prohibited from providing or administering any medication, including aspirin, to any student. The nurse must be notified if any student must take medicine during school hours. Specific forms and procedures are required. Inform parents to visit with the nurse to clarify procedures with them.

Teachers are responsible for students taking their medicine when on field trips. Arrangements must be made with the nurse for medicine with plenty of time prior to the field trip.

School Safety Plan

All Staff members will be supplied a copy of the School Safety Plan and be aware of the procedures in the Plan. The School Safety Plan outlines how ASLA will proceed in the event of a Fire, Evacuation, Lock-down, and Shelter in Place situation.

Classroom teachers must also make sure they inform substitutes of the whereabouts of the Plan in their lesson plans in the event of an emergency during their absence.

School Visitors

All visitors to the school must report to the office first and request a "School Guest" badge. Teachers are encouraged to report unauthorized and suspicious persons without badges to the office.

Securing Your Classroom

Before a teacher leaves in the evening he/she must be sure doors and windows are closed and locked. The air conditioner must also be shut off. **Students should not be allowed to go into the classrooms without adult supervision.**

VI. COMMUNICATION

Classroom Website

All staff are required to develop and maintain the classroom section on the school website. This website should include information about the classroom, curriculum, special events and other pertinent information. Assignments may be posted on the website. The website should be updated at least on a monthly basis.

Classroom Newsletter

Each teacher is expected to develop and send home a newsletter/syllabus for parents. This document should include pertinent information specific to your class. Examples include: upcoming activities, lessons, celebrations for good work, items needed for the classroom, etc. AT LEAST one newsletter should go home each month. Teachers must send a copy to the Academy Administrator each month. This data will be used as artifact data in the Performance Based Teacher Evaluation. Teachers may work as teacher teams to create these newsletters.

Communication with Administration

All communication with Administration (i.e. requests) must be put in writing and signed.

A teacher must let the Academy Administrator know if an extended conference is needed 1-3 days in advance so that he/she may accommodate you on his/her calendar.

The Academy Administrator will email a weekly memo to staff with important information for the week. Teachers are to make sure to check the information on a regular basis.

Communication

The ASL Academy's school wide focus includes full access to communication. All staff members are to sign at all times. If a staff member wishes to have a verbal discussion without signing, it is considered appropriate to have the discussion in private (i.e. behind closed doors). The main exception to the sign at all times rule is a teacher of the hearing providing direct instruction to hearing students (i.e. Literacy block).

Confidentiality

Comments and discussions regarding student personalities and records should only be discussed with appropriate people in the education setting. Student behavior problems should not be part of public discussions. Professional discretion and courtesy should be used in discussing all staff/student concerns. Professional communication of educators requires no discussion of individual students and their problems in non-professional situations including teacher' lounge and other public places.

Mail/Messages

Teachers should check their mailboxes and email twice a day. Phone messages for teachers will be delivered to mailboxes. **Teachers are responsible for checking for their own messages in the office.** Office staff will make every attempt to let you know about phone messages.

Meetings

For the most part, the ASL Academy collaboration meetings will be included during the school day. However, there will be one, one hour staff meeting per month that is scheduled outside the duty day. This meeting will be scheduled at the discretion of the ASL Academy Administrative staff.

- Staff Meetings/Training and Cross Grade Level Collaboration will be held on Wednesdays from 12:00pm – 2:00 pm (place TBD) **ATTENDANCE AT WEDNESDAY MEETINGS IS MANDATORY**. If you are absent from a meeting, you are expected to provide the Academy Administrator with a written explanation.
- Student Assistance Team (SAT) meetings will be held outside the duty day on an as needed basis.

For 2010-2011 School Year:

July 14 and 15, 2010 will be Orientation and Professional Development Days for all employees. July 16, 2010 is a teacher preparation day and no meetings will be scheduled by administration.

Parent/Teacher Conferences

Parent/Teacher conferences have the potential of being the most educationally valuable event of the school year. It offers a unique opportunity for the school and parent to exchange ideas and information in an open discussion about student progress. See School Calendar for dates of conferences.

Telephones/Cell Phones

The use of cell phones for personal business during instruction time by teachers is strictly prohibited. This includes texting.

VII. GENERAL SCHOOL POLICIES

Assemblies

The Academy Administrator and Executive Director will approve school assemblies. All assemblies will support the stated elementary school curriculum.

Teachers will attend assemblies with their students. Teachers will monitor student behavior. Students are expected to be respectful and commendable audience members.

Audio-Visual/ Technology Equipment and Materials

It is the responsibility of the school secretary to maintain a checkout system of all audio-visual/technology equipment for the school. It is the responsibility of the teachers to keep audio-visual/technology equipment in a safe place in the classroom.

In the event that any AV/technology equipment should become inoperable or broken, the teacher must take it to the office with a note describing the problem.

The use of television, films, and other audio-visual materials must be restricted to the educational benefit of each program as opposed to entertainment or fill-in space. When these resources are used they must support the stated elementary school standards. All video materials must include closed captioning.

Care of Classrooms, Supplies and Equipment

The custodian is responsible for cleaning and maintenance of the classrooms. This responsibility may be extended to students in the care of supplies and equipment they use. Students are expected to pick up after themselves. Students are to assume the responsibility of keeping their desks or tables free of scratches and markings. Teachers are to monitor this process.

Chairs should be on top of desks or tables at the end of the school day. This is helpful to the custodian when cleaning classrooms (sweeping). Habits and attitudes of pride in the schools appearance need to be a priority for staff and students. These efforts will result in good organizational, work, and study habits.

Classrooms will be locked whenever the classroom is left vacant during the working day. Teachers should **NOT LEAVE STUDENTS UNSUPERVISED AT ANY TIME.** Teachers can make arrangements with neighboring teachers or the office staff if time away from students becomes necessary. Assistance can be requested from the office staff or Administration as needed.

Custodians/Maintenance Needs

Maintenance needs must be reported to the Academy Administrator or Executive Director. A work order will be submitted as needed. The custodian has certain duties he/she must complete during the workday. Any required assistance may be communicated to the Academy Administrator or Executive Director in writing with ample time for completion.

Field Trips

Field trips must reflect a strong instructional or cultural learning purpose. Field trips should be planned far in advance and a written request submitted at least ten days in advance to the Academy Administrator. An information summary must also be submitted to the Academy Administrator for approval. Parental permission (signed permission form) is necessary for any student to attend an activity off school campus.

Field Trip Procedures

1. Teacher must obtain permission from the Academy Administrator (provide information summary) at least ten days in advance.
2. Teacher must make reservations at the facility or the event.
3. With the assistance of the secretary, the teacher must reserve a bus and determine and follow all payment procedures.
4. The teacher must mark the field trip on the large calendar in the office, logging who is going and times.
5. Teacher must send and collect parent permission slips, making sure both sides are signed.
6. Teacher must solicit and acquire volunteer parent chaperones, giving the office a list of the parents who will be going on the field trip. (*At least* one adult chaperone for every 8 students is needed). Parents who chaperone must have a background check in order to be alone with students – see letter N below.
7. With the assistance of the secretary, teacher must coordinate lunch service (if applicable) at least two weeks prior to field trip.
8. Teacher must notify the Nurse about field trip and makes arrangements for any students on medication.
9. Teacher must notify support staff of student absence due to field trip.
10. Teacher must make arrangements with another teacher for students who DO NOT have permission to attend the field trip.
11. Teacher must assure that any assigned school duty is covered during the absence.
12. Teacher must assure that all contact numbers are registered with the office staff prior to leaving campus.
13. Teacher must take permission slips on field trip. Emergency information is listed on these forms.
14. The class is to stay together at all times. An ASL Academy certified staff member must be with the group at all times.

The Academy Administrator and office staff must know where teacher and students are at all times when off the school grounds. A teacher must NEVER take a student on a field trip without a signed parent permission form and NEVER leave a field trip site without all students accounted for. A teacher must have means to contact the school for help if necessary.

Inclement Weather

On days of rain and/or snow, please adhere to the following Inclement Weather Locations for duty:

TBD

Keys

Teachers will be supplied with keys to their rooms. Master keys will only be supplied to personnel in regular need of such keys. All keys will be accounted for and turned in at the end of each school year.

Lost and Found

Lost and found articles are kept in an area near the (TBD). Small items (money, jewelry, change purses, keys, etc.) should be brought to the office where they are kept until claimed. After a reasonable time period, unclaimed articles will be given away or thrown out.

Lounge

The Lounge is for the use of all staff members. It is a place to have lunch, pick up mail and visit. Please keep this area clean. Refrigerators and microwaves are for staff convenience and are to be kept clean. Students are not allowed in the staff lounge area.

Parent Advisory Committee

The Parent Advisory Committee offers the opportunity for meaningful engagement between the school and its parent community. The Parent Advisory Committee will have monthly meetings. These meetings offer excellent opportunities for parents and teachers to get together to discuss programs or other mutual concerns. These meetings are optional, but a strong support of this association exhibited by the teaching staff is very important. Additionally, the Family and Community Services Coordinator will provide opportunities for parent classes and events. In order to have a true community school, teacher's involvement and participation in these events is strongly encouraged.

Retention of Students

Teachers who have recognized students with significant academic problems should notify the Academy Administrator of the situation no later than the end of the second trimester if retention is anticipated as a possible consideration. An Academic Intervention Plan (AIP) must be written by the teacher and approved by Administration during the fall. This plan must be reviewed with parents as the end of the year approaches. Determination of retention will be made as a team. This team will include the teachers, parents, Academy Administrator, and Support Staff.

Numerous documented interventions need to be a part of the student's remediation plan. Please remember that it is always best practice to have parent in agreement when retaining a student.

Student Assistance Team

The Student Assistance Team (SAT) is made up of teachers and support personnel. The function of this team is to support teachers with students who may be having academic and/or social difficulties in the classroom setting. Teachers have the opportunity to discuss their concerns with this team and certain strategies/interventions are suggested for the teacher to try with the student to address concerns. Specific forms and parent notification are required. **The SAT process is meant to serve as a proactive measure to support students in the classroom and should not be assumed as a vehicle for Special Education services.**

Teacher Dress

Teachers at the ASL Academy should dress in a manner that reflects high standards of professional conduct. Each teacher's attire must promote a positive, safe, and healthy learning environment. At minimum, teachers must follow all the rules of the Student Dress code and remain in professional attire for school.

Textbooks

Teachers are to maintain an inventory control system for all books and/or materials placed in their classroom. Administration will provide forms needed to complete this inventory. If students take textbooks home, the teacher must record this. Payment is required for books that are lost or damaged.

Testing

The State of New Mexico mandates that a number of tests be given to students. This is done in order to assess student progress and determine if a school is working toward its adequate yearly progress standard. Beyond these mandated tests, there may be school initiated, diagnostic tests ordered to determine if an individual student would benefit from a program change that would be more suitable to his/her needs. Parents who object to having their student(s) tested must notify the Academy Administrator in writing.

Assessments

Short cycle assessment dates and NMSBA dates will be announced. It is the teacher's responsibility to keep apprised of all assessments required for their students. The teacher must turn in all assessments and additional documentation in a timely manner.

Please Note: Support Personnel and Educational Assistants may be pulled from their regularly assigned duties to assist with the administration of district and state mandated assessments (i.e. NMSBA, NMELPA, DRA, etc.) as needed to best meet the testing and /or accommodation needs of students.

VIII. RECORDS

Attendance Reporting

The classroom teacher must keep attendance records for all of his/her students. If parents have called and excused the student, this information will be forwarded to the teacher. **Please note – the teacher’s attendance book is the official record book for student absences.**

Forms

Staff members can find all necessary ASL Academy forms (Leave Slips, Field Trip Requests, Permission Slips, Progress Reports, End of Year Procedures, Placement, etc.) in a filing cabinet in the office. SAT forms can be acquired from the SAT Chairperson/Academy Administrator.

Lesson Plans

Lesson plans should be readily available at all times. Teachers have the flexibility to use a traditional plan book or may prepare a personal system that better suits their needs. Lesson plans should provide a guide for the teacher giving daily activities. Lesson plans should provide the necessary information for substitute teachers to enable them to carry out the prescribed instructional program. All teachers are expected to have readily available, functional, written lesson plans which include current seating or room arrangement charts, daily schedules, P.E. schedule, duty schedule, library and computer schedules. A set of Emergency Substitute Plans must be on file in the office.

Progress Reports

The ASL Academy Progress Reports are sent home at every intersession period. Students must be in attendance for a minimum twenty days in order to receive a Progress Report. When a student transfers, the teacher must complete a Progress Report for the grading period if that student has been in class for twenty days or more. The Progress Report represents ongoing assessment based on what is happening in the classroom. A more detailed Written Student Evaluation Report is required with mid and end of year Progress Reports.

A teacher must **NOT** give out Progress Reports/Written Reports before the last day of school in June without permission from Administration. If a parent asks for an early Progress Report, he/she must give a self-addressed stamped envelope so that the report card can be mailed.

Records and Reports

A. Procedure for Early Student Withdrawal

Teachers must complete the cumulative folder on the same week that a student withdrawals from school. Cum. folders must be up to date and all forms completed as needed. Teachers must indicate if the student has been enrolled for more or less than 20 days. Teacher must assure all textbooks and library books are returned by students prior to withdrawal.

B. Cumulative Record Folders

A cumulative record folder is to be completed for each student. The cumulative folders should be updated in June (along with any Special Education files) unless the student transfers or moves before this time. Discretion should be used in making comments in the cumulative record. Cumulative records are housed in the office. Cumulative records must be

checked out of the office and returned on the same day. **Cum. folders are never to be taken out of the school.** Teachers will receive, as part of the end of year procedures, a list of documents which need to be included in the cum. folder for all students.

C. Emergency Cards

Each teacher will keep one copy of the student's enrollment/emergency card. It is important that the teacher verifies current address and phone numbers frequently. Update office as needed.

D. Attendance Record

The teacher's attendance book is the official record of student attendance. In addition, it is a legally binding account of the student's presence in the school. Attendance should be logged and reported daily. Any truancy issues should be immediately brought to the attention of the Administration. All attendance records will be turned in at the end of the school year to the office.

Student Information

It is very important that teachers maintain current and accurate records for all students. Teachers should verify student addresses and phone numbers during Parent Teacher Conferences, PLP meetings, IEP meetings, or as needed. Teachers must ensure that emergency contact phone numbers are part of their regular records. Any updated information is to be shared with the main office and nurse's office immediately.

IX. STUDENT POLICIES SECTION

Attendance

The ASL Academy believes the best way students can learn is if they are in school. State law requires daily school attendance for those between the ages 5 and 18, or until graduation from high school. As a school we are committed to having a 95 percent student attendance rate. To reach this goal, we ask for your support by bringing your child to school on time everyday.

Absences

Students are allowed no more than five (5) unexcused absences per semester and no more than ten (10) per year. If your child is absent please call the school so we can note the absence and mark it excused. Absences may be excused for the following reasons, with appropriate documentation: doctor's appointment, death in the family, religious commitment, illness, family emergency, diagnostic testing, and school visit. An unexcused absence is any absence that does not fit into the prescribed guidelines and is not school-related.

Tardies

We believe that being present all day is also important. If your child is **Tardy** (arriving to class after the 8:00 bell rings) you must bring them to the office to get a tardy slip. After ten (10) unexcused tardies, the school will notify a Court Liaison, who will notify the parents/guardians with a Notice of Preliminary Inquiry. An unexcused tardy is any consistent behavior that causes a student to be late (i.e. not getting up on time, missing the bus, etc).

Early Dismissal

Early dismissal is defined as leaving school for any amount of time prior to the regular dismissal time. If the amount of time exceeds two hours, then a ½ day afternoon absence will be logged. When possible, parents are encouraged to plan appointments outside the school day. Children may be released for appointments by the following procedure:

1. Parent/guardian must send a note to the teacher with your child in the morning.
2. Parent/guardian must come to the office to sign your child out. (A photo ID may be required)
3. Office personnel will call the student from class to come to the office.
4. Teachers have been instructed to release to the office only. **Parents are not permitted to go directly to the classroom.**

Cafeteria Procedures & Lunch Schedule

Schedule - TBD

The following criteria behavior is expected of all ASL Academy students:

- Students will remain seated until they are finished eating
- Students will visit quietly when eating
- Students will eat their own food and not share
- Students are responsible for cleaning their own table space
- Students will not carry food out of the lunch area (only under teacher supervision)
- Misconduct in the lunch area can lead to the loss of recess privileges

Homework

Homework should serve as an extension of lessons presented in class and benefit the student by providing practice and reinforcement. Homework should be assigned, reviewed in a timely manner, and graded by the teacher. **Homework should not be assigned as a punishment.** Homework should be given within a reasonable time frame for completion. Students in the primary grades should not be asked to complete homework for more than 20-30 minutes. Students in the intermediate grades should not be asked to complete homework for more than 45 minutes to 1 hour.

Monitoring Students in Hallways

All classroom teachers are required to have a system in place to monitor students leaving their classrooms during instruction time (i.e. hall pass, sign in and out, etc.). It is very important that teachers are aware of student whereabouts at all times within school grounds. **If a student does not return to the classroom within 3-5 minutes, notify the office immediately.**

School Parties for Students

School parties should have a strong instructional/curriculum link and not be drawn out over excessive periods of time. Teachers should be sensitive of students that do not celebrate certain holidays or themes and honor parent requests to exclude students from such activities.

Student Discipline and Conduct Expectations

The Albuquerque Sign Language Academy Parent/Student Handbook is the guideline to be used when handling student discipline concerns. Every ASL Academy family receives this handbook when school starts. It is the expectation that all staff will review the Parent/Student Handbook for all policies and procedures when dealing with students.

The ASL Academy Administration and Staff hold high, positive expectations for all students. In turn, this makes the school a safe and healthy environment for learning. ***Teachers must review school and classroom rules with students frequently.*** The teacher should be fair and consistent when correcting student conduct and behavior. Deviations in method and policy create confusion for the student. Positive measures are always preferable to negative measures.

A TEACHER SHOULD NOT HESITATE TO CONSULT WITH THE ACADEMY ADMINISTRATOR WHEN A DISCIPLINE PROBLEM ARISES IN THE CLASSROOM.



The Albuquerque Sign Language Academy
children. family. community. possibility.

**Parent/Student Handbook
2010-2011**

**The Albuquerque Sign Language Academy
Parent/Student Handbook
2010-2011**

MISSION STATEMENT

The mission of the Albuquerque Sign Language Academy is to improve educational outcomes for deaf, hard of hearing, and hearing students in the greater Albuquerque area by providing a rigorous standards-based bilingual educational program which utilizes American Sign Language and English to achieve academic excellence, support family involvement, and promote multicultural community partnerships.

ACHIEVEMENT OF MISSION

The Albuquerque Sign Language Academy will successfully achieve its mission by creating a learning environment in which the following are true:

- Student population includes deaf, hard of hearing and hearing students, all of whom express feelings of membership within the school community, as reflected in teacher observations and student self-assessments.
- School curriculum and classroom environment reflect high academic expectations of all students, regardless of special needs, and promote acquisition and fluency of both ASL and English for all students, as demonstrated in regular student evaluations.
- Teachers and parents collaborate frequently, assess student performance regularly, and adjust curriculum and/or student placement as necessary to ensure each child is being appropriately challenged and demonstrating measurable progress in all subject areas, as displayed through attendance at Individualized Educational Plan (IEP) or Personal Learning Plan (PLP) meetings and parent-teacher conferences.
- Parents possess an understanding of the critically important role they play in their child's academic, social and emotional development and well-being - a role which no school or community can substitute – as reflected in their participation at educational workshops for parents and other school sponsored events.
- School leaders and community stakeholders develop cooperative relationships in order to further grow and enrich the school program, as shown through mutual promotion of multicultural community events and increased student enrollment.

Admission Policies

The ASL Academy is a free public charter school open to all students without any admission requirements. However, because the educational philosophy and program require direct instruction in American Sign Language, it is strongly recommend that students who initially enroll in the program during the second grade and subsequent grades have previous exposure to ASL and a basic level of receptive and expressive sign skills in order to fully understand the curriculum and progress academically. Enrollment will be open to all students without regard to race, color, national origin, creed, sex, ethnicity, behavior, language proficiency, or academic achievement.

Students will be enrolled through a lottery system. Enrollment applications will be posted to the website in November 2009 and will be accepted by the Governance Board on an ongoing basis until January 15, 2010. The initial student lottery will held on January 31, 2010 by a designated Board Officer. All students selected through the lottery process at that time will be granted admission to the ASL Academy for the 2010-2011 school year. The sibling(s) of any student chosen for enrollment will automatically be eligible for enrollment pursuant to the Charter Schools Act, Chapter 22, Article 8B NMSA.

Thereafter, subsequent lotteries to fill remaining vacancies will be held on the last business day of each month until the school reaches capacity. At that time, any remaining students not selected for enrollment will be placed on a waiting list.

Upon their child being accepted for enrollment, families will be promptly notified via email, telephone or a letters sent by regular mail. Parents are encouraged to complete and submit all student registration materials within 30 days of their student being accepted in order to secure their child's position for the coming school year. Failure to submit registration materials by May 15, 2010, regardless of the date the child was selected in the lottery, will result in forfeiture of that slot.

In subsequent years, students already enrolled in the school, along with their siblings will be admitted prior to a lottery draw. All other students will be enrolled via the lottery process.

New students must provide a copy of their birth certificate, current vaccination records, and a current IEP if applicable.

Contact Information for School

- TBD

School Hours/Daily Schedule

Instructional Day

First Bell - 8:00am

Dismissal - 3:15pm

Students are to be in morning meeting by 8:00am or they are tardy and need to go to the office for a tardy slip.

Children should not arrive earlier than 7:45 a.m. or remain on the campus later than 3:25 p.m., unless they are registered and participating in the After School Program or Tutorials.

Supervision **WILL NOT** be provided for students who arrive before 7:45 a.m. or remain later than 3:15 p. m. These procedures are designed for the safety and well being of your children.

Recess - Morning Recess 10:15am – 10:35am
 Lunch Recess 11:50am – 12:00pm

All children are to go out and play at recess unless a disciplinary action is in effect. If, for any reason, a child must remain inside due to a long-term health condition, the school must have a note from your physician explaining the reason.

Please remember to dress your child appropriately for the weather. Please know that children will go outside during cold, snowy weather. Recess is an enjoyable time for students if they are dressed for the weather.

Abbreviated Schedules due to Inclement Weather

If inclement weather (rain or snow) is a pending issue before school begins, students will be directed to report to the following locations: TBD

Abbreviated Day is a shortened day that begins TWO HOURS LATER than the regular schedule but ends at the regular time. The 1st bell will ring at 10:00. School will dismiss at 3:15. The ASL Academy will follow the same abbreviated days as the local district.

PLEASE LISTEN TO LOCAL RADIO STATIONS AND/OR WATCH THE TELEVISION FOR ANNOUNCEMENTS CONCERNING CHANGES TO THE SCHOOL SCHEDULE.

Attendance

The ASL Academy believes the best way students can learn is if they are in school. State law requires daily school attendance for those between the ages 5 and 18, or until graduation from high school. As a school we are committed to having a 95 percent student attendance rate. To reach this goal, we ask for your support by bringing your child to school on time everyday.

Absences

Students are allowed no more than five (5) unexcused absences per semester and no more than ten (10) per year. If your child is absent please call the school so we can note the absence and mark it excused. Absences may be excused for the following reasons, with appropriate documentation: doctor's appointment, death in the family, religious commitment, illness, family emergency, diagnostic testing, and school visit. An unexcused absence is any absence that does not fit into the prescribed guidelines and is not school-related.

Tardies

We believe that being present all day is also important. If your child is **Tardy** (arriving to class after the 8:00 bell rings) you must bring them to the office to get a tardy slip. After ten (10) unexcused tardies, the school will notify a Court Liaison, who will notify the parents/guardians with a Notice of Preliminary Inquiry. An unexcused tardy is any consistent behavior that causes a student to be late (i.e. not getting up on time, missing the bus, etc).

Early Dismissal

Early dismissal is defined as leaving school for any amount of time prior to the regular dismissal time. If the amount of time exceeds two hours, then a ½ day afternoon absence will be logged. When possible, parents are encouraged to plan appointments outside the school day. Children may be released for appointments by the following procedure:

1. Parent/guardian must send a note to the teacher with your child in the morning.
2. Parent/guardian must come to the office to sign your child out. (A photo ID may be required)
3. Office personnel will call the student from class to come to the office.
4. Teachers have been instructed to release to the office only. **Parents are not permitted to go directly to the classroom.**

Bicycles, Skateboards, Scooters and Rollerblades

Students that live in the vicinity of the school may ride bikes to school; however those students who ride bikes to school must observe safety precautions. **Bikes must be walked on and off the school grounds; this includes the sidewalk in front of the school. Any student who fails to follow this rule will not be allowed to bring a bike to school.** Bikes must be parked and locked in the bike racks located near the first grade wing. Locks must be provided by students. The school is not responsible for any stolen items.

Skateboards, Scooters, Rollerblades, and "Heelies" are not allowed at school. These items will be confiscated and returned to parent. Please discourage students from bringing these items onto our campus.

Cafeteria Procedures & Lunch Schedule

Schedule TBD

The following criteria behavior is expected of ASL Academy students:

- Students will remain seated until they are finished eating.
- Students may visit quietly when eating.
- Students will be expected to eat their own food.
- Students are responsible for cleaning their own table space.
- Students will not carry food out of the lunch area (only under teacher supervision).
- Misconduct in the lunch area can lead to the loss of recess privileges.

Student Information Changes

It is imperative that the school office be notified of a change of address, home or work telephone number, or emergency information during the academic school year.

Communication Policy

In order to maximize students' exposure to American Sign Language, and to show respect for all members of our school community, all students, staff and visitors are asked to make an attempt to use sign language when communicating.

Discipline/Student Behavior

Each staff member at the ASL Academy accepts responsibility for maintaining an environment of respectful conduct and the establishment of programs that promote positive relationships among students and staff. A student's actions should reflect high standards of behavior as established by the principals and teachers.

The staff requests parental support in helping maintain appropriate conduct in the school. Children's behavior should reflect self-respect and consideration for the rights, feelings, and property of others.

Classroom teachers are expected to maintain discipline in their own classrooms with a specific emphasis on promoting and recognizing positive behaviors among students. Inappropriate behavior that occurs in or outside of the classroom (i.e. during recess) may result in a student receiving a Behavior Slip. This slip is used to communicate discipline concerns among staff, administration, and parents.

When a student receives a Behavior Slip, he/she is called to meet with the Principal to discuss the behavior. Depending on the number of Behavior Slips a student has received during that trimester or the severity of the child's infraction, i.e. fighting, possession of a weapon, etc., the consequence may result in suspension from school. However, most offenses result in the student attending Redirection during his/her recess time.

The overall goal of redirection is to provide students with an opportunity to reflect on their behavior and to create a safe environment for students that helps to prevent further infractions. The school will consistently address student misbehavior and inform parents of problems that their student is demonstrating at school. The school is also committed to remaining proactive and supportive as we address student safety everyday.

School-wide Behavioral Expectations and Indicators:

<i>Expectations</i>	<i>Indicators</i>
<i>Do what you agree to do</i>	<ul style="list-style-type: none"> ▪ <i>Attend school regularly</i> ▪ <i>Agree to learn</i> ▪ <i>Agree to follow rules</i> ▪ <i>Agree to complete homework</i> ▪ <i>Agree to dress according to school rules</i>
<i>Give your best effort</i>	<ul style="list-style-type: none"> ▪ <i>Complete tasks given</i> ▪ <i>Follow directions given</i> ▪ <i>Bring supplies to school</i> ▪ <i>Demonstrate self-esteem/pride</i> ▪ <i>Do not put others down</i>
<i>Treat others with dignity and respect at all times</i>	<ul style="list-style-type: none"> ▪ <i>Demonstrate respect</i> ▪ <i>Demonstrate caring</i> ▪ <i>Celebrate success</i> ▪ <i>Be honest</i> ▪ <i>Communicate openly</i> ▪ <i>Make safety a priority</i>
<i>Have fun</i>	<ul style="list-style-type: none"> ▪ <i>Have friends</i> ▪ <i>Be happy</i> ▪ <i>Get along with adults and peers</i> ▪ <i>Be safe</i> ▪ <i>Focus on learning</i>

Behaving appropriately is an essential aspect of learning. Students are accountable for their behavior on school property, on the school bus, at the school bus stops (IF APPLICABLE), on the way to and from school, and when attending school-based functions.

Playground Rules:

TBD

Other Disruptions of the Educational Process

1. No portable entertainment/computer devices are allowed during school hours.
2. Possession of pornography or inappropriate materials in any form, including inappropriate use of the internet, will result in suspension and possible expulsion.
3. Students in possession of alcohol, other illegal drugs or inhalants or under the influence of alcohol, other illegal drugs or inhalants:

First Violation:

- Parents/guardians will be contacted.
- Student will be placed on Substance Use/Abuse Probation. (While on probation, any violation of school policy will warrant expulsion.)
- Student will be placed on a 5-day out-of-school suspension.
- Police report will be filed on the incident.

Second Violation: Student will be suspended until the end of the session.

The ASL Academy defines possession of alcohol, other illegal drug or inhalant as: on a student's person, in a student's body or bloodstream, in an item belonging to a student, such as but not limited to, a backpack or purse, or being held by another person. Under the influence of alcohol, other illegal drugs or inhalants is defined as having alcohol or drugs in the bloodstream or body and/or other suspicious behavior.

Alcohol, other drugs, inhalants and drug paraphernalia may be described as:

1. Alcohol is any liquor, wine, beer or other beverage containing alcohol,
2. Drugs are illegal drugs including marijuana, inhalants, legal prescriptions over the counter drugs used or possessed or distributed for unauthorized purposes, and
3. Drug paraphernalia is any equipment/apparatus designed for, or used for the purpose of, measuring, packaging, distributing or facilitating the use of drugs.

We encourage a healthy life-style and support our students in being drug and alcohol free. Involvement on or near school grounds with tobacco, alcohol, or drugs in any form is strictly prohibited. ASL Academy is deemed a drug free zone. The administration of the ASL Academy makes known its legal authority and intent to search school property, facilities, and student belongings when there are reasonable grounds.

Harassment

Harassment is unacceptable conduct and will not be tolerated. All supervisors, employees, students and parents should exercise due care to see that the school is free from all forms of harassment. Law prohibits harassment. For purposes of this policy, the term harassment consists of knowingly pursuing a pattern of conduct, which serves no lawful purpose, with the intention to annoy, seriously alarm, or terrorize another person. The conduct must be such that it would cause a reasonable person to suffer substantial emotional distress.

Sexual Harassment

Sexual harassment includes, but is not limited to, threatening adverse actions if sexual favors are not granted; promising preferential treatment in return for sexual favors, unwanted and unnecessary physical contact; a pattern of offensive remarks, including unwelcome comments about appearance, obscene jokes or other inappropriate use of sexually explicit or offensive language, the display of sexually suggestive objects or pictures; and unwelcome sexual advances by vendors or visitors if the advances are condoned explicitly or implicitly by the school.

Parent/Guardian Harassment

Under normal circumstances, a student is not to be deprived of a public education on grounds relating to the attitude of parents or guardians; nevertheless, it is recognized that a situation could arise in which the uncooperative or disruptive attitude of parents/guardians might so diminish the effectiveness of the school in acting in loco parentis (in place of parents) that continuation of the student could be morally impossible. Such situations include, but are not limited to:

- Any parent, guardian or other person who insults or abuses any faculty/staff or administrator at any time on school premises, or at some place in which the faculty/staff or administrator is required to be at that place in connection with assigned school activities.
- Harassment on the basis of race, color, religion, gender, national origin, age or disability. Harassment would include verbal or physical conduct that denigrates or shows hostility or aversion toward an individual because of one's race, color, religion, gender, national origin, age, or disability, or that of his/her relatives, friends, or associates and that has the purpose or effect of creating an intimidating, hostile, or offensive work environment; has the purpose or effect of unreasonably interfering with an individual's work/study performance; or otherwise adversely affects an individual's employment opportunities.
- Harassment may constitute a form of employment discrimination when:
 - Submission to such conduct is made, either explicitly or implicitly, a term or condition of an individual's employment or status as a student;
 - Submission to or rejection of such conduct by individuals used as the basis for a decision affecting the individual's employment or status as a student;
 - Such conduct has the purpose or effect of unreasonably interfering with an employee's work performance;
 - Such conduct has the purpose or effect of creating an intimidating, hostile or offensive work or school environment.

Suspension

Suspension is a temporary removal of a student from the student body and the loss of all student body privileges. Suspension will be preceded by notification to a student's parents/guardians.

Disciplinary causes leading to suspension and disciplinary probation are:

- Any gang-related activity.
- Any threat of violence directed toward anyone on school premises.
- Possession or Use of Alcohol, Other Drugs, Tobacco, or Inhalants.
- Fighting.

- Theft.
- Vandalism/Use of graffiti.
- Repeated/serious misconduct resulting in administration/behavioral detentions.
- Possession of weapons (real or look-a-like)
- Forgery or use of forged forms, permission slips, notes, etc.
- Having inappropriate/ obscene material, including inappropriate use of the internet.
- Harassment of another individual.
- Possession and/or use of fireworks, lighters or matches.

In-School Suspension

Students may be assigned to an in-school suspension for discipline. The ASL Academy Administration will determine infraction severity for in and out of school suspension. Typical reasons for In-School Suspension include: infractions of school policies such as, but not limited to, chronic dress code violations, disrespectful behavior against peers and teachers, improper language, theft, cheating, damaging school property, fighting and bullying. This listing could include other infractions dependent upon administrative discretion.

Expulsion

The expulsion of a student from the ASL Academy will be considered as a sometimes-necessary discipline measure for the common good of the school community. Parents will be notified immediately, followed by a conference with the school administration team. A letter will be provided to the parents and a copy placed in the student's cumulative file outlining the offense(s) and subsequent expulsion. Situations that may warrant removal of a student include:

- Major theft or any criminal act.
- Chronic and incorrigible misbehavior which undermines school discipline and impedes academic progress of fellow students.
- Delinquency and immorality which constitute a menace to others or which may warrant commitment to a correctional institution.
- Non-compliance with disciplinary probation, weapon possession, or drug policy.

The principal is the final recourse in all disciplinary situations and may waive any disciplinary rule for just cause at his or her discretion.

Field Trips

Field trips are planned to enhance the curriculum. Transportation for field trips is by a contracted bus company. Children must bring a signed permission slip and any required fees to attend a field trip. Student conduct is expected to exemplify the highest standards of respect and courtesy.

Governance Board

The mission of the ASL Academy's Governing Board is to aid with decisions in matters that will academically, economically, and socially better the school by acting as a liaison between the communities of the ASL Academy and the school's administration.

Health Room Services/ Medication

The ASL Academy has a full-time nurse to provide health services. In the event of an injury, first aid will be provided. If the injury is of a serious nature, the parent will be called and transportation arranged. Parents will be notified of any illness. If parents cannot be reached in the case of severe illness or injury, 911 may be called. It is imperative that parents notify the health office of any phone number updates in the event of an emergency.

The ASL Academy school staff is prohibited from providing or administering any medication, including aspirin, to any student. Students who need occasional medications, such as antibiotics for colds, earaches, and sore throats, are to take these medications at home if possible. Medication that is prescribed three (3) times per day can be given before the student comes to school, after school, and again at bedtime. However, if medication **MUST** be given at school, it must be personally delivered by the parent and accompanied by a written authorization from a physician that includes the name of the medication and instructions on how it should be administered (time and dosage). The school nurse will then be the only authorized person to administer medications.

Homework

Homework is an extension of lessons presented in class and benefits the student by providing practice and reinforcement. When your child is absent from school or out for an extended period of time and needs his/her homework assignment, please telephone the school office in the morning. Homework assignments can be picked up in the office at the end of the school day. Homework is to be completed in a reasonable amount of time related to the child's age, grade, and ability. Students in the primary grades should have homework that takes no more than 20-30 minutes a night. In the intermediate grades, homework time should take no more than 1 hour per night.

Parent Advisory Committee

The objective of this organization is to promote close cooperation and communication between administration, teachers, and families of the ASL Academy's students. Monthly meetings will be held. As the school strives to build and nurture its students' total development, parent participation in this group is strongly encouraged. Through collaborative efforts of school and family we will achieve our goals. A calendar and schedule of parent meetings and events will be sent home monthly with the newsletter and published on the school's website.

Intersession classes

TBD

Internet Use

Technology is a large part of the curriculum at the ASL Academy. Please make sure to review the Acceptable Use of the Internet Policy.

Lost and Found

Please mark your child's possessions with his/her name. All articles lost on the playground or in the building should be placed in the "lost and found" box in the cafeteria. Articles of value should be given to the secretary. Approximately three times each year, unclaimed articles of clothing are donated to a local clothing bank.

Parent Concerns/Questions

Parents having concerns about their child's progress in school should first contact the child's teacher and make arrangements for a discussion. This usually alleviates the concern. Should the issue continue, do not hesitate to contact the Academy Administrator. A conference with all involved parties, the parent(s), teacher, and administrator, will be scheduled and all issues will be addressed.

Safety

Campus security is a top priority at the ASL Academy. Ensuring that all adults on campus have legitimate business is critical. We welcome families of our students. All visitors must check in at the office and receive a visitor's badge to wear for the duration of the visit. Identification will be checked, and legitimate business will be verified. Scheduling visits ahead of time ensures that the time is appropriate for everyone. Please be understanding of this when questioned and asked for identification.

The key to successful management of emergency situations is practice. Both evacuations and lockdowns are practiced regularly. Classrooms are equipped with emergency supplies in the event of a lockdown. If there is an emergency at the ASL Academy, information can be obtained by calling the City at 311.

Student Awards

"Student of the Week" will be awarded to one student per week. The award is based on citizenship, respect, consideration, attitude, responsibility and thoughtfulness. There will be a special bulletin board in the hall for Student of the Week information.

Academic Awards will be awarded at the end of the school year for those students that exhibit outstanding academic achievement and progression.

Student Drop off and Pick up Procedures

TBD

Student Dress

Students at the ASL Academy should dress in a manner that reflects standards of personal conduct so that each student's attire promotes a positive, safe, and healthy atmosphere within the school. Students and their parents/guardians may determine personal appearance and dress except where their dress or personal appearance presents a health/safety hazard or disruption/distractions in the educational process.

The following dress code will be enforced:

- Shoes or durable footwear must be worn on campus at all times. Shoes with wheels in the soles are prohibited.
- Hats, headgear (including jacket hoods), and sunglasses may not be worn inside the school building.
- Students may not wear extended (hanging) belts, bandanas or wallet chains.
- No skin may show between the bottom of a shirt or blouse and the top of pants or skirts.
- Tank tops may be worn in warm weather. Tank top straps must be the width of three fingers or more.
- Spaghetti straps are not allowed.
- Baggy or low hanging pants are prohibited. Pants should rest no lower than hip level.
- Shorts and skirts should be longer than the student's longest finger when standing upright and arms are relaxed at the sides.
- Clothing related to gang appearance may not be worn.
- Clothing with inappropriate language, pictures, and/or excessive tears may not be worn.

Students who wear inappropriate clothing to school will be sent to the office to call their parents for a change of clothes. If we are unable to get in touch with a parent, the child will be sent to the nurse's office to change into something we have at school.

Student Performance and Evaluation

At the ASL Academy operates on a year-round schedule. Parent/Teacher conferences will take place in November and March. A progress report will be given to parents prior to each interim along with a bi-annual written report. Every student will have an individualized plan for their education (IEP or PLP).

Telephones/Cell phones

Students may not use cell phones at school. If your child has a cell phone and brings it school, it is to remain OFF and in their backpack at school. If a child is found with a cell phone during the school day, it will be taken away from the child and given to the Academy Administrator. The child may pick up the cell phone after school. If this occurs a second time, a parent/guardian will need to have a conference with the Principal before the cell phone will be returned. Students will be permitted to use the telephone in the office in cases of emergency.

Toys

All toys are prohibited from school unless specific permission is granted by the student's teacher. If allowed, any equipment brought must be clearly marked with the student's name. **Toys such as baseballs, metal or wood baseball bats, knives, slingshots, sticks, squirt guns, rifles, radios, electronic games, watches with games, tape players, etc. are not permitted on school grounds.** If toys are brought to school without permission, they will be held in the Administrative Office and returned only to a parent/guardian. Toys may not be traded or sold. The ASL Academy is not responsible for any toys lost or stolen.

What You Can Do To Help Prepare Your Child For School?

The road to success in school begins at home. Good health, loving relationships, parental guidance and praise, and many opportunities to learn, all help children do well later in life. As a parent, you are the most important person in your child's life. Throughout the early learning years, you can do many simple things to help your children grow, develop, and have fun learning.

Here are some things you can do:

- Encourage your child to want to learn and go to school everyday.
- Read aloud to your child daily. This gives your child a chance to learn about language, enjoy the sound of your voice, and be close to you.
- Set high standards for your children and encourage them to try new things.
- Pay attention to what your child has to say. This is the best way to learn what's on his/her mind, what he/she knows and doesn't know, and how he/she thinks and learns.
- Provide nutritious foods, safe places to play, regular medical care, and a regular sleep schedule for your child.
- Teach your child to get along with others, to share, and to take turns.
- Set a good example for your children. They will imitate what you do.
- Teach your child to feel good about himself/herself and that he/she can succeed.
- Set limits for your child. This is a sign of love, which your child appreciates, even if he/she argues against them.
- Be generous with your praise. Always compliment your children for their efforts.
- Communicate, communicate, communicate!

**STATE EQUALIZATION GUARANTEE REVENUE ESTIMATE WORKSHEET
BASED ON MEMBERSHIP PROJECTIONS**

Charter School Name **Alb. Sign Language Academy** Charter School Number **2010-2011**

	3Y DD	4Y DD	C & C-GIFTED	D & D-GIFTED	*BASIC	GRADE TOTAL
Kindergarten Program						
ECE/KN						0.00
NEW FDK - FDK			2.00	5.00	1.00	8.00
Basic Program						
Grade 1			2.00	5.00	1.00	8.00
Grade 2			2.00	5.00	1.00	8.00
Grade 3			2.00	5.00	1.00	8.00
Grade 4			2.00	5.00	1.00	8.00
Grade 5						0.00
Grade 6						0.00
Grade 7						0.00
Grade 8						0.00
Grade 9						0.00
Grade 10						0.00
Grade 11						0.00
Grade 12						0.00
Totals	0.00	0.00	10.00	25.00	5.00	

*INCLUDE STUDENTS RECEIVING A/B SERVICES

ECE FTE	8.00
TOTAL GRADES 1-12	32.00
SUBTOTAL MEM	40.00
TOTAL MEM	40.00

Is this a Charter School?	y
Is this for the 40th Day?	N

	ECE FTE	COST INDEX	PROGRAM UNITS		
Kindergarten					
ECE, FDK-New, and FDK	8.00	1.44	11.520	Kindergarten Units	11.520
Basic Program (Grade Total)					
Grade 01	8.00	1.20	9.600		
Grade 02	8.00	1.18	9.440		
Grade 03	8.00	1.18	9.440		
Grade 04	8.00	1.045	8.360		
Grade 05	0.00	1.045	0.000		
Grade 06	0.00	1.045	0.000		
Grade 07 *	0.00	1.25	0.000		
Grade 08 *	0.00	1.25	0.000		
Grade 09 *	0.00	1.25	0.000		
Grade 10 *	0.00	1.25	0.000		
Grade 11 *	0.00	1.25	0.000		
Grade 12 *	0.00	1.25	0.000		

* Includes Vocational Weighting

Basic Program Units **36.840**

	MEM	Factor		
Special Education				
C & C-Gifted	10.00	1.00	10.000	
D & D-Gifted	25.00	2.00	50.000	
3 Yr. DD	0.00	2.00	0.000	
4 Yr. DD	0.00	2.00	0.000	
A/B MEM (Reg/Gifted)	2.00	0.70	1.400	Special Ed. Unit: 61.400
Adjusted Ancillary FTE	4.00	25.00		Ancillary FTE Units 100.000
				Total Special Education Units 161.400

	MEM	Factor		
Elementary Fine Arts Program				
	40.00	0.0500		Fine Arts Program Units 2.000

	HOURS	MEM	FTE	Factor		
Bilingual Program						
1			0.00			
2			0.00			
3		40.00	20.00			
Total Bilingual		40.00	20.00	0.500		Bilingual Units 10.000

(May not total more than the no. of students in grades K-12.)

Elementary P.E. Program

**STATE EQUALIZATION GUARANTEE REVENUE ESTIMATE WORKSHEET
BASED ON MEMBERSHIP PROJECTIONS**

List each school with a projected MEM (Basic 1-9 and Operational Fund Early Childhood FTE EXCLUDING SPECIAL ED.) of less than 200
 $((200 - MEM)/200) \times (1.0 \times MEM) = \text{UNITS}$

SCHOOL NAME	CODE	GRADES	MEM	UNITS
			3.00	2.955
				0.000
				0.000
				0.000
				0.000
				0.000
				<u>0.000</u>
TOTAL ELEMENTARY/MIDDLE SCHOOL/JUNIOR HIGH UNITS				2.955

2. SENIOR HIGH SCHOOL

List each school with a projected MEM (Basic 7-12 EXCLUDING SP. ED.) of less than 400 (program units will be computed using the formula which yields the most units):

$((200 - MEM)/200) \times (2.0 \times MEM) = \text{UNITS}$ or $((400 - MEM)/400) \times (1.6 \times MEM) = \text{UNITS}$

SCHOOL NAME	CODE	GRADES	MEM	UNITS
				0.000
				0.000
				0.000
				0.000
				0.000
				0.000
				<u>0.000</u>
TOTAL SENIOR HIGH SCHOOL UNITS				0.000

3. RURAL ISOLATION

Based on district MEM (Basic 1-12, Special Education C and D, Non-Profit and Operational Fund Childhood FTE), a district is eligible for units if it has a MEM greater than 10,000 with a ratio of MEM to senior high schools less than 4,000:1

$(4,000 - (MEM / \text{Eligible Senior High Schools})) \times 0.5 = \text{UNITS}$

Enter the number of approved senior high schools (exclude alternative schools):

Enter the number of approved senior high schools not eligible for senior high size units

0.000

4. NEW DISTRICT ADJUSTMENT

If district is eligible, enter YES in the appropriate box

a. NEWLY CREATED SCHOOL DISTRICT

$(MEM \text{ for current year}) \times .147 = \text{UNITS}$

UNITS

0.000

b. DISTRICT WHOSE MEMBERSHIP DECREASES AS A RESULT OF A NEWLY CREATED DISTRICT

$(MEM \text{ for prior year} - MEM \text{ for current year}) \times .17 = \text{UNITS}$

0.000

**STATE EQUALIZATION GUARANTEE REVENUE ESTIMATE WORKSHEET
BASED ON MEMBERSHIP PROJECTIONS**

Charter School Name **Alb. Sign Language Academy** Charter School Number **2011-2012**

	3Y DD	4Y DD	C & C-GIFTED	D & D-GIFTED	*BASIC	GRADE TOTAL
Kindergarten Program						
ECE/KN	2.00	2.00	4.00	8.00		16.00
NEW FDK - FDK			3.00	4.00	1.00	8.00
Basic Program						
Grade 1			2.00	5.00	1.00	8.00
Grade 2			2.00	5.00	1.00	8.00
Grade 3			2.00	5.00	1.00	8.00
Grade 4			2.00	5.00	1.00	8.00
Grade 5			2.00	5.00	1.00	8.00
Grade 6						0.00
Grade 7						0.00
Grade 8						0.00
Grade 9						0.00
Grade 10						0.00
Grade 11						0.00
Grade 12						0.00
Totals	2.00	2.00	17.00	37.00	6.00	

*INCLUDE STUDENTS RECEIVING A/B SERVICES

ECE FTE	16.00
TOTAL GRADES 1-12	40.00
SUBTOTAL MEM	56.00
TOTAL MEM	56.00

Is this a Charter School?	y
Is this for the 40th Day?	N

	ECE FTE	COST INDEX	PROGRAM UNITS		
Kindergarten					
ECE, FDK-New, and FDK	16.00	1.44	23.040	Kindergarten Units	23.040
Basic Program (Grade Total)					
Grade 01	8.00	1.20	9.600		
Grade 02	8.00	1.18	9.440		
Grade 03	8.00	1.18	9.440		
Grade 04	8.00	1.045	8.360		
Grade 05	8.00	1.045	8.360		
Grade 06	0.00	1.045	0.000		
Grade 07 *	0.00	1.25	0.000		
Grade 08 *	0.00	1.25	0.000		
Grade 09 *	0.00	1.25	0.000		
Grade 10 *	0.00	1.25	0.000		
Grade 11 *	0.00	1.25	0.000		
Grade 12 *	0.00	1.25	0.000		

* Includes Vocational Weighting

Basic Program Units 45.200

	MEM	Factor		
Special Education				
C & C-Gifted	17.00	1.00	17.000	
D & D-Gifted	37.00	2.00	74.000	
3 Yr. DD	2.00	2.00	4.000	
4 Yr. DD	2.00	2.00	4.000	
A/B MEM (Reg/Gifted)	3.00	0.70	2.100	Special Ed. Unit: 101.100
Adjusted Ancillary FTE	4.00	25.00		Ancillary FTE Units 100.000
				Total Special Education Units 201.100

	MEM	Factor		
Elementary Fine Arts Program				
	56.00	0.0500		Fine Arts Program Units 2.800

	HOURS	MEM	FTE	Factor		
Bilingual Program						
1			0.00			
2			0.00			
3		56.00	28.00			
Total Bilingual		56.00	28.00	0.500		Bilingual Units 14.000

(May not total more than the no. of students in grades K-12.)

Elementary P.E. Program

**STATE EQUALIZATION GUARANTEE REVENUE ESTIMATE WORKSHEET
BASED ON MEMBERSHIP PROJECTIONS**

List each school with a projected MEM (Basic 1-9 and Operational Fund Early Childhood FTE EXCLUDING SPECIAL ED.) of less than 200
 $((200 - MEM)/200) \times (1.0 \times MEM) = \text{UNITS}$

SCHOOL NAME	CODE	GRADES	MEM	UNITS
			3.00	2.955
				0.000
				0.000
				0.000
				0.000
				0.000
				<u>0.000</u>
TOTAL ELEMENTARY/MIDDLE SCHOOL/JUNIOR HIGH UNITS				2.955

2. SENIOR HIGH SCHOOL

List each school with a projected MEM (Basic 7-12 EXCLUDING SP. ED.) of less than 400 (program units will be computed using the formula which yields the most units):

$((200 - MEM)/200) \times (2.0 \times MEM) = \text{UNITS}$ or $((400 - MEM)/400) \times (1.6 \times MEM) = \text{UNITS}$

SCHOOL NAME	CODE	GRADES	MEM	UNITS
				0.000
				0.000
				0.000
				0.000
				0.000
				0.000
				<u>0.000</u>
TOTAL SENIOR HIGH SCHOOL UNITS				0.000

3. RURAL ISOLATION

Based on district MEM (Basic 1-12, Special Education C and D, Non-Profit and Operational Fund Childhood FTE), a district is eligible for units if it has a MEM greater than 10,000 with a ratio of MEM to senior high schools less than 4,000:1

$(4,000 - (MEM / \text{Eligible Senior High Schools})) \times 0.5 = \text{UNITS}$

Enter the number of approved senior high schools (exclude alternative schools):

Enter the number of approved senior high schools not eligible for senior high size units

0.000

4. NEW DISTRICT ADJUSTMENT

If district is eligible, enter YES in the appropriate box

a. NEWLY CREATED SCHOOL DISTRICT

$(MEM \text{ for current year}) \times .147 = \text{UNITS}$

UNITS

0.000

b. DISTRICT WHOSE MEMBERSHIP DECREASES AS A RESULT OF A NEWLY CREATED DISTRICT

$(MEM \text{ for prior year} - MEM \text{ for current year}) \times .17 = \text{UNITS}$

0.000

**STATE EQUALIZATION GUARANTEE REVENUE ESTIMATE WORKSHEET
BASED ON MEMBERSHIP PROJECTIONS**

Charter School Name **Alb. Sign Language Academy** Charter School Number **2012-2013**

	3Y DD	4Y DD	C & C-GIFTED	D & D-GIFTED	*BASIC	GRADE TOTAL
Kindergarten Program						
ECE/KN	2.00	2.00	4.00	8.00		16.00
NEW FDK - FDK			2.00	5.00	1.00	8.00
Basic Program						
Grade 1			2.00	5.00	1.00	8.00
Grade 2			2.00	5.00	1.00	8.00
Grade 3			2.00	5.00	1.00	8.00
Grade 4			2.00	5.00	1.00	8.00
Grade 5			2.00	5.00	1.00	8.00
Grade 6			2.00	5.00	1.00	8.00
Grade 7						0.00
Grade 8						0.00
Grade 9						0.00
Grade 10						0.00
Grade 11						0.00
Grade 12						0.00
Totals	2.00	2.00	18.00	43.00	7.00	

*INCLUDE STUDENTS RECEIVING A/B SERVICES

ECE FTE	16.00
TOTAL GRADES 1-12	48.00
SUBTOTAL MEM	64.00
TOTAL MEM	64.00

Is this a Charter School?	y
Is this for the 40th Day?	N

	ECE FTE	COST INDEX	PROGRAM UNITS		
Kindergarten					
ECE, FDK-New, and FDK	16.00	1.44	23.040	Kindergarten Units	23.040
Basic Program (Grade Total)					
Grade 01	8.00	1.20	9.600		
Grade 02	8.00	1.18	9.440		
Grade 03	8.00	1.18	9.440		
Grade 04	8.00	1.045	8.360		
Grade 05	8.00	1.045	8.360		
Grade 06	8.00	1.045	8.360		
Grade 07 *	0.00	1.25	0.000		
Grade 08 *	0.00	1.25	0.000		
Grade 09 *	0.00	1.25	0.000		
Grade 10 *	0.00	1.25	0.000		
Grade 11 *	0.00	1.25	0.000		
Grade 12 *	0.00	1.25	0.000		

* Includes Vocational Weighting

Basic Program Units **53.560**

	MEM	Factor		
Special Education				
C & C-Gifted	18.00	1.00	18.000	
D & D-Gifted	43.00	2.00	86.000	
3 Yr. DD	2.00	2.00	4.000	
4 Yr. DD	2.00	2.00	4.000	
A/B MEM (Reg/Gifted)	3.00	0.70	2.100	Special Ed. Unit: 114.100
Adjusted Ancillary FTE	4.00	25.00		Ancillary FTE Units 100.000
				Total Special Education Units 214.100

	MEM	Factor		
Elementary Fine Arts Program				
	64.00	0.0500		Fine Arts Program Units 3.200

	HOURS	MEM	FTE	Factor		
Bilingual Program						
1			0.00			
2			0.00			
3		64.00	32.00			
Total Bilingual		64.00	32.00	0.500		Bilingual Units 16.000

(May not total more than the no. of students in grades K-12.)

Elementary P.E. Program

**STATE EQUALIZATION GUARANTEE REVENUE ESTIMATE WORKSHEET
BASED ON MEMBERSHIP PROJECTIONS**

List each school with a projected MEM (Basic 1-9 and Operational Fund Early Childhood FTE EXCLUDING SPECIAL ED.) of less than 200
 $((200 - MEM)/200) \times (1.0 \times MEM) = \text{UNITS}$

SCHOOL NAME	CODE	GRADES	MEM	UNITS
			4.00	3.920
				0.000
				0.000
				0.000
				0.000
				<u>0.000</u>
TOTAL ELEMENTARY/MIDDLE SCHOOL/JUNIOR HIGH UNITS				3.920

2. SENIOR HIGH SCHOOL

List each school with a projected MEM (Basic 7-12 EXCLUDING SP. ED.) of less than 400 (program units will be computed using the formula which yields the most units):

$((200 - MEM)/200) \times (2.0 \times MEM) = \text{UNITS}$ or $((400 - MEM)/400) \times (1.6 \times MEM) = \text{UNITS}$

SCHOOL NAME	CODE	GRADES	MEM	UNITS
				0.000
				0.000
				0.000
				0.000
				0.000
				<u>0.000</u>
TOTAL SENIOR HIGH SCHOOL UNITS				0.000

3. RURAL ISOLATION

Based on district MEM (Basic 1-12, Special Education C and D, Non-Profit and Operational Fund Childhood FTE), a district is eligible for units if it has a MEM greater than 10,000 with a ratio of MEM to senior high schools less than 4,000:1

$(4,000 - (MEM / \text{Eligible Senior High Schools})) \times 0.5 = \text{UNITS}$

Enter the number of approved senior high schools (exclude alternative schools):

Enter the number of approved senior high schools not eligible for senior high size units

0.000

4. NEW DISTRICT ADJUSTMENT

If district is eligible, enter YES in the appropriate box

a. NEWLY CREATED SCHOOL DISTRICT

$(MEM \text{ for current year}) \times .147 = \text{UNITS}$

UNITS

0.000

b. DISTRICT WHOSE MEMBERSHIP DECREASES AS A RESULT OF A NEWLY CREATED DISTRICT

$(MEM \text{ for prior year} - MEM \text{ for current year}) \times .17 = \text{UNITS}$

0.000

**STATE EQUALIZATION GUARANTEE REVENUE ESTIMATE WORKSHEET
BASED ON MEMBERSHIP PROJECTIONS**

Charter School Name **Alb. Sign Language Academy** Charter School Number **2013-2014**

	3Y DD	4Y DD	C & C-GIFTED	D & D-GIFTED	*BASIC	GRADE TOTAL
Kindergarten Program						
ECE/KN	2.00	2.00	4.00	8.00		16.00
NEW FDK - FDK			2.00	5.00	1.00	8.00
Basic Program						
Grade 1			2.00	5.00	1.00	8.00
Grade 2			2.00	5.00	1.00	8.00
Grade 3			2.00	5.00	1.00	8.00
Grade 4			2.00	5.00	1.00	8.00
Grade 5			2.00	5.00	1.00	8.00
Grade 6			2.00	5.00	1.00	8.00
Grade 7			2.00	5.00	1.00	8.00
Grade 8						0.00
Grade 9						0.00
Grade 10						0.00
Grade 11						0.00
Grade 12						0.00
Totals	2.00	2.00	20.00	48.00	8.00	

*INCLUDE STUDENTS RECEIVING A/B SERVICES

ECE FTE	16.00
TOTAL GRADES 1-12	56.00
SUBTOTAL MEM	72.00
TOTAL MEM	72.00

Is this a Charter School?	y
Is this for the 40th Day?	N

	ECE FTE	COST INDEX	PROGRAM UNITS		
Kindergarten					
ECE, FDK-New, and FDK	16.00	1.44	23.040	Kindergarten Units	23.040
Basic Program (Grade Total)					
Grade 01	8.00	1.20	9.600		
Grade 02	8.00	1.18	9.440		
Grade 03	8.00	1.18	9.440		
Grade 04	8.00	1.045	8.360		
Grade 05	8.00	1.045	8.360		
Grade 06	8.00	1.045	8.360		
Grade 07 *	8.00	1.25	10.000		
Grade 08 *	0.00	1.25	0.000		
Grade 09 *	0.00	1.25	0.000		
Grade 10 *	0.00	1.25	0.000		
Grade 11 *	0.00	1.25	0.000		
Grade 12 *	0.00	1.25	0.000		

* Includes Vocational Weighting

Basic Program Units **63.560**

	MEM	Factor		
Special Education				
C & C-Gifted	20.00	1.00	20.000	
D & D-Gifted	48.00	2.00	96.000	
3 Yr. DD	2.00	2.00	4.000	
4 Yr. DD	2.00	2.00	4.000	
A/B MEM (Reg/Gifted)	4.00	0.70	2.800	Special Ed. Unit: 126.800
Adjusted Ancillary FTE	4.00	25.00		Ancillary FTE Units 100.000
				Total Special Education Units 226.800

	MEM	Factor		
Elementary Fine Arts Program				
	72.00	0.0500		Fine Arts Program Units 3.600

	HOURS	MEM	FTE	Factor		
Bilingual Program						
1			0.00			
2			0.00			
3		72.00	36.00			
Total Bilingual		72.00	36.00	0.500		Bilingual Units 18.000

(May not total more than the no. of students in grades K-12.)

Elementary P.E. Program

**STATE EQUALIZATION GUARANTEE REVENUE ESTIMATE WORKSHEET
BASED ON MEMBERSHIP PROJECTIONS**

	<i>MEM</i>		<i>Factor</i>			
	72.00		0.060		Elementary P.E. Units	4.320
					TOTAL MEMBERSHIP PROGRAM UNITS	339.320
					T & E Index (Oct 2006)	1.250
<u>National Board Certified Teachers</u>					ADJUSTED PROGRAM UNITS	424.150
	<i>FTE:</i>		<i>Factor</i>		National Board Certified Teachers Units:	1.500
	1.00		1.500		District Size Adjustment Units	10.606
<u>Size Adjustment Units</u>					Charter Schools not eligible for District Size	(10.606)
		<i>UNITS</i>			School Size Adjustment Units	3.920
Elementary/Mid/Jr. High		3.920			Rural Isolation Units	0.000
Senior High		0.000			New District Adjustment Units	0.000
District Size		10.606			At Risk Units	4.680
					Growth Units	14.920
<u>At-Risk Units</u>					Charter Schools Student Activities Units (Charters not eligible for CS Student Activities)	0.000
	<i>At-risk index</i>		<i>MEM</i>		Home School Student Activities Units (Charters not eligible for Home School Student Activities)	0.000
2007-2008:	0.065		72.00		TOTAL PROGRAM UNITS	449.170
<u>Charter Schools Student Activities</u>					Save Harmless Units	0.000
(Districts Only)	<i>MEM</i>		<i>Factor</i>		GRAND TOTAL UNITS	449.170
			0.100		x Unit Value \$	3,674.26
<u>Home School Student Activities</u>					PROGRAM COST \$	1,650,367.36
(Districts Only)	<i>MEM</i>		<i>Factor</i>			
			0.100			

GROWTH & SAVE HARMLESS CALCULATION DATA	
2006-07 Actual 40th Day MEM: (Enter the District Mem EXCLUDING Charter Mem)	64.00
2007-08 Projected MEM: (Enter the District Mem EXCLUDING Charter Mem)	72.00
2007-2008 Actual 40th MEM (Enter the District Mem EXCLUDING Charter Mem)	
2007-08 Projected MEM (Growth):	72.00
Save-Harmless Data	
2007-2008 40th Day TOTAL PROGRAM UNITS (Not Grand Total Program Units)	0.000
Growth Data	
2007-08 Operating Budget Calculation Op-Bud takes 06-07 40 Day compared to 07-08 Mem Proj. FTE	14.920
40th Day Calculation Takes Prior Year 40th-Day and compares to Current Year 40th-Day	0.000

<u>Non-categorical Revenue Credits:</u>	
Tax Levy (41110, 41113, 41114)	
Federal Impact Aid (44103)	
Federal Forest Reserve (44204)	
Total Non-Cat Rev Credits	\$0.00
Less: 75% of Non-Categorical Revenue Credits	\$ -
<u>Other Credits/Adjustments:</u>	
Cash Balance Credit	\$ -
Energy Efficiency	
Other Misc Credits	
Total Other Credits	\$ -
Less: Other Credits/Adjustments	\$ -

(\$33,007.35)

STATE EQUALIZATION GUARANTEE	\$1,617,360.02
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SIZE ADJUSTMENT UNITS:

PED 910B-6

**STATE EQUALIZATION GUARANTEE REVENUE ESTIMATE WORKSHEET
BASED ON MEMBERSHIP PROJECTIONS**

List each school with a projected MEM (Basic 1-9 and Operational Fund Early Childhood FTE EXCLUDING SPECIAL ED.) of less than 200
 $((200 - MEM)/200) \times (1.0 \times MEM) = \text{UNITS}$

SCHOOL NAME	CODE	GRADES	MEM	UNITS
			4.00	3.920
				0.000
				0.000
				0.000
				0.000
				<u>0.000</u>
TOTAL ELEMENTARY/MIDDLE SCHOOL/JUNIOR HIGH UNITS				3.920

2. SENIOR HIGH SCHOOL

List each school with a projected MEM (Basic 7-12 EXCLUDING SP. ED.) of less than 400 (program units will be computed using the formula which yields the most units):

$((200 - MEM)/200) \times (2.0 \times MEM) = \text{UNITS}$ or $((400 - MEM)/400) \times (1.6 \times MEM) = \text{UNITS}$

SCHOOL NAME	CODE	GRADES	MEM	UNITS
				0.000
				0.000
				0.000
				0.000
				0.000
				<u>0.000</u>
TOTAL SENIOR HIGH SCHOOL UNITS				0.000

3. RURAL ISOLATION

Based on district MEM (Basic 1-12, Special Education C and D, Non-Profit and Operational Fund Childhood FTE), a district is eligible for units if it has a MEM greater than 10,000 with a ratio of MEM to senior high schools less than 4,000:1

$(4,000 - (MEM / \text{Eligible Senior High Schools})) \times 0.5 = \text{UNITS}$

Enter the number of approved senior high schools (exclude alternative schools):

Enter the number of approved senior high schools not eligible for senior high size units

0.000

4. NEW DISTRICT ADJUSTMENT

If district is eligible, enter YES in the appropriate box

a. NEWLY CREATED SCHOOL DISTRICT

$(MEM \text{ for current year}) \times .147 = \text{UNITS}$

UNITS

0.000

b. DISTRICT WHOSE MEMBERSHIP DECREASES AS A RESULT OF A NEWLY CREATED DISTRICT

$(MEM \text{ for prior year} - MEM \text{ for current year}) \times .17 = \text{UNITS}$

0.000

**STATE EQUALIZATION GUARANTEE REVENUE ESTIMATE WORKSHEET
BASED ON MEMBERSHIP PROJECTIONS**

Charter School Name **Alb. Sign Language Academy** Charter School Number **2014-2015**

	3Y DD	4Y DD	C & C-GIFTED	D & D-GIFTED	*BASIC	GRADE TOTAL
Kindergarten Program						
ECE/KN	2.00	2.00	4.00	8.00		16.00
NEW FDK - FDK			2.00	5.00	1.00	8.00
Basic Program						
Grade 1			2.00	5.00	1.00	8.00
Grade 2			2.00	5.00	1.00	8.00
Grade 3			2.00	5.00	1.00	8.00
Grade 4			2.00	5.00	1.00	8.00
Grade 5			2.00	5.00	1.00	8.00
Grade 6			2.00	5.00	1.00	8.00
Grade 7			2.00	5.00	1.00	8.00
Grade 8			2.00	5.00	1.00	8.00
Grade 9						0.00
Grade 10						0.00
Grade 11						0.00
Grade 12						0.00
Totals	2.00	2.00	22.00	53.00	9.00	

*INCLUDE STUDENTS RECEIVING A/B SERVICES

ECE FTE	16.00
TOTAL GRADES 1-12	64.00
SUBTOTAL MEM	80.00
TOTAL MEM	80.00

Is this a Charter School?	y
Is this for the 40th Day?	N

	ECE FTE	COST INDEX	PROGRAM UNITS		
Kindergarten					
ECE, FDK-New, and FDK	16.00	1.44	23.040	Kindergarten Units	23.040
Basic Program (Grade Total)					
Grade 01	8.00	1.20	9.600		
Grade 02	8.00	1.18	9.440		
Grade 03	8.00	1.18	9.440		
Grade 04	8.00	1.045	8.360		
Grade 05	8.00	1.045	8.360		
Grade 06	8.00	1.045	8.360		
Grade 07 *	8.00	1.25	10.000		
Grade 08 *	8.00	1.25	10.000		
Grade 09 *	0.00	1.25	0.000		
Grade 10 *	0.00	1.25	0.000		
Grade 11 *	0.00	1.25	0.000		
Grade 12 *	0.00	1.25	0.000		

* Includes Vocational Weighting

Basic Program Units **73.560**

	MEM	Factor		
Special Education				
C & C-Gifted	22.00	1.00	22.000	
D & D-Gifted	53.00	2.00	106.000	
3 Yr. DD	2.00	2.00	4.000	
4 Yr. DD	2.00	2.00	4.000	
A/B MEM (Reg/Gifted)	4.00	0.70	2.800	Special Ed. Unit: 138.800
Adjusted Ancillary FTE	4.00	25.00		Ancillary FTE Units 100.000
				Total Special Education Units 238.800

Elementary Fine Arts Program				
MEM	80.00	Factor	0.0500	Fine Arts Program Units 4.000

	HOURS	MEM	FTE	Factor	
Bilingual Program					
1			0.00		
2			0.00		
3		80.00	40.00		
Total Bilingual		80.00	40.00	0.500	Bilingual Units 20.000

(May not total more than the no. of students in grades K-12.)

Elementary P.E. Program

**STATE EQUALIZATION GUARANTEE REVENUE ESTIMATE WORKSHEET
BASED ON MEMBERSHIP PROJECTIONS**

	<i>MEM</i>		<i>Factor</i>			
	80.00		0.060		Elementary P.E. Units	4.800
					TOTAL MEMBERSHIP PROGRAM UNITS	364.200
					T & E Index (Oct 2006)	1.208
<u>National Board Certified Teachers</u>					ADJUSTED PROGRAM UNITS	439.954
	<i>FTE:</i>		<i>Factor</i>		National Board Certified Teachers Units:	1.500
	1.00		1.500		District Size Adjustment Units	11.760
<u>Size Adjustment Units</u>					Charter Schools not eligible for District Size	(11.760)
		<i>UNITS</i>			School Size Adjustment Units	4.875
Elementary/Mid/Jr. High		4.875			Rural Isolation Units	0.000
Senior High		0.000			New District Adjustment Units	0.000
District Size		11.760			At Risk Units	5.200
<u>At-Risk Units</u>					Growth Units	14.800
	<i>At-risk index</i>		<i>MEM</i>		Charter Schools Student Activities Units (Charters not eligible for CS Student Activities)	0.000
2007-2008:	0.065		80.00		Home School Student Activities Units (Charters not eligible for Home School Student Activities)	0.000
<u>Charter Schools Student Activities</u>					TOTAL PROGRAM UNITS	466.329
(Districts Only)	<i>MEM</i>		<i>Factor</i>		Save Harmless Units	0.000
			0.100			
<u>Home School Student Activities</u>					GRAND TOTAL UNITS	466.329
(Districts Only)	<i>MEM</i>		<i>Factor</i>		x Unit Value	\$ 3,674.26
			0.100		PROGRAM COST	\$ 1,713,413.99

GROWTH & SAVE HARMLESS CALCULATION DATA	
2006-07 Actual 40th Day MEM: (Enter the District Mem EXCLUDING Charter Mem)	72.00
2007-08 Projected MEM: (Enter the District Mem EXCLUDING Charter Mem)	80.00
2007-2008 Actual 40th MEM (Enter the District Mem EXCLUDING Charter Mem)	
2007-08 Projected MEM (Growth):	80.00
Save-Harmless Data	
2007-2008 40th Day TOTAL PROGRAM UNITS (Not Grand Total Program Units)	0.000
Growth Data	
2007-08 Operating Budget Calculation	14.800
Op-Bud takes 06-07 40 Day compared to 07-08 Mem Proj. FTE	
40th Day Calculation	0.000
Takes Prior Year 40th-Day and compares to Current Year 40th-Day	

<u>Non-categorical Revenue Credits:</u>	
Tax Levy (41110, 41113, 41114)	
Federal Impact Aid (44103)	
Federal Forest Reserve (44204)	
Total Non-Cat Rev Credits	\$0.00
Less: 75% of Non-Categorical Revenue Credits	\$ -
<u>Other Credits/Adjustments:</u>	
Cash Balance Credit	\$ -
Energy Efficiency	
Other Misc Credits	
Total Other Credits	\$ -
Less: Other Credits/Adjustments	\$ -

(\$34,268.28)

STATE EQUALIZATION GUARANTEE	\$1,679,145.71
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SIZE ADJUSTMENT UNITS:

PED 910B-6

**STATE EQUALIZATION GUARANTEE REVENUE ESTIMATE WORKSHEET
BASED ON MEMBERSHIP PROJECTIONS**

List each school with a projected MEM (Basic 1-9 and Operational Fund Early Childhood FTE EXCLUDING SPECIAL ED.) of less than 200
 $((200 - MEM)/200) \times (1.0 \times MEM) = \text{UNITS}$

SCHOOL NAME	CODE	GRADES	MEM	UNITS
			5.00	4.875
				0.000
				0.000
				0.000
				0.000
				<u>0.000</u>
TOTAL ELEMENTARY/MIDDLE SCHOOL/JUNIOR HIGH UNITS				4.875

2. SENIOR HIGH SCHOOL

List each school with a projected MEM (Basic 7-12 EXCLUDING SP. ED.) of less than 400 (program units will be computed using the formula which yields the most units):

$((200 - MEM)/200) \times (2.0 \times MEM) = \text{UNITS}$ or $((400 - MEM)/400) \times (1.6 \times MEM) = \text{UNITS}$

SCHOOL NAME	CODE	GRADES	MEM	UNITS
				0.000
				0.000
				0.000
				0.000
				0.000
				<u>0.000</u>
TOTAL SENIOR HIGH SCHOOL UNITS				0.000

3. RURAL ISOLATION

Based on district MEM (Basic 1-12, Special Education C and D, Non-Profit and Operational Fund Childhood FTE), a district is eligible for units if it has a MEM greater than 10,000 with a ratio of MEM to senior high schools less than 4,000:1

$(4,000 - (MEM / \text{Eligible Senior High Schools})) \times 0.5 = \text{UNITS}$

Enter the number of approved senior high schools (exclude alternative schools):

Enter the number of approved senior high schools not eligible for senior high size units

0.000

4. NEW DISTRICT ADJUSTMENT

If district is eligible, enter YES in the appropriate box

a. NEWLY CREATED SCHOOL DISTRICT

$(MEM \text{ for current year}) \times .147 = \text{UNITS}$

UNITS

0.000

b. DISTRICT WHOSE MEMBERSHIP DECREASES AS A RESULT OF A NEWLY CREATED DISTRICT

$(MEM \text{ for prior year} - MEM \text{ for current year}) \times .17 = \text{UNITS}$

0.000

Charter's Five Year Budget Plan

School Name: *Albuquerque Sign Language Academy*

Date: *6/30/2009*

FUND	FUNCTION	OBJECT	JOB CLASS	OBJECT DESCRIPTION	PROJ. AMT (YEAR 1)	FTE	PROJ. AMT (YEAR 2)	FTE	PROJ. AMT (YEAR 3)	FTE	PROJ. AMT (YEAR 4)	FTE	PROJ. AMT (YEAR 5)	FTE
11000 EXPENDITURES														
Function-1000 - Instruction														
Personnel Services - Compensation														
11000	1000	51100	1411	Salaries Expense: Teachers Grades 1-12										
11000	1000	51100	1412	Salaries Expense: Teachers Special Education	\$220,000.00	4.00	\$220,000.00	4.00	\$275,000.00	5.00	\$330,000.00	6.00	\$385,000.00	7.00
11000	1000	51100	1413	Salaries Expense: Teachers Early Childhood Ed.			\$55,000.00	1.00	\$55,000.00	1.00	\$55,000.00	1.00	\$55,000.00	1.00
11000	1000	51100	1414	Salaries Expense: Teachers Preschool (Excludes Special Ed.)										
11000	1000	51100	1415	Salaries Expense: Teachers Vocational and Technical										
11000	1000	51100	1416	Salaries Expense: Teachers Other Instruction										
11000	1000	51100	1611	Salaries Expense: Substitutes Sick Leave	\$1,000.00		\$2,000.00		\$3,000.00		\$3,000.00		\$4,000.00	
11000	1000	51100	1612	Salaries Expense: Substitutes Other Leave	\$1,000.00		\$2,000.00		\$3,000.00		\$3,000.00		\$4,000.00	
11000	1000	51100	1613	Salaries Expense: Separation Pay										
11000	1000	51100	1618	Salaries Expense: Athletics										
11000	1000	51100	1621	Salaries Expense: Summer School/After School										
11000	1000	51100	1624	Salaries Expense: Activities Salaries										
11000	1000	51100	1711	Salaries Expense: Instructional Assistants Grades 1-12										
11000	1000	51100	1712	Salaries Expense: Instructional Assistants Special Ed.	\$51,000.00	3.00	\$68,000.00	4.00	\$85,000.00	5.00	\$102,000.00	6.00	\$119,000.00	7.00
11000	1000	51100	1713	Salaries Expense: Instructional Assistants ECE										
11000	1000	51100	1714	Salaries Expense: Inst Asst. Preschool (Excludes Spec. Ed.)										
Total: Personnel Services Compensation					\$273,000.00	7.00	\$347,000.00	9.00	\$421,000.00	11.00	\$493,000.00	13.00	\$567,000.00	15.00
Personnel Services - Employee Benefits														
11000	1000	52111	0000	Educational Retirement	\$31,804.50		\$43,028.00		\$55,361.50		\$68,527.00		\$78,813.00	
11000	1000	52112	0000	ERA - Retiree Health	\$3,549.00		\$4,511.00		\$5,473.00		\$6,409.00		\$7,371.00	
11000	1000	52210	0000	FICA Payments	\$16,926.00		\$21,514.00		\$26,102.00		\$30,566.00		\$35,154.00	
11000	1000	52220	0000	Medicare Payments	\$3,958.50		\$5,031.50		\$6,104.50		\$7,148.50		\$8,221.50	
11000	1000	52311	0000	Health and Medical Premiums	\$29,400.00		\$37,800.00		\$46,200.00		\$54,600.00		\$63,000.00	
11000	1000	52312	0000	Life	\$252.00		\$324.00		\$396.00		\$468.00		\$540.00	
11000	1000	52313	0000	Dental	\$1,705.20		\$2,192.40		\$2,679.60		\$3,166.80		\$3,654.00	
11000	1000	52314	0000	Vision	\$529.20		\$680.40		\$831.60		\$982.80		\$1,134.00	
11000	1000	52315	0000	Disability										
11000	1000	52316	0000	Other Insurance										
11000	1000	52500	0000	Unemployment Compensation										
11000	1000	52710	0000	Workers Compensation Premium										
11000	1000	52720	0000	Workers Compensation Employer's Fee										
11000	1000	52730	0000	Workers Compensation (Self Insured)										
11000	1000	52911	0000	Cafeteria Plan Fees										
11000	1000	52912	0000	Employee Assistance Programs										
11000	1000	52913	0000	Workers Compensation Employee Fees										
11000	1000	52914	0000	Deferred Sick Leave Reserve										
Total: Personnel Services Employee Benefits					\$88,124.40		\$115,081.30		\$143,148.20		\$171,868.10		\$197,887.50	
Purchased Professional and Technical Services														
11000	1000	53414	0000	Other Professional Services										
11000	1000	53711	0000	Other Charges										
Total: Purchased Professional and Tech Services					\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
Other Purchased Services														
11000	1000	55813	0000	Employee Travel - Non-Teachers										
11000	1000	55814	0000	Employee Training - Non-Teachers										
11000	1000	55817	0000	Student Travel										
11000	1000	55818	0000	Other Travel - Non-Employees										
11000	1000	55819	0000	Employee Travel - Teachers										
11000	1000	55820	0000	Employee Training - Teachers	\$1,000.00		\$10,000.00		\$10,000.00		\$10,000.00		\$10,000.00	
11000	1000	55914	0000	Contracts - Interagency										
11000	1000	55915	0000	Other Contract Services										
Total: Other Purchased Services					\$1,000.00		\$10,000.00		\$10,000.00		\$10,000.00		\$10,000.00	
Supplies														
11000	1000	56112	0000	Other Textbooks										
11000	1000	56113	0000	Software										
11000	1000	56118	0000	General Supplies and Materials	\$3,000.00		\$16,000.00		\$17,000.00		\$18,000.00		\$19,000.00	
Total: Supplies					\$3,000.00		\$16,000.00		\$17,000.00		\$18,000.00		\$19,000.00	

Charter's Five Year Budget Plan

School Name:

Albuquerque Sign Language Academy

Date: 6/30/2009

FUND	FUNCTION	OBJECT	JOB CLASS	OBJECT DESCRIPTION	PROJ. AMT (YEAR 1)	FTE	PROJ. AMT (YEAR 2)	FTE	PROJ. AMT (YEAR 3)	FTE	PROJ. AMT (YEAR 4)	FTE	PROJ. AMT (YEAR 5)	FTE
11000 EXPENDITURES														
		Property												
11000	1000	57331	0000	Fixed Assets (more than \$5,000)										
11000	1000	57332	0000	Supply Assets (\$5,000 or less)										
				Total: Property	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	1000	TOTAL: INSTRUCTION			\$365,124.40	7.00	\$488,081.30	9.00	\$591,148.20	11.00	\$692,868.10	13.00	\$793,887.50	15.00
		Function-2100 - Support Services - Students												
		Personnel Services - Compensation												
11000	2100	51100	1211	Salaries Expense: Coordinator/Subject Matter Specialist										
11000	2100	51100	1214	Salaries Expense: Guidance Counselors/Social Workers										
11000	2100	51100	1215	Salaries Expense: Registered Nurse	\$50,000.00	1.00	\$50,000.00	1.00	\$50,000.00	1.00	\$50,000.00	1.00	\$50,000.00	1.00
11000	2100	51100	1216	Salaries Expense: Health Assistants										
11000	2100	51100	1217	Salaries Expense: Secretary, Clerical, Technical Assistants	\$32,000.00	1.00	\$32,000.00	1.00	\$32,000.00	1.00	\$32,000.00	1.00	\$32,000.00	1.00
11000	2100	51100	1218	Salaries Expense: School/Student Support										
11000	2100	51100	1311	Salaries Expense: Diagnostician										
11000	2100	51100	1312	Salaries Expense: Speech Therapist	\$55,000.00	1.00	\$55,000.00	1.00	\$55,000.00	1.00	\$55,000.00	1.00	\$55,000.00	1.00
11000	2100	51100	1313	Salaries Expense: Occupational Therapist	\$55,000.00	1.00	\$55,000.00	1.00	\$55,000.00	1.00	\$55,000.00	1.00	\$55,000.00	1.00
11000	2100	51100	1314	Salaries Expense: Physical Therapist/Recreational Therapist										
11000	2100	51100	1315	Salaries Expense: Psychologist Counselors										
11000	2100	51100	1316	Salaries Expense: Audiologists	\$55,000.00	1.00	\$55,000.00	1.00	\$55,000.00	1.00	\$55,000.00	1.00	\$55,000.00	1.00
11000	2100	51100	1317	Salaries Expense: Interpreters			\$55,000.00	1.00	\$55,000.00	1.00	\$55,000.00	1.00	\$55,000.00	1.00
11000	2100	51100	1318	Salaries Expense: Specialists										
11000	2100	51100	1319	Salaries Expense: Special Ed. Assistants										
11000	2100	51100	1511	Salaries Expense: Data Processing										
				Total: Personnel Services - Compensation	\$247,000.00	5.00	\$302,000.00	6.00	\$302,000.00	6.00	\$302,000.00	6.00	\$302,000.00	6.00
		Personnel Services - Employee Benefits												
11000	2100	52111	0000	Educational Retirement	\$28,775.50		\$37,448.00		\$39,713.00		\$41,978.00		\$41,978.00	
11000	2100	52112	0000	ERA - Retiree Health	\$3,211.00		\$3,926.00		\$3,926.00		\$3,926.00		\$3,926.00	
11000	2100	52210	0000	FICA Payments	\$15,314.00		\$18,724.00		\$18,724.00		\$18,724.00		\$18,724.00	
11000	2100	52220	0000	Medicare Payments	\$3,581.50		\$4,379.00		\$4,379.00		\$4,379.00		\$4,379.00	
11000	2100	52311	0000	Health and Medical Premiums	\$21,000.00		\$25,200.00		\$25,200.00		\$25,200.00		\$25,200.00	
11000	2100	52312	0000	Life	\$180.00		\$216.00		\$216.00		\$216.00		\$216.00	
11000	2100	52313	0000	Dental	\$1,218.00		\$1,461.60		\$1,461.60		\$1,461.60		\$1,461.60	
11000	2100	52314	0000	Vision	\$378.00		\$453.60		\$453.60		\$453.60		\$453.60	
11000	2100	52315	0000	Disability										
11000	2100	52316	0000	Other Insurance										
11000	2100	52500	0000	Unemployment Compensation										
11000	2100	52710	0000	Workers Compensation Premium										
11000	2100	52720	0000	Workers Compensation Employer's Fee										
11000	2100	52730	0000	Workers Compensation (Self Insured)										
11000	2100	52911	0000	Cafeteria Plan Fees										
11000	2100	52912	0000	Employee Assistance Programs										
11000	2100	52913	0000	Workers Compensation Employee Fees										
11000	2100	52914	0000	Deferred Sick Leave Reserve										
				Total: Personnel Services - Employee Benefits	\$73,658.00		\$91,808.20		\$94,073.20		\$96,338.20		\$96,338.20	
		Purchased Professional and Technical Services												
11000	2100	53211	0000	Diagnosticians - Contracted	\$13,750.00		\$13,750.00		\$13,750.00		\$13,750.00		\$13,750.00	
11000	2100	53212	0000	Speech Therapists - Contracted										
11000	2100	53213	0000	Occupational Therapists - Contracted										
11000	2100	53214	0000	Physical/Recreational Therapists - Contracted	\$13,750.00		\$13,750.00		\$13,750.00		\$13,750.00		\$13,750.00	
11000	2100	53215	0000	Psychologists/Counselors - Contracted										
11000	2100	53215	0000	Psychologists/Counselors - Contracted										
11000	2100	53216	0000	Audiologists - Contracted										
11000	2100	53217	0000	Interpreters - Contracted	\$10,000.00									
11000	2100	53218	0000	Specialists - Contracted	\$16,500.00		\$20,625.00		\$24,750.00		\$28,875.00		\$33,000.00	
11000	2100	53219	0000	Special Ed Assistants (Non-Instructional) - Contracted										
11000	2100	53414	0000	Other Professional Services	\$20,000.00		\$20,000.00		\$20,000.00		\$20,000.00		\$20,000.00	
				Total: Purchased Professional and Tech Services	\$74,000.00		\$68,125.00		\$72,250.00		\$76,375.00		\$80,500.00	

Charter's Five Year Budget Plan

School Name: *Albuquerque Sign Language Academy*

Date: *6/30/2009*

FUND	FUNCTION	OBJECT	JOB CLASS	OBJECT DESCRIPTION	PROJ. AMT (YEAR 1)	FTE	PROJ. AMT (YEAR 2)	FTE	PROJ. AMT (YEAR 3)	FTE	PROJ. AMT (YEAR 4)	FTE	PROJ. AMT (YEAR 5)	FTE
11000	EXPENDITURES													
		Purchased Professional and Technical Services												
11000	2100	53414	0000	Other Professional Services										
11000	2100	53711	0000	Other Charges										
		Total: Support Services - Students			\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
		Other Purchased Services												
11000	2100	55200	0000	Property/Liability Insurance										
11000	2100	55813	0000	Employee Travel - Non-Teachers										
11000	2100	55814	0000	Employee Training - Non-Teachers										
11000	2100	55818	0000	Other Travel - Non-Employees										
11000	2100	55914	0000	Contracts - Interagency										
11000	2100	55915	0000	Other Contract Services										
		Total: Other Purchased Services			\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
		Supplies												
11000	2100	56113	0000	Software										
11000	2100	56118	0000	General Supplies and Materials										
		Total: Supplies			\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
		Property												
11000	2100	57331	0000	Fixed Assets (more than \$5,000)										
11000	2100	57332	0000	Supply Assets (\$5,000 or less)										
		Total: Property			\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2100	TOTAL: SUPPORT SERVICES - STUDENTS			\$394,658.00	5.00	\$461,933.20	6.00	\$468,323.20	6.00	\$474,713.20	6.00	\$478,838.20	6.00
		Function:2200 - Support Services - Instruction												
		Personnel Services - Compensation												
11000	2200	51100	1211	Salaries Expense: Coordinator/Subject Matter Specialist										
11000	2200	51100	1212	Salaries Expense: Library/Media Specialist										
11000	2200	51100	1213	Salaries Expense: Library/Media Assistants										
11000	2200	51100	1217	Salaries Expense: Secretary, Clerical, Technical Assistants										
11000	2200	51100	1511	Salaries Expense: Data Processing										
		Total: Support Services - Instruction			\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00
		Personnel Services - Employee Benefits												
11000	2200	52111	0000	Educational Retirement	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2200	52112	0000	ERA - Retiree Health	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2200	52210	0000	FICA Payments	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2200	52220	0000	Medicare Payments	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2200	52311	0000	Health and Medical Premiums	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2200	52312	0000	Life	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2200	52313	0000	Dental	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2200	52314	0000	Vision	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2200	52315	0000	Disability										
11000	2200	52316	0000	Other Insurance										
11000	2200	52500	0000	Unemployment Compensation										
11000	2200	52710	0000	Workers Compensation Premium										
11000	2200	52720	0000	Workers Compensation Employer's Fee										
11000	2200	52730	0000	Workers Compensation (Self Insured)										
11000	2200	52911	0000	Cafeteria Plan Fees										
11000	2200	52912	0000	Employee Assistance Programs										
11000	2200	52913	0000	Workers Compensation Employee Fees										
11000	2200	52914	0000	Deferred Sick Leave Reserve										
		Total: Personnel Services - Employee Benefits			\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
		Purchased Professional and Technical Services												
11000	2200	53414	0000	Other Professional Services										
11000	2200	53711	0000	Other Charges										
		Total: Purchased Professional and Tech Services			\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	

Charter's Five Year Budget Plan

School Name:

Albuquerque Sign Language Academy

Date: 6/30/2009

FUND	FUNCTION	OBJECT	JOB CLASS	OBJECT DESCRIPTION	PROJ. AMT (YEAR 1)	FTE	PROJ. AMT (YEAR 2)	FTE	PROJ. AMT (YEAR 3)	FTE	PROJ. AMT (YEAR 4)	FTE	PROJ. AMT (YEAR 5)	FTE
11000 EXPENDITURES														
Other Purchased Services														
11000	2200	55813	0000	Employee Travel - Non-Teachers										
11000	2200	55814	0000	Employee Training - Non-Teachers										
11000	2200	55818	0000	Other Travel - Non-Employees										
11000	2200	55914	0000	Contracts - Interagency										
11000	2200	55915	0000	Other Contract Services										
Total: Other Purchased Services					\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
Supplies														
11000	2200	56113	0000	Software										
11000	2200	56114	0000	Library And Audio-Visual										
11000	2200	56118	0000	General Supplies and Materials										
Total: Supplies					\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
Property														
11000	2200	57331	0000	Fixed Assets (more than \$5,000)										
11000	2200	57332	0000	Supply Assets (\$5,000 or less)										
Total: Property					\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2200	TOTAL: SUPPORT SERVICES - INSTRUCTION			\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00
Function-2300 - General Administration														
Personnel Services - Compensation														
11000	2300	51100	1113	Salaries Expense: Administrative Associates	\$62,000.00	1.00	\$62,000.00	1.00	\$62,000.00	1.00	\$62,000.00	1.00	\$62,000.00	1.00
11000	2300	51100	1114	Salaries Expense: Administrative Assistants										
11000	2300	51100	1217	Salaries Expense: Secretary, Clerical, Technical Assistants										
11000	2300	51100	1511	Salaries Expense: Data Processing										
Total: Personnel Services - Compensation					\$62,000.00	1.00	\$62,000.00	1.00	\$62,000.00	1.00	\$62,000.00	1.00	\$62,000.00	1.00
Personnel Services - Employee Benefits														
11000	2300	52111	0000	Educational Retirement	\$7,223.00		\$7,688.00		\$8,153.00		\$8,618.00		\$8,618.00	
11000	2300	52112	0000	ERA - Retiree Health	\$806.00		\$806.00		\$806.00		\$806.00		\$806.00	
11000	2300	52210	0000	FICA Payments	\$3,844.00		\$3,844.00		\$3,844.00		\$3,844.00		\$3,844.00	
11000	2300	52220	0000	Medicare Payments	\$899.00		\$899.00		\$899.00		\$899.00		\$899.00	
11000	2300	52311	0000	Health and Medical Premiums	\$4,200.00		\$4,200.00		\$4,200.00		\$4,200.00		\$4,200.00	
11000	2300	52312	0000	Life	\$36.00		\$36.00		\$36.00		\$36.00		\$36.00	
11000	2300	52313	0000	Dental	\$243.60		\$243.60		\$243.60		\$243.60		\$243.60	
11000	2300	52314	0000	Vision	\$75.60		\$75.60		\$75.60		\$75.60		\$75.60	
11000	2300	52315	0000	Disability										
11000	2300	52316	0000	Other Insurance										
11000	2300	52500	0000	Unemployment Compensation										
11000	2300	52710	0000	Workers Compensation Premium										
11000	2300	52720	0000	Workers Compensation Employer's Fee										
11000	2300	52730	0000	Workers Compensation (Self Insured)										
11000	2300	52911	0000	Cafeteria Plan Fees										
11000	2300	52912	0000	Employee Assistance Programs										
11000	2300	52913	0000	Workers Compensation Employee Fees										
11000	2300	52914	0000	Deferred Sick Leave Reserve										
Total: Personnel Services - Employee Benefits					\$17,327.20		\$17,792.20		\$18,257.20		\$18,722.20		\$18,722.20	
Purchased Professional and Technical Services														
11000	2300	53411	0000	Auditing	\$5,000.00		\$5,000.00		\$5,000.00		\$5,000.00		\$5,000.00	
11000	2300	53412	0000	Bond/Board Elections										
11000	2300	53413	0000	Legal	\$5,000.00		\$5,000.00		\$5,000.00		\$5,000.00		\$5,000.00	
11000	2300	53414	0000	Other Professional Services										
11000	2300	53711	0000	Other Charges										
Total: Purchased Professional and Tech Services					\$10,000.00		\$10,000.00		\$10,000.00		\$10,000.00		\$10,000.00	
Other Purchased Services														
11000	2300	55400	0000	Advertising										
11000	2300	55811	0000	Board Travel										

Charter's Five Year Budget Plan

School Name:

Albuquerque Sign Language Academy

Date: 6/30/2009

FUND	FUNCTION	OBJECT	JOB CLASS	OBJECT DESCRIPTION	PROJ. AMT (YEAR 1)	FTE	PROJ. AMT (YEAR 2)	FTE	PROJ. AMT (YEAR 3)	FTE	PROJ. AMT (YEAR 4)	FTE	PROJ. AMT (YEAR 5)	FTE
11000	EXPENDITURES													
11000	2300	55812	0000	Board Training										
11000	2300	55813	0000	Employee Travel - Non-Teachers										
11000	2300	55814	0000	Employee Training - Non-Teachers										
11000	2300	55818	0000	Other Travel - Non-Employees										
11000	2300	55914	0000	Contracts - Interagency										
11000	2300	55915	0000	Other Contract Services										
				Total: Other Purchased Services	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
		Supplies												
11000	2300	56113	0000	Software										
11000	2300	56115	0000	Board Expenses										
11000	2300	56118	0000	General Supplies and Materials										
				Total: Supplies	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
		Property												
11000	2300	57331	0000	Fixed Assets (more than \$5,000)										
11000	2300	57332	0000	Supply Assets (\$5,000 or less)										
				Total: Property	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2300			TOTAL: GENERAL ADMINISTRATION	\$89,327.20	1.00	\$89,792.20	1.00	\$90,257.20	1.00	\$90,722.20	1.00	\$90,722.20	1.00
		Function-2400 - School Administration												
		Personnel Services - Compensation												
11000	2400	51100	1112	Salaries Expense: Principal	\$62,000.00	1.00	\$62,000.00	1.00	\$62,000.00	1.00	\$62,000.00	1.00	\$62,000.00	1.00
11000	2400	51100	1211	Salaries Expense: Coordinator/Subject Matter Specialist										
11000	2400	51100	1217	Salaries Expense: Secretary, Clerical, Technical Assistants										
11000	2400	51100	1511	Salaries Expense: Data Processing										
				Total: Personnel Services - Compensation	\$62,000.00	1.00	\$62,000.00	1.00	\$62,000.00	1.00	\$62,000.00	1.00	\$62,000.00	1.00
		Personnel Services - Employee Benefits												
11000	2400	52111	0000	Educational Retirement	\$7,223.00		\$7,688.00		\$8,153.00		\$8,618.00		\$8,618.00	
11000	2400	52112	0000	ERA - Retiree Health	\$806.00		\$806.00		\$806.00		\$806.00		\$806.00	
11000	2400	52210	0000	FICA Payments	\$3,844.00		\$3,844.00		\$3,844.00		\$3,844.00		\$3,844.00	
11000	2400	52220	0000	Medicare Payments	\$899.00		\$899.00		\$899.00		\$899.00		\$899.00	
11000	2400	52311	0000	Health and Medical Premiums	\$4,200.00		\$4,200.00		\$4,200.00		\$4,200.00		\$4,200.00	
11000	2400	52312	0000	Life	\$36.00		\$36.00		\$36.00		\$36.00		\$36.00	
11000	2400	52313	0000	Dental	\$243.60		\$243.60		\$243.60		\$243.60		\$243.60	
11000	2400	52314	0000	Vision	\$75.60		\$75.60		\$75.60		\$75.60		\$75.60	
11000	2400	52315	0000	Disability										
11000	2400	52316	0000	Other Insurance										
11000	2400	52500	0000	Unemployment Compensation										
11000	2400	52710	0000	Workers Compensation Premium										
11000	2400	52720	0000	Workers Compensation Employer's Fee										
11000	2400	52730	0000	Workers Compensation (Self Insured)										
11000	2400	52911	0000	Cafeteria Plan Fees										
11000	2400	52912	0000	Employee Assistance Programs										
11000	2400	52913	0000	Workers Compensation Employee Fees										
11000	2400	52914	0000	Deferred Sick Leave Reserve										
				Total: Personnel Services - Employee Benefits	\$17,327.20		\$17,792.20		\$18,257.20		\$18,722.20		\$18,722.20	
		Purchased Professional and Technical Services												
11000	2400	53414	0000	Other Professional Services										
11000	2400	53711	0000	Other Charges										
				Total: Purchased Professional and Technical Services	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
		Other Purchased Services												
11000	2400	55813	0000	Employee Travel - Non-Teachers										
11000	2400	55814	0000	Employee Training - Non-Teachers										
11000	2400	55914	0000	Contracts - Interagency										
11000	2400	55915	0000	Other Contract Services										
				Total: Other Purchased Services	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	

Charter's Five Year Budget Plan

School Name: *Albuquerque Sign Language Academy*

Date: *6/30/2009*

FUND	FUNCTION	OBJECT	JOB CLASS	OBJECT DESCRIPTION	PROJ. AMT (YEAR 1)	FTE	PROJ. AMT (YEAR 2)	FTE	PROJ. AMT (YEAR 3)	FTE	PROJ. AMT (YEAR 4)	FTE	PROJ. AMT (YEAR 5)	FTE
11000	EXPENDITURES													
		Supplies												
11000	2400	56113	0000	Software										
11000	2400	56118	0000	General Supplies and Materials										
				Total: Supplies	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
		Property												
11000	2400	57331	0000	Fixed Assets (more than \$5,000)										
11000	2400	57332	0000	Supply Assets (\$5,000 or less)										
				Total: Property	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2400			TOTAL: SCHOOL ADMINISTRATION	\$79,327.20	1.00	\$79,792.20	1.00	\$80,257.20	1.00	\$80,722.20	1.00	\$80,722.20	1.00
		Function-2500 - Central Services												
		Personnel Services - Compensation												
11000	2500	51100	1113	Salaries Expense: Administrative Associates										
11000	2500	51100	1114	Salaries Expense: Administrative Assistants										
11000	2500	51100	1115	Salaries Expense: Assoc. Supt.-Fin./Business Manager										
11000	2500	51100	1217	Salaries Expense: Secretary, Clerical, Technical Assistants										
11000	2500	51100	1220	Salaries Expense: Business Office Support										
11000	2500	51100	1511	Salaries Expense: Data Processing										
				Total: Personnel Services - Compensation	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00
		Personnel Services - Employee Benefits												
11000	2500	52111	0000	Educational Retirement	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2500	52112	0000	ERA - Retiree Health	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2500	52210	0000	FICA Payments	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2500	52220	0000	Medicare Payments	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2500	52311	0000	Health and Medical Premiums	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2500	52312	0000	Life	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2500	52313	0000	Dental	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2500	52314	0000	Vision	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2500	52315	0000	Disability										
11000	2500	52316	0000	Other Insurance										
11000	2500	52500	0000	Unemployment Compensation										
11000	2500	52710	0000	Workers Compensation Premium										
11000	2500	52720	0000	Workers Compensation Employer's Fee										
11000	2500	52730	0000	Workers Compensation (Self Insured)										
11000	2500	52911	0000	Cafeteria Plan Fees										
11000	2500	52912	0000	Employee Assistance Programs										
11000	2500	52913	0000	Workers Compensation Employee Fees										
11000	2500	52914	0000	Deferred Sick Leave Reserve										
				Total: Personnel Services - Employee Benefits	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
		Purchased Professional and Technical Services												
11000	2500	53414	0000	Other Professional Services	\$25,000.00		\$25,000.00		\$25,000.00		\$25,000.00		\$25,000.00	
11000	2500	53711	0000	Other Charges										
				Total: Purchased Professional and Technical Services	\$25,000.00		\$25,000.00		\$25,000.00		\$25,000.00		\$25,000.00	
		Other Purchased Services												
11000	2500	55400	0000	Advertising										
11000	2500	55813	0000	Employee Travel - Non-Teachers										
11000	2500	55814	0000	Employee Training - Non-Teachers										
11000	2500	55914	0000	Contracts - Interagency										
11000	2500	55915	0000	Other Contract Services										
				Total: Other Purchased Services	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
		Supplies												
11000	2500	56113	0000	Software										
11000	2500	56118	0000	General Supplies and Materials										
				Total: Supplies	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	

Charter's Five Year Budget Plan

School Name:

Albuquerque Sign Language Academy

Date: 6/30/2009

FUND	FUNCTION	OBJECT	JOB CLASS	OBJECT DESCRIPTION	PROJ. AMT (YEAR 1)	FTE	PROJ. AMT (YEAR 2)	FTE	PROJ. AMT (YEAR 3)	FTE	PROJ. AMT (YEAR 4)	FTE	PROJ. AMT (YEAR 5)	FTE
11000	EXPENDITURES													
		Property												
11000	2500	57331	0000	Fixed Assets (more than \$5,000)										
11000	2500	57332	0000	Supply Assets (\$5,000 or less)										
				Total: Property	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2500			TOTAL: CENTRAL SERVICES	\$25,000.00	0.00	\$25,000.00	0.00	\$25,000.00	0.00	\$25,000.00	0.00	\$25,000.00	0.00
	Function-2600 - Operation and Maintenance of Plant													
		Personnel Services - Compensation												
11000	2600	51100	1113	Salaries Expense: Administrative Associates										
11000	2600	51100	1114	Salaries Expense: Administrative Assistants										
11000	2600	51100	1217	Salaries Expense: Secretary, Clerical, Technical Assistants										
11000	2600	51100	1219	Salaries Expense: Duty Personnel										
11000	2600	51100	1614	Salaries Expense: Maintenance										
11000	2600	51100	1615	Salaries Expense: Custodial	\$21,000.00	1.00	\$21,000.00	1.00	\$21,000.00	1.00	\$21,000.00	1.00	\$21,000.00	1.00
11000	2600	51100	1623	Salaries Expense: Crosswalk Guards										
				Total: Personnel Services - Compensation	\$21,000.00	1.00	\$21,000.00	1.00	\$21,000.00	1.00	\$21,000.00	1.00	\$21,000.00	1.00
		Personnel Services - Employee Benefits												
11000	2600	52111	0000	Educational Retirement	\$2,446.50		\$2,604.00		\$2,761.50		\$2,919.00		\$2,919.00	
11000	2600	52112	0000	ERA - Retiree Health	\$273.00		\$273.00		\$273.00		\$273.00		\$273.00	
11000	2600	52210	0000	FICA Payments	\$1,302.00		\$1,302.00		\$1,302.00		\$1,302.00		\$1,302.00	
11000	2600	52220	0000	Medicare Payments	\$304.50		\$304.50		\$304.50		\$304.50		\$304.50	
11000	2600	52311	0000	Health and Medical Premiums	\$4,200.00		\$4,200.00		\$4,200.00		\$4,200.00		\$4,200.00	
11000	2600	52312	0000	Life	\$36.00		\$36.00		\$36.00		\$36.00		\$36.00	
11000	2600	52313	0000	Dental	\$243.60		\$243.60		\$243.60		\$243.60		\$243.60	
11000	2600	52314	0000	Vision	\$75.60		\$75.60		\$75.60		\$75.60		\$75.60	
11000	2600	52315	0000	Disability										
11000	2600	52316	0000	Other Insurance										
11000	2600	52500	0000	Unemployment Compensation										
11000	2600	52710	0000	Workers Compensation Premium										
11000	2600	52720	0000	Workers Compensation Employer's Fee										
11000	2600	52730	0000	Workers Compensation (Self Insured)										
11000	2600	52911	0000	Cafeteria Plan Fees										
11000	2600	52912	0000	Employee Assistance Programs										
11000	2600	52913	0000	Workers Compensation Employee Fees										
11000	2600	52914	0000	Deferred Sick Leave Reserve										
				Total: Personnel Services - Employee Benefits	\$8,881.20		\$9,038.70		\$9,196.20		\$9,353.70		\$9,353.70	
	Purchased Professional and Technical Services													
11000	2600	53711	0000	Other Charges										
				Total: Purchased Professional and Tech Services	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
	Purchased Property Services													
11000	2600	54311	0000	Maintenance & Repair - Furniture/Fixtures/Equipment										
11000	2600	54312	0000	Maintenance & Repair - Buildings and Grounds										
11000	2600	54313	0000	Maintenance & Repair - Vehicles										
11000	2600	54411	0000	Electricity	\$5,000.00		\$5,000.00		\$5,000.00		\$5,000.00		\$5,000.00	
11000	2600	54412	0000	Natural Gas (Buildings)	\$5,000.00		\$5,000.00		\$5,000.00		\$5,000.00		\$5,000.00	
11000	2600	54413	0000	Propane/Butane (Buildings)										
11000	2600	54414	0000	Other Energy (Buildings)										
11000	2600	54415	0000	Water/Sewage	\$1,000.00		\$1,500.00		\$2,000.00		\$2,500.00		\$3,000.00	
11000	2600	54416	0000	Communication Services	\$5,000.00		\$5,000.00		\$5,000.00		\$5,000.00		\$5,000.00	
11000	2600	54610	0000	Rental - Land and Buildings										
11000	2600	54620	0000	Rental - Equipment and Vehicles										
11000	2600	54630	0000	Rental - Computers and Related Equipment										
				Total: Purchased Property Services	\$16,000.00		\$16,500.00		\$17,000.00		\$17,500.00		\$18,000.00	
	Other Purchased Services													
11000	2600	55200	0000	Property/Liability Insurance	\$5,000.00		\$5,000.00		\$5,000.00		\$5,000.00		\$5,000.00	
11000	2600	55813	0000	Employee Travel - Non-Teachers										

Charter's Five Year Budget Plan

School Name:

Albuquerque Sign Language Academy

Date: 6/30/2009

FUND	FUNCTION	OBJECT	JOB CLASS	OBJECT DESCRIPTION	PROJ. AMT (YEAR 1)	FTE	PROJ. AMT (YEAR 2)	FTE	PROJ. AMT (YEAR 3)	FTE	PROJ. AMT (YEAR 4)	FTE	PROJ. AMT (YEAR 5)	FTE
11000	EXPENDITURES													
11000	2600	55814	0000	Employee Training - Non-Teachers										
11000	2600	55914	0000	Contracts - Interagency										
11000	2600	55915	0000	Other Contract Services										
				Total: Other Purchased Services	\$5,000.00		\$5,000.00		\$5,000.00		\$5,000.00		\$5,000.00	
		Supplies												
11000	2600	56113	0000	Software										
11000	2600	56118	0000	General Supplies and Materials										
11000	2600	56210	0000	Natural Gas (Vehicles)										
11000	2600	56211	0000	Gasoline										
11000	2600	56212	0000	Diesel Fuel										
11000	2600	56213	0000	Propane (Vehicles)										
11000	2600	56214	0000	Lubricants/Anti-Freeze										
11000	2600	56215	0000	Tires/Tubes										
11000	2600	56216	0000	Maintenance Supplies/Parts										
				Total: Supplies	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
		Property												
11000	2600	57331	0000	Fixed Assets (more than \$5,000)										
11000	2600	57332	0000	Supply Assets (\$5,000 or less)										
				Total: Property	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2600			TOTAL: OPERATION AND MAINTENANCE OF PLANT	\$50,881.20	1.00	\$51,538.70	1.00	\$52,196.20	1.00	\$52,853.70	1.00	\$53,353.70	1.00
	Function:2700 - Student Transportation													
		Personnel Services - Compensation												
11000	2700	51100	1113	Salaries Expense: Administrative Associates										
11000	2700	51100	1114	Salaries Expense: Administrative Assistants										
11000	2700	51100	1217	Salaries Expense: Secretary, Clerical, Technical Assistants										
11000	2700	51100	1319	Salaries Expense: Special Ed. Assistants										
				Total: Personnel Services - Compensation	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00
		Personnel Services - Employee Benefits												
11000	2700	52111	0000	Educational Retirement	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2700	52112	0000	ERA - Retiree Health	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2700	52210	0000	FICA Payments	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2700	52220	0000	Medicare Payments	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2700	52311	0000	Health and Medical Premiums	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2700	52312	0000	Life	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2700	52313	0000	Dental	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2700	52314	0000	Vision	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2700	52315	0000	Disability										
11000	2700	52316	0000	Other Insurance										
11000	2700	52500	0000	Unemployment Compensation										
11000	2700	52710	0000	Workers Compensation Premium										
11000	2700	52720	0000	Workers Compensation Employer's Fee										
11000	2700	52730	0000	Workers Compensation (Self Insured)										
11000	2700	52911	0000	Cafeteria Plan Fees										
11000	2700	52912	0000	Employee Assistance Programs										
11000	2700	52913	0000	Workers Compensation Employee Fees										
11000	2700	52914	0000	Deferred Sick Leave Reserve										
				Total: Personnel Services - Employee Benefits	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
		Purchased Professional and Technical Services												
11000	2700	53711	0000	Other Charges										
				Total: Purchased Professional and Technical Services	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
		Purchased Property Services												
11000	2700	55111	0000	Transportation Per-Capita Feeders										
11000	2700	55112	0000	Transportation Contractors										
				Total: Purchased Property Services	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	2700			TOTAL: STUDENT TRANSPORTATION	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00
11000	2000			TOTAL: SUPPORT SERVICES	\$639,193.60	8.00	\$708,056.30	9.00	\$716,033.80	9.00	\$724,011.30	9.00	\$728,636.30	9.00

Charter's Five Year Budget Plan

School Name:

Albuquerque Sign Language Academy

Date: 6/30/2009

FUND	FUNCTION	OBJECT	JOB CLASS	OBJECT DESCRIPTION	PROJ. AMT (YEAR 1)	FTE	PROJ. AMT (YEAR 2)	FTE	PROJ. AMT (YEAR 3)	FTE	PROJ. AMT (YEAR 4)	FTE	PROJ. AMT (YEAR 5)	FTE
11000	EXPENDITURES													
	Function-3100 - Food Service Operations													
	Personnel Services - Compensation													
11000	3100	51100	1113	Salaries Expense: Administrative Associates										
11000	3100	51100	1114	Salaries Expense: Administrative Assistants										
11000	3100	51100	1217	Salaries Expense: Secretary, Clerical, Technical Assistants										
11000	3100	51100	1617	Salaries Expense: Food Service										
	Total: Personnel Services - Compensation				\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00
	Personnel Services - Employee Benefits													
11000	3100	52111	0000	Educational Retirement	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	3100	52112	0000	ERA - Retiree Health	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	3100	52210	0000	FICA Payments	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	3100	52220	0000	Medicare Payments	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	3100	52311	0000	Health and Medical Premiums	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	3100	52312	0000	Life	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	3100	52313	0000	Dental	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	3100	52314	0000	Vision	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	3100	52315	0000	Disability										
11000	3100	52316	0000	Other Insurance										
11000	3100	52500	0000	Unemployment Compensation										
11000	3100	52710	0000	Workers Compensation Premium										
11000	3100	52720	0000	Workers Compensation Employer's Fee										
11000	3100	52730	0000	Workers Compensation (Self Insured)										
11000	3100	52911	0000	Cafeteria Plan Fees										
11000	3100	52912	0000	Employee Assistance Programs										
11000	3100	52913	0000	Workers Compensation Employee Fees										
11000	3100	52914	0000	Deferred Sick Leave Reserve										
	Total: Personnel Services - Employee Benefits				\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
	Function-3100 - Food Service Operations													
	Purchased Professional and Technical Services													
11000	3100	53411	0000	Auditing										
11000	3100	53413	0000	Legal										
11000	3100	53414	0000	Other Professional Services										
11000	3100	53711	0000	Other Charges										
	Total: Purchased Professional and Tech Services				\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
	Purchased Property Services													
11000	3100	54311	0000	Maintenance & Repair - Furniture/Fixtures/Equipment										
11000	3100	54312	0000	Maintenance & Repair - Buildings and Grounds										
11000	3100	54313	0000	Maintenance & Repair - Vehicles										
11000	3100	54411	0000	Electricity										
11000	3100	54412	0000	Natural Gas (Buildings)										
11000	3100	54413	0000	Propane/Butane (Buildings)										
11000	3100	54414	0000	Other Energy (Buildings)										
11000	3100	54415	0000	Water/Sewage										
11000	3100	54416	0000	Communication Services										
11000	3100	54610	0000	Rental - Land and Buildings										
11000	3100	54620	0000	Rental - Equipment and Vehicles										
11000	3100	54630	0000	Rental - Computers and Related Equipment										
	Total: Purchased Property Services				\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
	Other Purchased Services													
11000	3100	55813	0000	Employee Travel - Non-Teachers										
11000	3100	55814	0000	Employee Training - Non-Teachers										
11000	3100	55914	0000	Contracts - Interagency										
11000	3100	55915	0000	Other Contract Services										
	Total: Other Purchased Services				\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	

Charter's Five Year Budget Plan

School Name: *Albuquerque Sign Language Academy*

Date: *6/30/2009*

FUND	FUNCTION	OBJECT	JOB CLASS	OBJECT DESCRIPTION	PROJ. AMT (YEAR 1)	FTE	PROJ. AMT (YEAR 2)	FTE	PROJ. AMT (YEAR 3)	FTE	PROJ. AMT (YEAR 4)	FTE	PROJ. AMT (YEAR 5)	FTE
11000	EXPENDITURES													
		Supplies												
11000	3100	56113	0000	Software										
11000	3100	56116	0000	Food										
11000	3100	56117	0000	Non-Food										
11000	3100	56118	0000	General Supplies and Materials										
				Total: Supplies	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
		Property												
11000	3100	57331	0000	Fixed Assets (more than \$5,000)										
11000	3100	57332	0000	Supply Assets (\$5,000 or less)										
				Total: Property	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	3100			TOTAL: FOOD SERVICES OPERATIONS	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00	\$0.00	0.00
	Function-3300 - Community Services Operations													
		Personnel Services - Compensation												
11000	3300	51100	1619	Salaries Expense: Adult Education										
11000	3300	51100	1620	Salaries Expense: Recreation										
11000	3300	51100	1621	Salaries Expense: Summer School/After School										
11000	3300	51100	1622	Salaries Expense: Bus Drivers										
11000	3300	51100	1625	Salaries Expense: Extended Services to Students	\$62,000.00	1.00	\$62,000.00	1.00	\$62,000.00	1.00	\$62,000.00	1.00	\$62,000.00	1.00
				Total: Personnel Services - Compensation	\$62,000.00	1.00	\$62,000.00	1.00	\$62,000.00	1.00	\$62,000.00	1.00	\$62,000.00	1.00
		Personnel Services - Employee Benefits												
11000	3300	52111	0000	Educational Retirement	\$7,223.00		\$7,688.00		\$8,153.00		\$8,618.00		\$8,618.00	
11000	3300	52112	0000	ERA - Retiree Health	\$806.00		\$806.00		\$806.00		\$806.00		\$806.00	
11000	3300	52210	0000	FICA Payments	\$3,844.00		\$3,844.00		\$3,844.00		\$3,844.00		\$3,844.00	
11000	3300	52220	0000	Medicare Payments	\$899.00		\$899.00		\$899.00		\$899.00		\$899.00	
11000	3300	52311	0000	Health and Medical Premiums	\$4,200.00		\$4,200.00		\$4,200.00		\$4,200.00		\$4,200.00	
11000	3300	52312	0000	Life	\$36.00		\$36.00		\$36.00		\$36.00		\$36.00	
11000	3300	52313	0000	Dental	\$243.60		\$243.60		\$243.60		\$243.60		\$243.60	
11000	3300	52314	0000	Vision	\$75.60		\$75.60		\$75.60		\$75.60		\$75.60	
11000	3300	52315	0000	Disability										
11000	3300	52316	0000	Other Insurance										
11000	3300	52500	0000	Unemployment Compensation										
11000	3300	52710	0000	Workers Compensation Premium										
11000	3300	52720	0000	Workers Compensation Employer's Fee										
11000	3300	52730	0000	Workers Compensation (Self Insured)										
11000	3300	52911	0000	Cafeteria Plan Fees										
11000	3300	52912	0000	Employee Assistance Programs										
11000	3300	52913	0000	Workers Compensation Employee Fees										
11000	3300	52914	0000	Deferred Sick Leave Reserve										
				Total: Personnel Services - Employee Benefits	\$17,327.20		\$17,792.20		\$18,257.20		\$18,722.20		\$18,722.20	
		Other Purchased Services												
11000	3300	55200	0000	Property/Liability Insurance										
11000	3300	55813	0000	Employee Travel - Non-Teachers										
11000	3300	55814	0000	Employee Training - Non-Teachers										
11000	3300	55817	0000	Student Travel										
11000	3300	55818	0000	Other Travel - Non-Employees										
11000	3300	55914	0000	Contracts - Interagency										
11000	3300	55915	0000	Other Contract Services										
				Total: Other Purchased Services	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
		Supplies												
11000	3300	56118	0000	General Supplies and Materials										
				Total: Supplies	\$0.00		\$0.00		\$0.00		\$0.00		\$0.00	
11000	3300			TOTAL: COMMUNITY SERVICES OPERATIONS	\$79,327.20	1.00	\$79,792.20	1.00	\$80,257.20	1.00	\$80,722.20	1.00	\$80,722.20	1.00
11000	3000			TOTAL: OPERATION OF NON-INSTRUCTIONAL SERVICES	\$79,327.20	1.00	\$79,792.20	1.00	\$80,257.20	1.00	\$80,722.20	1.00	\$80,722.20	1.00
11000				TOTAL: OPERATIONAL FUND	\$1,083,645.20	16.00	\$1,275,929.80	19.00	\$1,387,439.20	21.00	\$1,497,601.60	23.00	\$1,603,246.00	25.00

Charter's Five Year Budget Plan

School Name: Albuquerque Sign Language Academy

Date: 6/30/2009

FUND	FUNCTION	OBJECT	OBJECT DESCRIPTION	PROJ. AMT (YEAR 1)	PROJ. AMT (YEAR 2)	PROJ. AMT (YEAR 3)	PROJ. AMT (YEAR 4)	PROJ. AMT (YEAR 5)
FUND 11000-Operational Revenue								
Revenue From Local Sources								
11000	0000	41701	Fees Activities					
11000	0000	41702	Fees Educational					
11000	0000	41705	Fees Users					
11000	0000	41706	Fees Summer School					
11000	0000	41920	Contributions and Donations From Private Sources					
Revenue From State Sources								
11000	0000	43101	State Equalization Guarantee	\$1,084,787.42	1509531.21	1500784.93	1617360.02	1679145.71
11000		TOTAL: OPERATIONAL		\$1,084,787.42	\$1,509,531.21	\$1,500,784.93	\$1,617,360.02	\$1,679,145.71
FUND 13000-Transportation Revenue								
Revenue From State Sources								
13000	0000	43206	Transportation Distribution					
FUND 14000-Instructional Materials Revenue								
Revenue From State Sources								
14000	0000	43207	Instructional Materials Credit (50%)					
FUND 21000-Food Services Revenue								
Revenue From State Sources								
21000	0000	41603	Fees Adults/Food Services					
21000	0000	41604	Fees Students/Food Services					
21000	0000	41605	Fees Other/Food Services					
Revenue From Federal Sources								
21000	0000	44500	Restricted Grants Federal Flowthrough					
21000		TOTAL: Food Services		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

Charter's Five Year Budget Plan

School Name: Albuquerque Sign Language Academy

Date: 6/30/2009

FUND	FUNCTION	OBJECT	OBJECT DESCRIPTION	PROJ. AMT (YEAR 1)	PROJ. AMT (YEAR 2)	PROJ. AMT (YEAR 3)	PROJ. AMT (YEAR 4)	PROJ. AMT (YEAR 5)
FUND 23000-Non-Instructional Support Revenue								
Revenue From Local Sources								
23000	0000	41701	Fees Activities					
23000	0000	41705	Fees Users					
23000	0000	41920	Contributions and Donations From Private Sources					
23000		TOTAL: Non-Instructional Support		\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
FUND 31xxx-Capital Outlay								
31200	0000	43209	PSCOC Awards					
31400	0000	43210	Special Capital Outlay State	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00
31xxx		TOTAL: Capital Outlay		\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00
FUND 24xxx, 25xxx, 26xxx, 27xxx, 28xxx, 29xxx-Other Federal, State, Local and Private Grants								
(PLEASE COMPLETE THE "OTHER GRANT REVENUE" WORKSHEET FOR ANY REVENUE LISTED BELOW)								
Revenue From Federal Sources								
24xxx	0000	44500	Restricted Grants Federal Flowthrough	\$400,000.00	\$400,000.00	\$400,000.00	\$400,000.00	\$400,000.00
25xxx	0000	44301	Other Restricted Grants-Federal Direct					
Revenue From Local Sources								
26xxx	0000	41921	Instruction-Categorical					
26xxx	0000	41922	Instructional Support-Categorical	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
26xxx	0000	41923	Administration-Categorical					
Revenue From State Sources								
27xxx	0000	43202	State Flowthrough Grants	\$28,000.00	\$39,200.00	\$44,800.00	\$50,400.00	\$56,000.00
28xxx	0000	43203	State Direct Grants	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00	\$100,000.00
Revenue From Local Sources								
29xxx	0000	41921	Instruction-Categorical					
29xxx	0000	41922	Instructional Support-Categorical					
29xxx	0000	41923	Administration-Categorical					
2xxxx		TOTAL: Other Grant Revenue		\$538,000.00	\$549,200.00	\$554,800.00	\$560,400.00	\$566,000.00

Other Grant Revenue

School Name: Albuquerque Sign Language Academy

Date: 6/30/2009

Use this sheet only if you have entered revenue estimates for other federal, state, local or private grants, on the Revenues worksheet. Within each category below, list the fund number, grant name and brief description of the purpose of the grant. Please refer to the PED Uniform Chart of Accounts (UCOA) for grant names and fund numbers.

To Download the UCOA click below:

[Uniform Chart of Accounts \(UCOA\)](#)

24xxx - Federal Flowthrough Grants <i>Example: 24101 - Title I - Resources for high poverty schools</i>
24101 - Title I Federal Grant - Resource to improve the academic achievement of the disadvantaged 24141 - PCSP Start Up Grant - (one time only) - Resource to initiate charter school upon approval 24106-24109- IDEA Fed. Grant(s) - Multiple resources to improve ed. outcomes for disabled students 24153 - U.S. Dept. of Education Grants - Resources tied to English acquisition and early intervention
25xxx - Federal Direct Grants <i>Example: 25153 Title XIX Medicaid 3/21</i>
26xxx - Local Grants <i>Example: 26123 - PNM Foundation</i>
26186 - Alb. Bernalillo County Community Schools Grant - resource geared to involve community
27xxx - State Flowthrough Grants <i>Example: 27112 - Charter Schools - Planning</i>
27000 - NM Lease Reimbursement Funding - \$700 x number enrolled students
28xxx - State Direct Grants <i>Example: 28178 - GEAR UP CHE</i>
28000 - State Legislative Appropriations - seek money for educational programming for deaf/HH
29xxx - Combined Local/State Direct Grants <i>Example: 29130 School Based Health Center</i>

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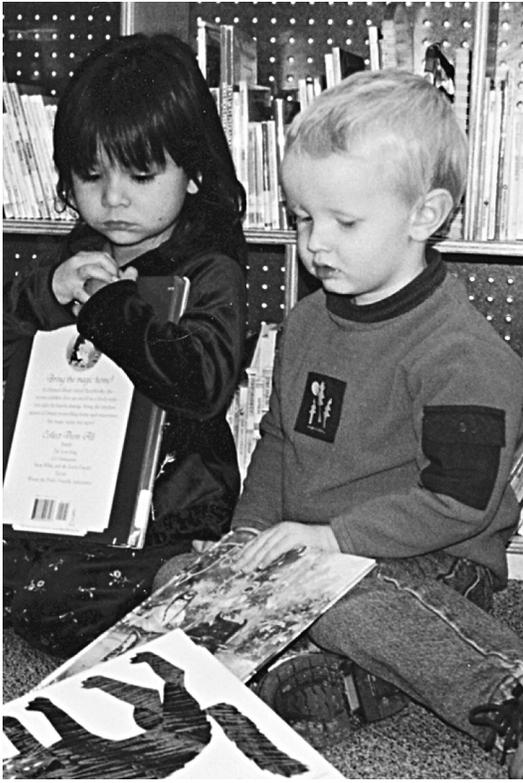
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List of Acronyms

ADA	Americans with Disabilities Act
ASL	American Sign Language
APS	Albuquerque Public Schools
AYP	Adequate Yearly Progress
BIP	Behavior Intervention Plan
CODA	Child of a Deaf Adult
DHH/dhh	Deaf and Hard of Hearing
DIBELS	Dynamic Indicator of Basic Literacy Skills
DRA	Diagnostic Reading Assessment
EA	Educational Assistant
ELL	English Language Learner
FAPE	Free and Appropriate Public Education
FBA	Functional Behavior Plan
FIP	Family Involvement Plan
IDEA	Individuals with Disabilities Education Act
IEP	Individualized Education Plan
LEA	Local Education Agency
LEP	Limited English Proficiency
LRE	Least Restrictive Environment
MDT	Multidisciplinary Team
MVL	Manipulative Visual Language
NCLB	No Child Left Behind Act
NCTM	National Council of Teachers of Mathematics
NMCDHH	New Mexico Commission of Deaf and Hard of Hearing
NMDOE	New Mexico Department of Education
NMPSIA	New Mexico Public Schools Insurance Authority
NMSBA	New Mexico Standards Based Assessment
NMSD	New Mexico School for the Deaf
OT	Occupational Therapy
PLP	Personal Learning Plan

PT	Physical Therapy
PTR	Pupil Teacher Ratio
SAT	Student Assistance Team
SLP	Speech Language Pathologist
YDI	Youth Development Inc.

Education of the Deaf & Hard-of-Hearing



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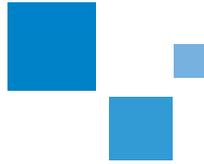
A Collaborative Effort
between the
New Mexico School
for the Deaf
and the
NM State Department
of Education



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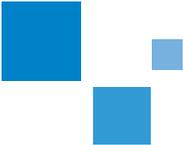
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The New Mexico Task Force Report on the Education
of the Deaf and Hard of Hearing





Cover and Layout Design: Henri Grau
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The New Mexico Task Force was formed to ensure that all children and youth who are deaf or hard of hearing in New Mexico become effective communicators, productive citizens who participate fully in our democracy, and secure and proud deaf or hard of hearing adults.

TABLE OF CONTENTS

Task Force Members	ii
Prologue: The Formation of the Task Force Acknowledgements	iii
Executive Summary	1
Section 1: Introduction A Vision for the Future A Call for Action	3
Section 2: Background Unmet Needs: An Overview The Unique, Low Incidence Nature of Hearing Loss Current Status of New Mexico’s Deaf and Hard of Hearing Children and Youth Existing Conditions in New Mexico	5
Section 3: Task Force Recommendations A New Model for a Communication- and Language-Driven Educational Delivery System Systemic Requirements	10
Section 4: Necessary and Immediate Next Steps Memorandum of Understanding (MOU) Among the New Mexico School for the Deaf, the State Department of Education, and the Department of Health Dissemination of the Task Force Report The Continuation of the Task Force Conclusion	16
References	18
Appendix A: Memorandum of Understanding (MOU) Among the New Mexico School for the Deaf, the State Department of Education, and the Department of Health	19
Appendix B: Quality Indicators for Programs that Serve Children and Youth who are Deaf or Hard of Hearing	40
Appendix C: Historic Changes in New Mexico for Children and Youth who are Deaf or Hard of Hearing	41
Appendix D: More Information about the Task Force Members	42
Appendix E: A Glossary of Acronyms Used in the Report	43

Ronald Stern, Chairperson – Superintendent, New Mexico School for the Deaf

Lawrence Siegel, Consultant – Director, National Deaf Education Project, Greenbrae, California

Neva Byrd – Director of Special Programs, Lovington Public Schools

Brad Calvert – Special Education Director, Aztec Public Schools

Larry Combs – Special Education Director, Artesia Public Schools

Karen Courtney – Executive Director, New Mexico Commission for Deaf and Hard-of-Hearing Persons

Pat Emerick – Special Education Director, Shiprock Public Schools

Rosemary Gallegos – Director of Early Childhood Education and Outreach, New Mexico School for the Deaf

Josselyn Gober – Parent, Los Lunas

Sam Howarth – State Director of Special Education, New Mexico Department of Education

Lin Marksbury – Executive Director, Community Outreach Programs for the Deaf

Kathy Moseley – Parent, Albuquerque

Steve Nover – Director of Center on ASL/English Bilingual Education and Research, New Mexico School for the Deaf

Ernesto Ortega – President, New Mexico Association of the Deaf

Glenda Rodrigues – Low Incidence Coordinator, Las Cruces Public Schools

Ruth Rodriguez – Parent, Las Cruces

Ralph Sedano – Coordinator, Interpreter Program, Santa Fe Community College

Mona Sherrell – Sensory Impairment Coordinator, Albuquerque Public Schools

Cathy Stevenson – Bureau Chief for Community Programs, Department of Health

Trish Thomas – Parent and Advocate, Laguna

The Formation of the Task Force

The New Mexico School for the Deaf (NMSD) and the New Mexico State Department of Education (SDE) formed the New Mexico Task Force on the Education of the Deaf and Hard of Hearing for one fundamental reason: children and youth who are deaf or hard of hearing face unique, long-standing, and life-altering educational barriers that require a comprehensive, communication- and language-driven educational delivery system.

The Task Force, a unique collaboration of educational and health professionals, academicians, parents, and adults who are deaf or hard of hearing convened on December 3, 2001, June 10, 2002, September 6, 2002, and January 24, 2003, in Santa Fe; February 25, 2002 in Albuquerque; and on April 22, 2002 in Las Cruces. The meetings were open to the public and all announcements and minutes were sent to different constituencies in the state to report the Task Force's progress and solicit feedback from all interested New Mexicans.

The Department of Education is responsible for the enforcement of the Individuals with Disabilities Education Act (IDEA), including Part B. The Department of Health (DOH) is the lead agency for IDEA (Part C) and the New Mexico Newborn Hearing Screening Program. The New Mexico School for the Deaf has two central, mandated missions: a) as a school, to provide a comprehensive, fully accessible and language-rich learning environment for its students who are deaf and hard of hearing, and b) as an Outreach Agency, to work collaboratively with families, agencies, and communities throughout the state to meet the unique communication, language, and learning needs of children and youth who are deaf or hard of hearing (See Article 6, §21-6-2 of New Mexico Statutes).

Acknowledgements

The Task Force wishes to thank the New Mexico State Department of Education and the New Mexico School for the Deaf for their leadership and collaboration in making the Task Force and this Final Report possible. The State Department of Education provided the funds necessary to cover travel and professional service costs and the New Mexico School for the Deaf provided coordination support throughout the process. The Task Force extends a special acknowledgement to Lawrence Siegel, Executive Director of the National Deaf Education Project (NDEP), for his astute and dedicated involvement, guidance and support. Additionally, Mr. Siegel primarily undertook the challenging task of writing and collating this Final Report based on findings and agreements of the Task Force.

The Task Force is grateful for the dedicated and patient interpreters who provided the communication necessary for the Task Force to complete its work.

The Task Force applauds the remarkable and positive collaboration among the New Mexico School for the Deaf, State Department of Education, and the New Mexico Department of Health. Even though each of these three partners has different responsibilities, they are united to serve New Mexico's children and youth who are deaf or hard of hearing. As discussed in this report, the three agencies have developed a Memorandum of Understanding that will be of significant value in the implementation of many of the recommendations of the Task Force.

On behalf of the entire field, the New Mexico School for the Deaf and the Department of Education extend their profound gratitude to the Task Force members for sharing their varied experiences, concerns, and ideas. The parents, consumers, and educators came from all over New Mexico and gave the Task Force a remarkable amount of individual energy and time. They developed historic recommendations that will lead to a quality and communication- and language-driven education for all children and youth who are deaf or hard of hearing.

The Task Force dedicates this report to New Mexico's present and future children and youth who are deaf or hard of hearing and their families.

Although children and youth who are deaf or hard of hearing in New Mexico have the same distribution of intelligence and capabilities as their hearing peers, they have not achieved commensurate with that potential.

The New Mexico School for the Deaf (NMSD) and the New Mexico State Department of Education (SDE) collaborated to form the New Mexico Task Force on Education of the Deaf and Hard of Hearing to ensure that all children and youth who are deaf or hard of hearing in New Mexico become effective communicators, productive citizens who participate fully in our democracy, and secure and proud deaf or hard of hearing adults.

This Task Force has “listened” to the pleas of families and the frustrations of educators and deaf and hard of hearing adults and believes there is a fundamental human rights issue before us: the right and necessity to develop communication and language which is the foundation for any educational growth. The Task Force recommendations, listed briefly below, must be implemented to help children who are deaf or hard of hearing in New Mexico reach their potential.

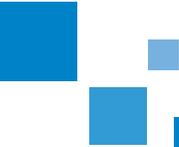
The Task Force’s vision is fully consistent with the historic recommendations of the Commission on the Education of the Deaf (COED, 1988), the 1994 National Association of State Directors of Special Education (NASDSE) Guidelines, the Statement of Principle for Deaf and Hard of Hearing Children (National Deaf Education Project, NDEP, 2000), and the National Agenda (2001). The Task Force recommends:

I. A communication- and language-driven educational delivery system in New Mexico that includes:

- Communication and language assessment
- Communication and language development
- Communication and language access
- Development and dissemination of program standards and “Best Practice”
- Appropriate staffing
- Oversight guidelines
- Accountability and program assessment
- Information clearinghouse for educators, parents, guardians and consumers
- Early intervention
- Parental support services
- Career transition
- Technology
- Support for Local Educational Agencies (LEAs)

II. To ensure the development of a communication- and language-driven educational model for children who are deaf or hard of hearing, the following steps are needed:

- Legal authority for a communication- and language-driven educational delivery system and an Educational Bill of Rights for children and youth who are deaf or hard of hearing



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- Legislative support and funding
- Expansion and/or initiation of outreach services provided by the New Mexico School for the Deaf
- Dissemination of the Task Force Report and continuation of the Task Force to monitor implementation of its recommendations
- Immediate evaluation of the Task Force recommendations by the New Mexico School for the Deaf and the Departments of Education and Health through a Memorandum of Understanding developed by these three institutions

A Vision for the Future

The Task Force has one over-riding and uncompromising vision:

All children and youth who are deaf or hard of hearing in New Mexico will become effective communicators, productive citizens who participate fully in our democracy, and secure and proud deaf or hard of hearing persons fully able to enjoy and partake in life. They will have age-appropriate and life-long:

- communication and language proficiency;
- cognitive, academic, social, and emotional skills;
- reading and writing skills; and
- career and independent living skills.

To that end, New Mexico's children and youth who are deaf or hard of hearing will:

- meet state content and performance standards and graduate with a diploma;
- have full, appropriate, and rich communication and language access to their communities;
- have access to post-secondary educational opportunities; and
- be knowledgeable about their rights as deaf or hard of hearing persons.

While detailed recommendations are discussed later in this report, the following represent core programmatic components necessary to implement the Task Force's Vision:

- programs to ensure the development of age-appropriate communication, language, literacy, and academic, social, emotional and independent living skills;
- trained professionals and support staff who understand the unique nature of hearing loss and communication development; and
- a meaningful communication and language environment in and out of the classroom that includes a critical mass of peers, language-proficient educational staff, and deaf and hard of hearing role models.¹

The Task Force's Vision and recommendations are fully consistent with the historic recommendations of the Commission on the Education of the Deaf (COED, 1988), the 1994 National Association of State Directors of Special Education Guidelines (NASDSE), the Statement of Principle for Deaf and Hard of Hearing Children from the National Deaf Education Project (NDEP, 2000), and the National Agenda², all of which have brought powerful and clear guidance to the field for improving the educational and life outcomes for individuals who are deaf or hard of hearing. They await implementation in New Mexico.

¹ Given that the communication needs of children and youth who are deaf or hard of hearing are significantly varied - from those who have receptive and expressive oral skills to those who rely exclusively on sign language to communicate - this Task force emphasizes that each student's communication and language needs will determine the kind of peers needed.

² The National Agenda is the result of a coalition of leading national consumer, parent and educational deaf/hard of hearing organizations formed in 2001 to address "need areas" in the national educational delivery system for children and youth who are deaf or hard of hearing. It is a set of very strong recommendations which relates directly to the areas of concern addressed by the New Mexico Task Force. Patterned after the National Agenda for the blind, this National Agenda has 8 major goal areas which have been disseminated throughout the nation. The document recognizes that deaf and hard of hearing children have unique, diverse and rich communication and language characteristics which must be at the center of, and drive the educational programming provided them. The National Agenda is also a process and will be instrumental in developing local, state, regional, and national resources to improve educational opportunities for children and youth who are deaf or hard of hearing.



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“It is time to recognize our children who are deaf or hard of hearing as eager and curious children wanting desperately to learn and participate with everything around them.”

Parent Member of the Task Force

A Call for Action

Families of hearing children give little or no thought to whether their sons and daughters have the capacity to communicate, teachers who can communicate directly with them, or access to other children. Families of children who are deaf or hard of hearing think of these issues on a daily basis and see the heartbreak in their children’s eyes especially as the gap between their children and others grows year after year, exponentially in many cases.

The state of New Mexico has the expertise, experience, and passion within its academic, institutional, departmental, consumer, and family communities to create exemplary programs for children and youth who are deaf or hard of hearing. This in turn can support a model for other states, particularly those with a strong rural character.

Some Task Force recommendations can be initiated at once, others will take time; all will take energy, determination, and resources. Accordingly, the Task Force urges the Governor; Lieutenant Governor; Legislature; New Mexico Departments of Education, Health and Vocational Rehabilitation; and NMSD to review these recommendations and take action so that the educational outcomes for children and youth who are deaf or hard of hearing in New Mexico are consistent with their abilities, hopes, and dreams.

“To impede communication and language, even unwittingly, is to harm the human spirit; to foster communication and language is to reveal all the possibilities of life.”

(National Deaf Education Project, Gallaudet University 2000, p.2)

A. UNMET NEEDS: AN OVERVIEW

Communication and language are fundamental to the human condition. To express and understand language is central to the development and well-being of our children and unquestionably at the core of any educational experience.

New Mexico, with its varied and wonderful cultures, understands the importance of communication and language. And yet in New Mexico, as in every other state in this nation, children and youth who are deaf or hard of hearing do not develop effective communication and language skills. Therefore, as a result, their education isolates rather than includes them and limits rather than expands essential skills required to fully participate in society.

Children and youth who are deaf or hard of hearing in New Mexico have the same distribution of intelligence, capabilities, and potential as their hearing peers (Calderon, 1998). Yet, year after year, the average reading skills of adults in the United States who are deaf or hard of hearing remain at a third grade level while other indicators of economic well-being reflect a stagnant and discouraging standing in American society. (See §C1 on p. 7)

This Task Force has “listened” to the pleas of parents and guardians and the frustrations of educators and deaf and hard of hearing adults and believes there is a fundamental human rights issue before us. We urge New Mexico to fully embrace its children and youth who are deaf or hard of hearing and ensure that they receive a comprehensive, communication- and language-driven education. Only then can they develop their human potential and take their rightful place as equal and contributing members of our state’s varied and remarkable communities.

B. THE UNIQUE, LOW INCIDENCE NATURE OF HEARING LOSS

So frequently it is said that this or that child is “unique” that the designation loses some of its force and meaning. However, in actuality, children and youth in New Mexico who are deaf or hard of hearing are numerically and linguistically unlike any others in our educational system, a fundamental fact too frequently ignored by our policies, laws, and educational systems.

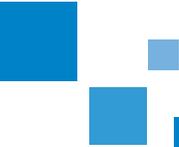
Deaf or hard of hearing children and youth in New Mexico live in a large and predominately rural state. Of the 60,000 special education children in New Mexico, approximately 500 are deaf or hard of hearing. Of this 500, approximately 150 attend school in the Albuquerque area; 145 attend the NMSD school programs in Santa Fe, Albuquerque and Las Cruces; 20 receive school services in Las Cruces; with the remainder being served throughout the state. Approximately one-half of these students are Hispanic, 13% are American Indians and 3% are African-Americans.³ In addition, the NMSD program serves 100 infants and young children in a statewide parent-child program.

The first step in providing an effective communication- and language-driven educational system is to recognize the impact that a low-incidence “disability” has, particularly when it so fundamentally involves a child’s ability to communicate.

1. Unique Communication and Language Characteristics

Unlike any other members of the educational community, children and youth who are deaf or hard of hearing do not have full or, in some cases, any auditory access to expressive and receptive language. This is a distinction of fundamental importance. In addition, many families in New Mexico are bi- and even tri-lingual with Spanish being the predominant language at home, thus adding to the complexity of communication and language development.

³ This Task Force notes the importance of collecting accurate and complete data on the number and demographics of children and youth in New Mexico who have a hearing loss, as well as utilizing Universal Hearing Screening to identify those children at birth.



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Children and youth who are deaf or hard of hearing use a variety of communication modes, systems and languages, including American Sign Language (ASL), various forms of manually coded English, and spoken language.⁴

2. The Importance of Early Development of a Natural Language

Deaf and hard of hearing children, like their hearing peers, must develop early and appropriate communication and language skills, and there is no question that such development requires the earliest possible exposure to communication and language.

There is a compelling body of academic research validating the importance of early and meaningful “natural” communication as a crucial stepping-stone for the full development of language and English skills. In addition, a child who is exposed to appropriate early communication is more apt to reach important cognitive and developmental milestones in the first few years of life (Yoshinaga-Itano and Apuzzo, 1998).

3. The Lack of Communication and Language Opportunities

Since approximately 85 to 90% of children and youth who are deaf or hard of hearing have hearing parents or guardians, many of these children lack communication and language at home (Gallaudet Research Institute, 2002). Communication and language opportunities in school and the community are often limited, even non-existent, for many deaf children. Specifically, these children lack:

- a critical mass of peers and adults with whom they can communicate fluidly and directly; and
- the provision of communicatively-fluent staff, adult role models, and communication-accessible program components and resources, including skilled interpreters.

Although it is especially true outside of Santa Fe, Albuquerque, and Las Cruces, the low incidence nature of a hearing loss creates life-affecting isolation even in these larger communities. The lack of ongoing assessment of cognitive and linguistic abilities and individual learning style, “usable” hearing, effective amplification or cochlear implants, further impedes communication opportunities. Further impediments can occur if students’ cognitive and linguistic development is delayed or if their preferred learning style (e.g., visual vs. auditory) is not adequately accommodated in their education setting. In addition, as the deaf or hard of hearing child moves through school, there is insufficient on-going analysis of the communication/language accessibility of the curricula and environment, as well as assessment of communication and language development. Further lacking are timely program modifications to ensure communication, optimal development, and academic achievement.

4. The “Medical/Pathological Model” and Its Impact on Deaf or Hard of Hearing Students

Although deaf and hard of hearing children and youth have the potential for effective communication and well-developed languages, they have been historically viewed within, and relegated to, a “medical/pathological model.” They are viewed from a dysfunctional perspective that claims something is wrong with their communication and language, and therefore the educational system must “fix” this problem. The medical/pathological model has compromised and harmed individuals who are deaf or hard of hearing, reducing their culture, communication and language to an “illness” or a “disability.” The Deaf/Hard of Hearing communities have “spoken” clearly and compellingly about why they represent a highly functional linguistic and cultural minority (Lane, 1989).

The Task Force therefore strongly recommends that policy makers, educators and advocates acknowledge the unique and positive communication and language characteristics of children and youth who are deaf or hard of hearing and work to address the negative impact that the pathological model has had on them. These changes are indispensable to improved opportunities and outcomes for children and youth who are deaf or hard of hearing.

⁴ ASL, the language of the Deaf and Hard of Hearing community, is a grammatically complex, formal language, fully effective in expressing as much as any spoken language. There is a viable and strong Deaf and Hard of Hearing culture across the nation and in New Mexico. It represents a distinct language and cultural minority community and a source of strength for many deaf or hard of hearing children, youth and adults, who do not see their community as a “disability category.” (Padden and Humphries, 1988)

C. CURRENT STATUS OF NEW MEXICO'S DEAF AND HARD OF HEARING CHILDREN AND YOUTH

1. The Consequences of an Inadequate Educational System

While statistics often reduce the human experience due to their dryness, they do tell us of the cost of an educational system that is not communication- and language-driven.

- As of April 2002, 5.9% of New Mexico's population was unemployed or under-employed, whereas 64% of New Mexicans with a significant hearing loss were unemployed or under-employed (Houtenville, 2001). Nationally, approximately 1/3 of all deaf adults rely on some form of governmental assistance and the average income of deaf adults is 40-60% of their hearing counterparts (NDEP, 2000).

These sobering statistics should not be surprising since they have their origin in the following educational figures:

- Children and youth who are deaf or hard of hearing graduate from high school with average reading skills ranging from a 2.8 to 4.5 grade level compared to 10th+ grade reading level for their hearing counterparts (Allen, 1986; Traxler, 2000).
- Between the ages of 8 and 18, children and youth who are deaf or hard of hearing gain only 1.5 years in reading skills (Allen, 1986; Traxler, 2000).
- Thirty percent of all children and youth who are deaf or hard of hearing leave school functionally illiterate as compared to 1% among hearing children and youth (Conrad, 1979; Marschark, 1997).
- Only 8% of deaf or hard of hearing students graduate from college (COED, 1988).

The relationships between failed communication and language development, academic difficulties, and unemployment or under-employment are direct ones and ultimately exact their cost on all of New Mexico's citizens.

2. How Application of Federal Law has Impacted New Mexico's Deaf or Hard of Hearing Students

In 1975, the United States Congress passed IDEA which requires the provision of a "free appropriate public education" (FAPE) that meets a child's "unique needs" and is provided in the "least restrictive environment" (LRE).

The LRE is defined as a child's right to be educationally placed to the "maximum extent" appropriate with children who are non-disabled. It further states that "...removal of children with disabilities from the regular educational environment occurs only if the nature and severity of the disability is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily" (34 CFR Sec. 300.550b)(1)(2).

IDEA requires that a child's placement be based on individual needs and therefore requires a continuum of placement options. This continuum includes, but is not limited to, regular classrooms and special schools and programs. The nature of a deaf or hard of hearing student's needs is often such that fluid, barrier-free access to communication with peers and staff may not be possible in a regular education environment even with the use of supplementary aids and services. Thus, the "LRE" for some students may be the non-regular classroom because it can provide a communication-rich learning environment.

While the 1997 re-authorization of IDEA added 34 C.F.R. §300.346(a)(2)(iv) which requires the IEP team to consider the communication needs of deaf and hard of hearing students, the broader complexities of the LRE mandate continue to pose difficulties for many children and youth who are deaf or hard of hearing.⁵

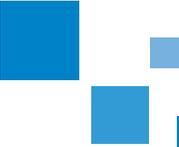
⁵See IDEA, 20 U.S.C. 1400; New Mexico Code Sections, Title 6. For a more detailed discussion of how IDEA has not effectively served many children and youth who are deaf or hard of hearing, see COED, 1988 Gallaudet University, 2000.

D. EXISTING CONDITIONS IN NEW MEXICO

1. Positive Factors in New Mexico that will Facilitate Necessary Change

New Mexico has characteristics and strengths necessary to develop a communication- and language-driven educational delivery system for children and youth who are deaf or hard of hearing:

- a. First and foremost are the deaf and hard of hearing children and youth of New Mexico whose determination, intelligence, and humanity remind us each day what is at stake for all of us. In addition, New Mexico has:
 - knowledgeable and caring parents and guardians who are ready to work with the system to improve educational outcomes for their children;
 - dedicated and caring teachers, local and state administrators, interpreters and other support staff;
 - knowledgeable and experienced deaf or hard of hearing adults who are ready and willing to assist in the development of a communication- and language-driven educational system; and
 - strong and tolerant multi-cultural and multi-lingual communities, and therefore a state environment that understands the needs of children and youth who are deaf or hard of hearing.
- b. Each Task Force member brings a unique and positive perspective to this work and will help build the institutional capacity necessary to serve children and youth who are deaf or hard of hearing.
- c. The Task Force has not had to reinvent the wheel - the COED and the NASDSE reports, the NDEP's Statement of Principle, and the National Agenda provide well-supported recommendations for improving the outcomes for children and youth who are deaf or hard of hearing.
- d. NMSD has provided a variety of outreach services to families, local programs and professionals in the field of deaf and hard of hearing education in New Mexico and therefore can and must play a key role in providing services as recommended later in this Report.
- e. Current working agreements exist among the State Departments of Education and Health, Local Education Agencies (LEAs) and NMSD, including:
 - Joint Powers Agreement between NMSD and DOH to serve children 0-3;
 - coordinated planning between the DOH and NMSD to establish an effective referral system for Newborn Hearing Screening;
 - a Memorandum of Understanding among NMSD, SDE, DOH and other state agencies to coordinate and assure smooth transitions between Part C and Part B programs;
 - Joint Powers Agreements between Local Education Agencies and NMSD to provide local preschool services; and
 - current resources provided by the NMSD Outreach program (ERCD), including consultation and conferences to LEAs and families.
- f. Relationships exist between NMSD and the educational communities in and outside of New Mexico such as:
 - the Star Schools Bilingual Education training project housed at NMSD;



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- the coordinated project between NMSD, Boys Town National Research Center, Colorado Home Intervention Program, and SKI*HI Institute to develop a series of best practice videotapes for early intervention; and
 - NMSD being an active member of CEASD's national accreditation team for schools for the deaf.
- g. Clear commitments by NMSD and the State Departments of Education and Health exist to work collaboratively to implement many of the Task Force's recommendations. (See §4A, page 16, of this report for a description of the Memorandum of Understanding (MOU) among NMSD and the Departments and Appendix A for a copy of the MOU).

2. Current Conditions that Compromise the Educational Opportunities for Children and Youth who are Deaf or Hard of Hearing in New Mexico

In addition to those factors described in §§2A, B and C (pp. 5-7), the Task Force notes the following current conditions in New Mexico which hinder the progress of children and youth who are deaf or hard of hearing:

- a. Geography: The low incidence nature and distribution of the population of children and youth who are deaf or hard of hearing in New Mexico, as well as the rural nature of the state, strain the system's ability to provide the peer critical mass, services, programs, and staff for all the state's children and youth who are deaf or hard of hearing.
- b. Due to a variety of factors, such as a lack of resources and accurate demographic information, families of children who are deaf or hard of hearing do not always have access to sufficient (or sometimes, any) support resources, information, advocacy, training, knowledgeable professionals, and early communication and language opportunities.
- c. A coordinated system which ensures timely transition from a failed Newborn Hearing Screening to diagnosis and intervention is not yet fully developed. The age of identification and intervention for the state's children and youth who are deaf or hard of hearing continues to average at 18 months. Intervention by 6 months is essential for the development of appropriate linguistic and cognitive skills (Yoshinaga-Itano & Appuzzo, 1998).
- d. There is a serious lack of trained personnel with expertise in deafness, including teachers, service providers, interpreters, counselors and administrators. Only 10% of teachers serving New Mexico's children and youth who are deaf or hard of hearing have degrees in deaf education and only 8% have special education majors with an emphasis in deafness (Chinn, 1999).
- e. There is a lack of a programmatic requirement and understanding that communication and language development is formal and ongoing; communication development and access do not drive the current system. Existing law, policy, attitudes, and budgetary limitations hinder the development of appropriate programs for children and youth who are deaf or hard of hearing.⁶
- f. The state currently has no effective mechanism to measure deaf or hard of hearing student outcomes, including age appropriate cognitive, social, academic, and linguistic skills.
- g. Many of the state's deaf or hard of hearing students currently experience low expectations and lack of access to the general curriculum, including appropriate assessment.

⁶ When IDEA was enacted in 1975, the U.S. Congress promised to fund special education up to 40%. Over the last 28 years, federal funding of this federal mandate has never been above approximately 15%. If IDEA were fully funded today, New Mexico would receive approximately \$93 million additional dollars for special education. Beyond that, the lack of appropriate funding continues to have a fundamentally negative impact on the provision of services to all children and youth and certainly in terms of children and youth who are deaf or hard of hearing. That budget deficits are increasingly common, does not change the individual impact such shortfalls have on our children and youth.

A. A NEW MODEL FOR A COMMUNICATION- AND LANGUAGE-DRIVEN EDUCATIONAL DELIVERY SYSTEM

In calling for a change in the existing educational delivery system, this Task Force is making a serious and important challenge. As parents, guardians, teachers and administrators of children and youth who are deaf or hard of hearing; adults who are deaf or hard of hearing; and advocates and academicians who have a keen understanding of the experience of these children and youth; we propose a model with the ultimate goal of improving educational outcomes for New Mexico's children and youth who are deaf or hard of hearing. The Task Force urges the development of a communication- and language-driven educational delivery system with the following critical components:

1. Communication and Language Assessment

Early and ongoing appropriate assessment of the communication and language needs of children and youth who are deaf or hard of hearing is needed in order to provide parents, guardians, and professionals accurate data as to the individual child's current communication and language (and other) skill levels. This information is fundamental to the educational decision-making process.

2. Communication and Language Development

Early, formal, and ongoing services and programs that help children and youth who are deaf or hard of hearing develop and maintain age-appropriate communication and language skills are needed.⁷

In 2002, Colorado formally recommended the creation of such a system for its children who are deaf or hard of hearing (Colorado Department of Education and the Colorado School for the Deaf and the Blind, 2002; State Special Schools Division, California Department of Education, 2000).

3. Communication and Language Access

Access to a critical mass of age and communication peers, as well as educational staff able to communicate proficiently in the child's communication mode and language, is essential for the development of age-appropriate cognitive, linguistic, and social skills.

These three broad goals should be addressed and delivered through annual communication and language assessments and IEPs that place emphasis on communication and language.

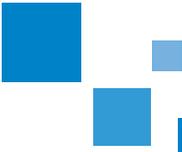
4. Development and Dissemination of Program Standards and "Best Practice"

Given the crucial communication and language needs of children and youth who are deaf or hard of hearing, this Task Force strongly recommends the development and dissemination (including training and follow-up) of program standards, best practice and quality indicators, including educational and linguistic strategies, technical assistance and use, and other recommendations for improved literacy among children and youth who are deaf or hard of hearing (See Appendix B for a list of proposed quality indicators).

5. Staffing

A major problem facing New Mexico, as well as the entire nation, is a paucity of teachers, aides, interpreters, administrators, employment counselors, speech therapists, tutors, and other professionals who are fully qualified and have expertise in education of the deaf and hard of hearing and can communicate directly and proficiently with children and youth who are deaf or hard of hearing.

⁷The concept of a "communication-driven" educational delivery system which is the core of the National Agenda was formally submitted to Congress for inclusion in the re-authorized IDEA, and is the basis for changes contemplated by other states.



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The Task Force strongly recommends that immediate steps be taken to:

- assess the current status of staffing for deaf and hard of hearing children and youth in New Mexico;
- recruit and train professionals, particularly individuals who are deaf or hard of hearing;
- work directly with post-secondary and other institutions of higher learning, in and out of New Mexico, to develop an effective recruitment plan;
- develop post-secondary training programs with special attention to enrollment of students from New Mexico who are Hispanic or American Indian to increase the number of culturally sensitive and skilled professionals and assist them so they will remain in the educational system;
- use the Task Force's Recommendations and assistance from NMSD, the State Department of Education, and other institutions to develop strategies for attracting and retaining qualified teachers and other staff; and
- contact Gallaudet University, California State University at Northridge and other well-known teacher training institutions for assistance in recruiting and retaining appropriately trained and skilled teachers for children and youth who are deaf or hard of hearing.

6. Oversight Guidelines

The Task Force recognizes that the long-range goal of establishing an effective communication- and language-driven educational delivery system requires an appropriate line of authority within the state. Therefore the Task Force recommends, in addition to the recommendation in §3B1 on page 14, an analysis of the importance of developing a consistent oversight structure with expertise in deafness.

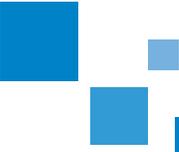
As one step toward accomplishing this recommendation, the Task Force recognizes the serious need for NMSD, SDE, and DOH, through the MOU, to develop a detailed description of the structure for oversight and how the communication- and language-driven model will be expeditiously and appropriately implemented and monitored. Consistent with IDEA requirements, the Task Force recommends that programs for children and youth who are deaf or hard of hearing be monitored to determine how they provide for the unique needs of these children and youth, taking into account best practice and the recommendations delineated in this report.

7. Accountability and Program Assessment

In order to facilitate such monitoring and to develop useful baseline data on how children and youth who are deaf or hard of hearing are being educated, the Task Force recommends that up to 10% of non-identified IEPs be randomly selected throughout the state for auditing and assessed in the context of IDEA regulations, in particular 34 C.F.R. §300.346(a)(2)(iv) which requires that the IEP team consider the specific communication needs of the child. Such auditing would gauge the overall health of a communication-based education, including the services and technical assistance provided to children who are deaf or hard of hearing. (See section directly above for a related discussion of the need for a line of authority within the state to assure appropriate programming for children who are deaf or hard of hearing.)

8. Information Clearinghouse

The Task Force recommends the establishment of an information clearinghouse for educators, parents, guardians and consumers. The clearinghouse would gather and provide statistical data and information about the broad array of support services and information available for families with children and youth who are deaf or hard of hearing.



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As to the first purpose, the clearinghouse would establish the statistical foundation upon which appropriate and effective communication- and language-driven goals and an educational delivery system for children who are deaf or hard of hearing can be developed and implemented. It would contain and collect:

- baseline data, including the actual number of children who are deaf or hard of hearing throughout the state; and
- longitudinal data regarding educational, employment, and welfare statistics of deaf or hard of hearing children, youth and adults.

As to the purpose, it would provide information on-line and through other means on:

- support services, including early intervention, language and communication development and other programs;
- contacts for all local, regional, state and federal agencies/entities which provide birth-to-22 school support/ services for children and youth who are deaf or hard of hearing and their families;
- advocacy and other family support resources; and
- information about hearing loss, educational strategies, communication and language development, technology, secondary and vocational programs, as well as information regarding insurance services, hearing testing, behavioral counseling, cochlear implants and interpreters.

9. Early Intervention

As reflected in the study by Drs. Yoshinaga and Apuzzo (1998), the earliest possible meaningful communication and language exposure, as well as identification and intervention by at least 6 months, is crucial for a positive prognosis of a deaf or hard of hearing child's language development in the first few years of life.

This Task Force cannot stress enough the importance of an effective early identification and early intervention system in New Mexico that would include:

- ongoing coordination between the Department of Health, NMSD, and hospitals in the state to ensure early identification of hearing loss;
- an easily accessible system to ensure that families have resources, including training so that their deaf or hard of hearing children have communication and language access/development from birth onward;
- procedures to ensure that once a child enters school, whether at age 5 or earlier, there is a smooth transition between those agencies responsible for helping parents and guardians develop communication and language with their children and the educational system in New Mexico. Information regarding current levels of communication and language skills must be effectively shared between agencies; and
- early and ongoing vision screening because so many children and youth who are deaf or hard of hearing are visual learners and visual communicators.

10. Parental Support Services

In addition to being central partners in the educational process, parents and guardians spend more time with their children than anyone else and are, therefore, important language facilitators and models. Extended family members are also crucially important in the development of communication and language skills. The Task Force was continually and passionately reminded of the need for support resources for parents and guardians. Parents and guardians also want to be treated as equal partners in the IEP process and in the education of their children. In addition to the recommendations under §§ 3A1 (p. 10), 3A9 (p. 12) and 3B3 (p. 15), an expanded statewide outreach structure is needed in New Mexico to ensure that parents and guardians have:

- an awareness of all educational, linguistic, vocational, health, and other appropriate resources and agencies in New Mexico and how to contact them;
- accurate and complete information on all aspects of educating a child with a hearing loss including best practice, strategies and resources available to ensure the earliest possible development of communication and language, and other recommendations for a communication- and language-driven education;
- workshops, training, technical assistance and consultation on all educational/linguistic issues relevant to children and youth who are deaf or hard of hearing including assessment and test scores. Such support will help parents and guardians as they work with local educational agency administrators and staff to improve services for their children;
- opportunities to develop communication and language proficiency to meet their children's needs;
- advocacy services and information on other parent support resources at the state and national levels and access to experts on hearing loss;
- assistance in establishing a statewide organization for families of children and youth who are deaf or hard of hearing; and
- support and information if they use English as a second language.

In terms of the IEP and other educational processes, the Task Force also recommends that:

- activities and information exchange between the home and school are ongoing and effectively coordinated; and
- there be training on the requirements, purposes, and procedures of IDEA including the IEP process, Part B, Americans with Disabilities Act (ADA) and other laws and regulations affecting a child who is deaf or hard of hearing.

11. Career Transition

The Task Force recommends a partnership between the Division of Vocational Rehabilitation, community agencies, post-secondary institutions and schools/programs serving deaf/hard of hearing high school students to ensure appropriate opportunities for work and/or college for children and youth who are deaf or hard of hearing in New Mexico.

12. Technology

The Task Force recommends that all schools and programs serving children and youth who are deaf or hard of hearing make technology an integral part of every child's education; the appropriate application of technology for these children is vital as it provides heretofore unavailable access to language, information and career opportunities.

13. Support for Local Educational Agencies

Local school districts have the important day-to-day responsibilities of providing an effective and appropriate educational program for children and youth who are deaf or hard of hearing. They need support and resources to become more knowledgeable about hearing loss and the complex communication and language issues affecting children and youth who are deaf and hard of hearing, including:

- training, workshops, and other in-services provided by appropriate personnel to assist local educational agencies in improving programs and services for children who are deaf or hard of hearing;
- effective exchange of information and resources between school districts and other regional, state, and even national repositories of information about the communication, language, and educational needs of children and youth who are deaf or hard of hearing; and
- development of an on-line system, including distance-learning resources, by NMSD, SDE and local school districts to allow teachers (and other staff members) and families of children and youth who are deaf or hard of hearing throughout New Mexico to share information and experience.

B. SYSTEMIC REQUIREMENTS

This Task Force notes the important steps that must be taken to ensure the development of a communication- and language-driven educational model for children who are deaf or hard of hearing, including the following:

1. Legal Authority for a Communication- and Language-Driven Educational Delivery System and an Educational Bill of Rights for Children and Youth Who Are Deaf or Hard of Hearing

Law and policy must be established to ensure that communication and language assessment, development, and access are mandated elements of any deaf or hard of hearing child's IEP (COED, 1988).

The Task Force advocates changes on the national level that make communication and language equal and vital partners of FAPE. This is logical and fair and recognizes that which is important to all children and youth - communication.

The Task Force strongly recommends that the New Mexico Legislature pass an Educational Bill of Rights for children and youth who are deaf or hard of hearing, not only to recognize their crucial needs and to acknowledge the human rights issues involved, but as a first step in translating the Vision of the Task Force into reality. Numerous states have already passed such legislation, including Colorado.

In order for a Bill of Rights to be effective, it must have mandating language, be effectively disseminated to educators and parents and guardians, and have funding for implementation.

2. Legislative Support and Funding

Appropriate funding is a critical component of any successful educational program. The Task Force therefore strongly recommends that a memorial be passed by the New Mexico Legislature to study the fiscal impact of the recommendations of this Task Force. The next step is to ensure that the Departments of Education and Health and NMSD (and other agencies deemed appropriate) have adequate resources to carry out this work.

3. Role of the New Mexico School for the Deaf

NMSD is a unique and treasured resource, and the Task Force recommends that NMSD, as a State Supported Educational Agency, expand its outreach services. NMSD will expand and/or initiate the following services:

- increase and further formalize support and consultation services to professionals and other staff who work with students who are deaf or hard of hearing in local programs;
- enter into agreements with local educational agencies to provide outreach services from preschool through 12th grade;
- enter into agreements with other state agencies to effectively utilize NMSD and other state resources for delivery of birth-to-22 services, including state-wide technical assistance;
- maintain state of the art resource materials, information and data collection;
- serve as a model delivery program for demonstration purposes to local educational agencies and other programs; and
- work with school districts, the State Department of Education, and universities and colleges to prepare professionals who will teach children and youth who are deaf or hard of hearing.

The Task Force recommends additional resources for NMSD so that it can expand its services.

A. MEMORANDUM OF UNDERSTANDING (MOU) AMONG THE NEW MEXICO SCHOOL FOR THE DEAF, THE DEPARTMENT OF EDUCATION AND THE DEPARTMENT OF HEALTH (SEE APPENDIX A)

In conjunction with the work of the Task Force and in recognition of the key issues facing children and youth who are deaf or hard of hearing, a draft Memorandum of Understanding (MOU) among the New Mexico School for the Deaf, the New Mexico State Department of Education and the Department of Health has been developed. The MOU:

- identifies roles and responsibilities of the signatory agencies and coordinates efforts to meet the educational, communication and language, and social needs of New Mexico’s children and youth who are deaf or hard of hearing and their families; and
- determines what parts of this report can be immediately implemented and take action accordingly.

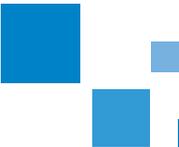
The Task Force recommends that parties to the MOU:

- report to the Task Force (or whatever entity is established for such purpose) within 6 months after the completion of this report as to what steps have been taken to implement the Task Force Report and how all of the Task Force Recommendations will be implemented.

B. DISSEMINATION OF THE TASK FORCE REPORT

The Task Force Report and its recommendations will be disseminated with a formal request for review and action as follows:

- The development of a dissemination list will include, but not be limited to all parents and guardians of children and youth who are deaf or hard of hearing; educators in the field; the Governor; Lieutenant Governor; Tribes and Pueblos, Parents Reaching Out (PRO); the LEA programs; Family Infant Toddler Programs (FIT); Interagency Coordinating Council; IDEA Advisory Panel; Department of Health; Children, Youth and Families Department (CYFD); Human Services Department; State Department of Education; Bureau of Indian Affairs; New Mexico Legislators; University of New Mexico; New Mexico State University; Division of Vocational Rehabilitation; Deaf Cultural Center; Community Outreach Program for the Deaf (COPD); Self Help for the Hard of Hearing (SHHH); American Society for Deaf Children (ASDC); Hands and Voices; National Deaf Education Project (NDEP); and the New Mexico Association of the Deaf (NMAD).
- The Departments of Health and Education and NMSD will make the Task Force Report available on the web and disseminate information about how to access the report. In addition, the New Mexico Association of the Deaf and the New Mexico Commission on Deaf or Hard of Hearing Persons (NMCDHH) will be contacted immediately to request that this Task Force Report be posted on their websites.
- The Departments will explore funding for Spanish translation and printing.
- Individual Task Force members will disseminate the report within their respective agencies, organizations, and constituency groups and seek review of and support for the Task Force Recommendations.
- The New Mexico SDE Special Education Office will present and discuss the Task Force Report and its Recommendations with the New Mexico Directors of Special Education to seek their assistance in disseminating, discussing, and implementing the report. The involvement of the Directors and all local educational agencies is a high priority.
- Through the assistance of NMSD, SDE, DOH, NMDDHH and this Task Force, a comprehensive list of individuals, groups and institutions will be developed to ensure full dissemination of the Task Force Report in the state.



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- The Departments of Health and Education and NMSD will incorporate distribution of the report into planned and/or established training activities, community and professional meetings, as well as seeking out additional opportunities to support statewide distribution.

C. THE CONTINUATION OF THE TASK FORCE

Given its expertise and the historic nature and composition of this Task Force, we recommend that funding and other necessary support be made available so that the Task Force can continue to work with the MOU partners and the broader community in implementing the recommendations of this report. We stress the importance of a broad-based entity like the Task Force to provide input and general oversight as these recommendations are studied and implemented.

CONCLUSION: CALL TO ACTION

New Mexico must take action to improve service to its children and youth who are deaf or hard of hearing. It must do so for many reasons. There are practical and even monetary reasons for doing this: To ensure the health and productivity of New Mexico's population and to encourage self-sufficiency; and, in the process, reduce rather than increase governmental assistance to its citizens.

It is necessary because we cannot and must not tolerate the isolation of our children and youth and cannot accept impediments to their well-being and educational growth.

It is necessary and the right thing to do because this is not a partisan issue or an academic debate, but a matter of basic human needs and human rights.

It is necessary because we cannot lose another generation of children and youth who are deaf or hard of hearing.

Finally, it is necessary because they are all our children and youth.

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MEMORANDUM OF UNDERSTANDING (MOU) AMONG THE NEW MEXICO SCHOOL FOR THE DEAF, THE STATE DEPARTMENT OF EDUCATION AND THE DEPARTMENT OF HEALTH

The Memorandum of Understanding (MOU) was developed in response to the Task Force Recommendation that a tool for sharing information and designating resources and accountability between state agencies be designed to address the various facets of the report. The following processes were/will be used in the creation and implementation of this memorandum:

- Designated representatives from the New Mexico School for the Deaf, New Mexico State Department of Education and New Mexico Department of Health developed the MOU which in turn was reviewed by the New Mexico Deaf and Hard of Hearing Education Task Force
- The state program managers of the Family Infant Toddler (FIT) Program and Children’s Medical Services (CMS) reviewed the MOU and provided feedback
- The MOU as printed below is in draft form pending legal programmatic review and final approval by each agency
- Designated representatives from the agencies involved will meet regularly to review and communicate results of the MOU to the New Mexico Deaf and Hard of Hearing Education Task Force (or whatever entity is established for such purpose) within 6 months after the completion of this document

DRAFT
 August 27, 2003
 MEMORANDUM OF UNDERSTANDING
 CONCERNING
 SERVICES TO CHILDREN WHO ARE DEAF OR HARD OF HEARING

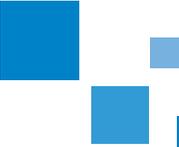
 NEW MEXICO SCHOOL FOR THE DEAF
 NEW MEXICO STATE DEPARTMENT OF EDUCATION
 NEW MEXICO DEPARTMENT OF HEALTH

This Memorandum of Understanding is made and entered into among the New Mexico School for the Deaf hereinafter referred to as the “NMSD,” the State Department of Education, hereinafter referred to as the “SDE,” and the New Mexico Department of Health, hereinafter referred to as the “DOH.”

WHEREAS, the New Mexico Deaf and Hard of Hearing Education Task Force has identified recommendations in its report of August, 2003 to address serious needs in the education of the deaf and hard of hearing;

WHEREAS, it is the recommendation of the New Mexico Deaf and Hard of Hearing Education Task Force that the State implement a state-wide public education system for children who are deaf and hard of hearing that:

- A) Is based on a detailed communication- and language-driven paradigm, which will serve as a broad template for all programs in New Mexico,
- B) Takes into account a student’s need for access to age, language and cognitive peers and communication and language proficient staff,
- C) Uses clearly defined quality indicators to support educational excellence, as listed in the Task Force Final Report,
- D) Develops and employs qualified, communication and language proficient staff, including administrators, interpreters, speech therapists, ASL instructors, technological support staff and others who fully understand and are trained in and licensed to work with children who are deaf or hard of hearing,



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- E) Has mechanisms to assure quality programs throughout the state, and to create and oversee implementation of additional program standards and program monitoring,
- F) Has mechanisms to collect needed data,
- G) Has mechanisms to support recruitment of qualified personnel,
- H) Has state-wide support/outreach programs providing parents with information, support, advocacy, training and linkage to all relevant organizations,
- I) Builds and or enhances linkages between relevant schools, organizations, state departments, universities and colleges and other institutions involved with children and youth who are deaf or hard of hearing.
- J) Implements state-wide programs for in-service, information-sharing, workshops, and other support services for staff,
- K) Includes a well-defined early childhood program with such linkage with other institutions and governmental agencies to ensure the earliest possible identification of a hearing loss, provision of information and services for families regarding the earliest possible development of communication for the child and coordination between educational, social service, medical and other institutions to ensure the cognitive and linguistic development of children who are deaf or hard of hearing,
- L) Includes other necessary supports and components, e.g. vocational, counseling, transition, etc. specifically geared for children and youth who are deaf or hard of hearing,
- M) Is fully available to all racial and ethnic groups in New Mexico including but not limited to Hispanic, Native Americans, Asian Americans and African Americans,
- N) Is based on clear, authoritative statutory edicts that ensure legal and fiscal support for a communication- and language-driven educational delivery system in New Mexico.

WHEREAS, NMSD is established under the constitution of the state of New Mexico to provide educational services to children who are deaf and hard of hearing;

WHEREAS, the State of New Mexico participates in the Individuals with Disabilities Education Act, hereinafter referred to as the “Act”;

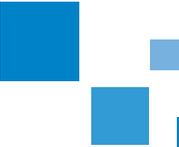
WHEREAS, the SDE is responsible for the implementation of Part B under the Act and ensuring that a Free Appropriate Public Education (FAPE) is available to all eligible children with disabilities age three years through twenty-one years;

WHEREAS, the DOH is the lead agency for implementing Part C under the Act and ensuring access to early intervention services through the Family Infant Toddler (FIT) Program for all eligible children (birth to three) and their families;

WHEREAS, NMSD provides early intervention, preschool and school age services for children who are deaf or hard of hearing and their families in accordance with the Act and state regulations for state supported schools;

WHEREAS, NMSD provides outreach services in collaboration with and to Local Education Agencies (LEA) to support the LEA's implementation of Free Appropriate Public Education (FAPE) for children who are deaf or hard of hearing enrolled in their schools;

WHEREAS, DOH has lead responsibility in New Mexico for administration of the Medicaid Developmental Disabilities Home and Community Based Waiver and the Children's Medical Services Newborn Hearing Screening Program;



Toward Brighter Futures

WHEREAS, the federal regulations for Part B, “Assistance to States for the Education of Children with Disabilities,” 34 CFR Part 300, Final Regulations dated March 12, 1999, require in section 300.142:

Methods of Ensuring Services:

“The Chief Executive Officer or designee must ensure that an interagency agreement or other mechanism for interagency coordination is in effect between each noneducational public agency ...and the SEA in order to ensure FAPE (Free Appropriate Public Education) are provided. The agreement or mechanism must include the following:

- 1. Agency Financial Responsibility*
- 2. Conditions and terms of reimbursement*
- 3. Procedure for resolution of interagency disputes*
- 4. Coordination of service procedures*

NOW, THEREFORE, the NMSD, SDE, and DOH in consideration of the mutual covenants and agreements herein contained, do hereby agree to the purpose, terms, and conditions of this Memorandum of Understanding.

I. DEFINITIONS

Annual Resource Allotment (ARA) - means the designated annual funding for specific services, available to a child allocated to the Developmental Disabilities Waiver. Under certain conditions an exception to the ARA may be made to pay for additional therapy services. Environmental Accessibility Adaptation services are funded outside the child’s ARA.

Case Manager (CMS) - means a Children’s Medical Services Social Worker charged with assisting families to access follow up services as part of the newborn hearing screening program.

Case Manager (DD Waiver) - means the assigned employee/subcontractor from an approved Medicaid Case Management agency selected by the parent/individual to assist with service planning, provision and coordination of DD Waiver services.

Clearinghouse - means a central agency for the collection, source, and dissemination of information related to the education of children who are deaf or hard of hearing.

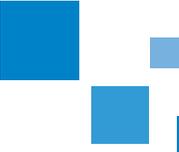
Communication- and Language-Driven Educational System - means development of regulations and policies that will assure appropriate and ongoing communication assessment, development and access for every deaf or hard of hearing child at his/her respective school/educational program.

Deaf and Hard of Hearing Children’s Bill of Rights - means a document passed by the New Mexico Legislature as a law to ensure that deaf and hard of hearing children’s unique communication, language and educational needs are fully and fairly addressed.

Developmental Disabilities (DD) Waiver - means the Home and Community Based Medicaid Waiver Program administered by the Department of Health to provide community based services and supports to individuals who are citizens of the United States, reside in New Mexico and have a developmental disability with mental retardation or a specific related condition.

Early Intervention Provider - means an organization or individual that provides any service(s) covered under state regulations, meets the requirements established for early intervention services, and has either been certified as a provider of early intervention services by the Department of Health or provides services through an intra-agency or inter-agency agreement with that Department.

Early Childhood Consultant (NMSD) - means an early childhood specialist with expertise in one or more areas of education of deaf or hard of hearing children and youth, hired by the New Mexico School for the Deaf to provide technical assistance



Toward Brighter Futures

and consultation to DOH FIT programs as described in a Joint Powers Agreement between NMSD and DOH and to Local Educational Agencies as described in this MOU.

Early Intervention Services (Part C) - means any or all services that are designed to meet the developmental needs of each eligible child and the needs of the family related to enhancing the child's development. Early intervention services address one or more of the following areas of development: cognitive, physical, communication, social or emotional, and adaptive. Early intervention services include: assistive technology, audiological services, developmental services (special instruction), family training, counseling and home visits, health services, medical services for diagnostic or evaluation purposes, nursing services, nutrition services, occupational therapy, physical therapy, psychological services, respite services, service coordination, social work services, speech and language pathology services, transportation and related services, and vision services.

Education Administrator at the State Department of Education - means an employee of the New Mexico State Department of Education who plans, directs, coordinates and evaluates educational activities of pre-k, elementary, secondary, and post secondary level schools.

Eligible Child (NMSD Outreach Services, Parent Infant/Child) - means a child birth to 6 years of age who resides in the state and has been evaluated by an audiologist and determined to be deaf or hard of hearing.

Eligible Child (NMSD Outreach Services, School Age) - means a child 3-21 years of age who resides in the state, is attending a public school, Headstart, or state supported school program and has been evaluated by an audiologist and determined to be deaf or hard of hearing.

Eligible Child (NMSD School Services) - means a child 2-21 years of age who resides in the state who has a diagnosed hearing loss, who meets the state criteria for early intervention or special education services and whose placement has been determined by the IFSP/IEP team to be NMSD.

Eligible Child (Part B - Preschool Special Education and Related Services) - means any child ages 2 (who will turn three within the school year), 3, 4 or 5 who resides in the state, who is determined to be a child with a disability and meets the Part B eligibility criteria for one of the 14 areas of eligibility inclusive of "Developmental Delay."

Eligible Child (Part B - Special Education Services) - means any child 3 through 21 years of age who resides in the state and is a child with a disability as defined in the Part B regulations [at 34 CFR Sec. 300.7] and the implementing state regulations [at 6.31.2.7 NMAC].

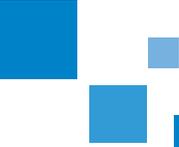
Eligible Child (Part C - Early Intervention Services) - means any child birth to three years of age who resides in the state and meets the criteria within state regulations for "Developmental Delay," "Established Condition" or "At Risk for Developmental Delay due to biological/medical or environmental factors." Families whose child turns three in the school year may choose to have their child transition at the beginning of that school year or remain in early intervention until the beginning of the next school year.

Eligible Child (DD Waiver) - means a child birth through 22 years of age who has been allocated to the DD Waiver Program and who meets the medical and financial criteria for services through a Home and Community Based Waiver Program.

Eligible Child (CMS Newborn Hearing Screening/Specialized Case Management) - means any child born in the state of New Mexico who fails an initial newborn hearing screening and is in need of follow-up case management to access re-screening, evaluation and/or connection to services.

Evaluation (for NMSD School Services) - means the process outlined under IDEA Part C and Part B regulations for determination of eligibility and includes the IEP/IFSP team determination that hearing loss is the primary impacting condition on education, language and communication and overall development and that NMSD is the most appropriate environment to provide educational services and supports to meet the student's goals and objectives.

Evaluation (for Part C - Early Intervention Services) - means the process through which a child's eligibility for early intervention services is determined. It involves a review of pertinent records related to the child's current health status and medical history,



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a determination of strengths, needs, quality of performance, and level of functioning of the child in each developmental area, and an explanation of how the status in each of the developmental areas affects the child's overall functioning. A written report summarizing findings completes the evaluation.

Evaluation (for Part B - Special Education and Related Services) - means the process through which a child is determined to be a child with a disability and eligible for special education and related services. This involves review of current information about the child provided by the parents, teachers, early interventionists, related services personnel, and other individuals knowledgeable about the child's abilities and present levels of performance. This may include, but by no means is limited to, formal assessments of the child's functional abilities in each developmental domain. A written report summarizing findings completes the evaluation.

FAPE (Part B) - the term Free Appropriate Public Education or FAPE means special education and related services that a) are provided at public expense, under public supervision and direction, and without charge; b) meet the standards of the SEA including the requirements of 34 CFR Part 300; c) include preschool, elementary school, or secondary school education in the state; and d) are provided in conformity with an individualized education program (IEP) that meets the requirements of 34 CFR Part 300.340-300.350.

Individuals with Disabilities Education Act (IDEA) - means a federal law [20 USC Secs. 1400-ff.] that provides funding and program requirements for services to eligible children. Part C of the IDEA refers to The Early Intervention Program for Infants and Toddlers with Disabilities. Part B of the IDEA provides Assistance to States for the Education of Children with Disabilities ages 5 through 21.

ICC - means the Family Infant Toddler Interagency Coordinating Council appointed by the Governor to advise and assist the DOH in accordance with IDEA Part C regarding the implementation of early intervention services.

IDEA Advisory Panel - means the formal body established by SDE in accordance with IDEA Part B to advise the SDE of unmet needs in the education of children with disabilities and to recommend regulations, policies and actions regarding the implementation of the IDEA and the coordination of services for children with disabilities in the state.

Individualized Education Program (IEP) - means a written educational plan for a child with a disability that is developed, reviewed and revised in a meeting in accordance with requirements of IDEA, Part B.

Individualized Family Service Plan (IFSP) - means the written plan for providing early intervention services to an eligible child and the child's family. The plan must be developed jointly by the family and appropriate qualified personnel involved in the provision of early intervention services and include the identification of supports and services necessary to enhance the family's capacity to meet the developmental needs of the eligible infant or toddler. The plan must be developed in accordance with the requirements of IDEA, Part C.

Individual Service Plan (ISP) - means the written plan for providing services under the DD Waiver. The plan is developed by an interdisciplinary team (IDT), including the parent/individual, the DD Waiver case manager and service providers, in accordance with State of NM ISP Regulations (7NMAC 26.5) and DOH policy.

Interagency Agreement - means a document signed by authorized representatives of at least two agencies outlining mutually agreed upon responsibilities to perform certain duties under specified conditions. Interagency agreements include Joint Powers Agreements, Memoranda of Understanding and Memoranda of Agreement.

Local Educational Agency (LEA) - means a local public school district which is subject to statutes, regulations and policies administered by the State Department of Education. Part B of the IDEA requires that state agencies which desire to receive Part B funds must meet the same eligibility conditions that apply to LEAs [34 CFR Sec. 300.194(b)].

Least Restrictive Environment (LRE) - means the educational setting in which an eligible child under Part B participates in age-appropriate regular classes and activities with children who are non-disabled to the maximum extent that is appropriate to meet the child's individual educational needs. Part B provides that special classes, separate schooling or other removal of eligible children from the regular educational environment may occur only if the nature or severity of a child's disability is

such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.

LRE for Students who are Deaf or Hard of Hearing (as per U.S. Office of Special Education Programs Guidance) - means placement determination is considered within the context of FAPE in a setting that meets the communication and related needs of a child who is deaf or hard of hearing as described in “Deaf Students Education Services Policy Guidance” (U.S. Department of Education, 1992). A full range of alternative placements (34 CFR 300.551) must be available to the extent necessary to implement each child’s IEP.

Natural Environment - means supports and services in everyday routines, activities, and places. Best practice components as defined by the New Mexico FIT Technical Assistance Document are: Family centered support and services; Support of a child’s participation in everyday routines, activities, and places; Expanding and enhancing natural learning opportunities and the integration of supports and services.

New Mexico Deaf and Hard of Hearing Education Task Force - means a statewide task force that convened for the first time in December 2001. It is comprised of a cross section of educators, professionals, parents and consumers representing different parts of New Mexico to identify systemic changes needed to raise the quality of communication- and language-driven education received by children who are deaf or hard of hearing in the state.

Outreach (NMSD) - means statewide outreach programs provided by the New Mexico School for the Deaf. These include: an early intervention program; satellite preschool programs; technical assistance to school districts; early intervention agencies and Headstart; student evaluations; educational conferences; materials resource center and clearinghouse of information.

Outreach Specialist (NMSD) - means an educational specialist with expertise in specific areas of the education of children or youth who are deaf or hard of hearing, hired by NMSD to provide outreach services to Local Educational Agencies, Headstart, and other public school programs and families as described in this MOU.

Parent - means a natural or adoptive parent of a child; a guardian; a person acting in the place of a parent (such as a grandparent or stepparent with whom the child lives or a person who is legally responsible for the child’s welfare); or a surrogate parent who has been assigned in accordance with state regulations. A foster parent may act as a parent under the Act if the natural parents’ authority to make the decisions required of parents has been terminated under state law; and the foster parent has an ongoing, long-term parental relationship with the child; is willing to make decisions required of parents under the Act; and has no interest that would conflict with the interests of the child.

School Year - means the dates established by each district/LEA for its schools to be in session during a given academic year.

Service Coordination (Part C) - means services and activities performed by a designated individual to assist and enable the families of children from birth through three years of age to access and receive early intervention services.

Service Coordinator (Part C) - means the person responsible for the coordination of all services and supports listed on the IFSP and ensuring the delivery of services in a timely manner. The service coordinator facilitates periodic reviews of the IFSP and ensures that a transition plan is developed at the appropriate time. The service coordinator facilitates the transition process to ensure a smooth and effective transition.

State Supported Schools - means a state supported public program confirmed as such by the State Constitution. State supported schools are State Universities, the CYFD Programs, the New Mexico Military Institute, the New Mexico School for the Visually Handicapped, and the New Mexico School for the Deaf. Part B of the IDEA requires that the educational programs of state-supported schools which serve eligible children be subject to the general supervision of the SDE and meet the SDE’s standards [34 CFR Sec. 300.600] and that state agencies which desire to receive Part B funds must meet the same eligibility conditions that apply to LEAs [34 CFR Sec. 300.194(b)].

Step*Hi - means the early intervention, state-wide Parent-Infant, Parent-Child Program of the New Mexico School for the Deaf.

II. PURPOSE OF AGREEMENT

The purpose of this agreement is to ensure the smooth and effective service delivery to children and youth who are deaf or hard of hearing who are eligible for services from multiple funding sources. This agreement is articulated to ensure a seamless system of services between agencies for the benefit of children and families residing in the State of New Mexico.

III. TERMS OF AGREEMENT

The parties shall work to ensure smooth and effective service delivery for children and families receiving or eligible for NMSD services, SDE Special Education (IDEA Part B), DOH Medicaid DD waiver services, DOH Early Intervention (IDEA Part C) and/or DOH CMS services. The parties entering into this agreement shall collaborate to ensure an effective system of service delivery for children and families. The parties agree to the following:

REGULATIONS, POLICIES, PROCEDURES and STRATEGIES

- NMSD, SDE and DOH shall establish and implement respective policies, procedures and strategies that ensure the smooth and effective service delivery to children and families participating in NMSD services, Medicaid Developmental Disabilities Home and Community Based Waiver program, IDEA Part C early intervention program, IDEA Part B Special Education program and/or DOH CMS services.
- In order to ensure coordination and understanding among departments and agencies, all parties shall collaborate on the formulation of policies and procedures for services which overlap and where collaboration is determined to enhance service delivery.

TABLE ONE - SERVICE RESPONSIBILITIES – Signatories acknowledge the following service responsibilities:

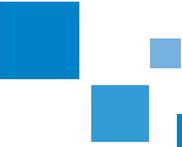
Agency Program	NMSD School	NMSD Preschool/ Kindergarten	NMSD Outreach – Step*Hi	NMSD Outreach to Schools	SDE IDEA Part B and 619	DOH DD Waiver	DOH IDEA Part C	DOH CMS
Age of Eligibility	Ages 5-21	Ages 2-5	Birth to age 6	Ages 3-21	Ages 3-21	No age criteria	Birth to age 3	Birth to age 19
Planning Document	IEP	IFSP/IEP	IFSP (0-3) or Services Plan (3-6)	Outreach Plan	IEP	ISP	IFSP	Plan of care and or IFSP for (0-3)
Authority	Charge from NM Constitution	Charge from NM Constitution	Designated Funding from Legislature	Designated Funding from Legislature	IDEA Part B, 619, State statutes—standards and regulations for the provision of special education in the public schools and in all institutions wholly or partly supported by the state	State statute; Medicaid Regulations	Federal and State statute and regulation	State statute and funding for Newborn Hearing Screening Program
Eligibility	Diagnosed hearing loss and IEP team decision for placement	Diagnosed hearing loss and IFSP/IEP team decisions for placement	Diagnosed hearing loss	Public Schools which have students who are diagnosed with a hearing loss	One or more IDEA-recognized disabilities or developmental delay (ages 3-9) plus need for special education and related services	Developmental Disability and Mental Retardation or a Specific Related Condition	Infants/toddlers with or at risk for Developmental Delay and their families	Newborns who “refer” on hospital screening, are at risk for hearing loss or are discharged without a screening
Services	Comprehensive educational program with all related services in Santa Fe, Albuquerque and Las Cruces; Residential services for children 6-21 years of age who qualify	Comprehensive educational program with all related services in Santa Fe, Albuquerque and Las Cruces	Home based family centered developmental services statewide; Deaf Role Model Program; Consultation to FIT programs; Otitis Media workshops; Materials Lending Library	Student observation and recommendations for classroom modifications; Training for staff; Information on IEP special considerations for children who are deaf or hard of hearing; Information clearinghouse; Educational Conferences	Free Appropriate Public Education (FAPE) – special education and related services as needed in the least restrictive environment that is appropriate to meet each child’s individual educational needs as determined by multidisciplinary IEP team that includes the parents; Conducts general supervisory activities including monitoring of school districts to ensure compliance with the IDEA and overseeing grievance systems.	Supported Employment; Community Access (under age 18); Community Membership (over age 18); Therapy services (OT, PT, SLP, BT); Respite; Personal Care; Private Duty Nursing	Assistive technology, audiological services, developmental services (special instruction), family training, counseling and home visits, health services, medical services for diagnostic or evaluation purposes, nursing services, nutrition services, occupational therapy, physical therapy, psychological services, respite services, service coordination, social work services, speech language pathology services, transportation and related services, and vision services	Newborn Hearing Screening Case Management Payment for audiological evaluation services under certain circumstances

FINANCIAL RESPONSIBILITIES

- NMSD is responsible for providing outreach services to children and youth who are deaf or hard of hearing and educational services to eligible children who are deaf or hard of hearing placed in the NMSD school programs.
- State Department of Education is responsible for supervising public schools and state-supported educational programs to ensure that FAPE is provided to each eligible child residing in the state beginning no later than the child's third birthday and that an IFSP/IEP is in effect for the child no later than the child's third birthday, in accordance with IDEA.
- SDE shall ensure that LEAs assume financial responsibility for serving children who have not reached the age of three years and who are served by the LEAs.
- DOH is responsible to provide DD waiver services to each child allocated to the DD Waiver program in accordance with the child's ISP and within the child's Annual Resource Allotment (ARA).
- DOH is responsible for ensuring provision of early intervention services to children ages Birth – 3 under Part C of IDEA.
- State Department of Education and the Department of Health will facilitate Early Intervention and Local Educational Agency access to NMSD resources.

PROGRAMMATIC/SYSTEM DEVELOPMENT RESPONSIBILITIES

- Child Identification: SDE and DOH are responsible for child find including Newborn Hearing Screening under IDEA Parts C and B. NMSD will support child find efforts by providing resources, product development and consultation.
- Information Clearinghouse and Resource Center: NMSD will function as an information clearinghouse available to parents, students, educators and other consumers. The clearinghouse functions will include but not be limited to:
 - o Gathering and providing statistical data
 - o Researching and sharing program information
 - o Maintaining and providing a list of resource and support service contacts (including early intervention, language and communication development)
 - o Contact numbers for state, federal and local agencies that provide support services for children and youth (birth-age 22) who are deaf or hard of hearing and their families
 - o Model demonstration programs
 - o Consultation by outreach personnel
- Communication- and Language-Driven Educational System: NMSD will collaborate with SDE to promulgate regulations and establish policy to assure that communication and language assessment, development and access are included as part of the educational program for all deaf and hard of hearing students. NMSD will collaborate with DOH to develop best practice guidelines for early intervention services to include communication and language assessment, development and access.



Toward Brighter Futures

- Personnel Development: NMSD, SDE and DOH will take steps including but not limited to:
 - Assessing current status of staffing (statewide) for deaf and hard of hearing students and children receiving early intervention services
 - Working with in-state institutions of higher education including: University of New Mexico, New Mexico State University, and national leaders in the field such as Gallaudet University and California State University at Northridge to develop effective staff training and technical assistance programs and recruitment plans
 - Working with New Mexico Deaf and Hard of Hearing Education Task Force, or whatever entity is established for such purpose, to develop strategies for recruitment and retention of qualified professionals
- Early Intervention: NMSD, SDE and DOH will continue to partner as per existing interagency agreements and established protocols to promote early access and provide appropriate early intervention services to infants and toddlers who are deaf or hard of hearing and their families. In addition NMSD, SDE and DOH will partner to implement activities as detailed in Table Two of this agreement.
- Assessment of Student Progress: NMSD, SDE, and DOH will collaborate to ensure that early and ongoing appropriate assessment of the communication, language and overall needs of children and youth who are deaf or hard of hearing is provided and that students are making sufficient progress.
- Career Transition: NMSD, SDE and DOH, through the Statewide Transition Council, will partner with the Division of Vocational Rehabilitation, community service agencies, and post secondary institutions to ensure appropriate opportunities for work and or post secondary education for deaf and hard of hearing children in New Mexico.
- Implementation of other Task Force Recommendations: NMSD, SDE and DOH will collaborate to implement other recommendations of the task force as described in the introduction of this agreement and the Task Force report which is appended to this MOU (See Tables Two and Three for examples of strategies to be implemented).

TABLE TWO – Early Intervention (Birth –3); Strategies and Time Lines Linked to Task Force Recommendations

Strategy Linked to Recommendation ()	NMSD Role	SDE Role	DOH Role FIT and CMS	Other
<p>1) Develop a Technical Assistance document which will promote best practice that is communication- and language- driven and will serve as a broad template for early intervention programs in N.M. (Supports Task Force Rec. - 4)</p> <p>By: June 2005</p>	<p>Technical Assistance for creation of document and training (lead)</p>	<p>Technical assistance for creation of document and training; Distribution; Policy guidance to support transition</p>	<p>Technical assistance for creation of document and training; Distribution to appropriate early intervention programs for technical assistance</p>	
<p>2) Conduct an annual review of areas for alignment of resources within programs at the Department of Health and NMSD specifically but not limited to the DOH FIT program and Children’s Medical Services to strategize more effective use of resources for young children. (Supports Task Force Rec.- All)</p> <p>By: January, 2004 for initial planning and on-going</p>	<p>Participate in annual review process of alignment of resources</p>	<p>Participate in annual review process of alignment of resources</p>	<p>Participate in annual review process of alignment of resources; Facilitate ICC role in this process</p>	<p>ICC, Early Intervention Agencies, Parents, BIA</p>
<p>3) Conduct an annual review of the Newborn Hearing Screening Program from screen to intervention and modify strategies to identify gaps in effectiveness and system development. Jointly identify strategies to address gaps. (Supports Task Force Rec. - 9)</p> <p>By: Fall 2003 and on-going</p>	<p>Partner in annual review process and contribute resources to effect change; Regularly share information with DOH</p>		<p>Partner in annual review process and contribute resources to effect change; Regularly share information with NMSD</p>	
<p>4) Explore support for hearing screening at EI agencies, audiological diagnostic evaluations and funding mechanisms for hearing aid acquisition. (Supports Task Force Rec. - 9)</p> <p>By: On-going</p>	<p>Use NMSD EC outreach to collect data; Collaborate with the CDD (Center for Development and Disability) and FIT to explore resources</p>		<p>Collaborate with NMSD to explore resources</p>	
<p>5) Maintain and conduct annual review of JPA between NMSD EC and DOH FIT with on-going provision of the home based Step*Hi program, EC consultation for hearing screening at the EI agency, Otitis Media and general consultation as outlined in agreed protocols and procedures. (Supports Task Force Rec. - 9)</p> <p>By: Fall 2003 and on-going</p>	<p>Partner in annual review of the existing JPA; Partner with DOH FIT and CMS to expand the current JPA to include CMS</p>		<p>Participate in annual review of existing JPA; Partner with NMSD and CMS FIT to expand the current JPA to include CMS</p>	
<p>6) Analyze existing practice and support improvement of implementation of best practice. See also Strategy and Role #1. (Supports Task Force Rec. - 4,9)</p> <p>By: Spring 2006</p>	<p>Analyze data related to consultative role through NMSD EI providers; Participate in data collection and reporting as per the JPA; Collaborate on a strategy for program analysis</p>		<p>Analyze data. Collaborate with NMSD on a strategy for program analysis</p>	

Table Two – Early Intervention (Birth-3) continued

Strategy Linked to Recommendation ()	NMSD Role	SDE Role	DOH Role FIT and CMS	Other
<p>7) Increase the capacity of the state system to provide qualified personnel. (Supports Task Force Rec. – 5,9) By: Fall 2004 and on-going</p>	<p>Explore mechanisms for providing core training on an annual basis to early intervention providers; Identify competences for staff working with children who are deaf/hh; Develop and provide training related to best practice</p>		<p>Collaborate with NMSD in providing the Early Childhood strand at Community and School Awareness for the Deaf and Hard of Hearing (CASA) conferences; Support participation at conferences for CMS providers and FIT providers; Develop and provide training related to best practice</p>	
<p>8) Collect information from early intervention programs including ECEP and NMSD on status of *comprehensiveness, appropriateness and applicability of developmental evaluations for children who are deaf/hard of hearing. (Supports TF Rec.-1,2,3,9) *Especially in regards to language and communication. By: January 2004 and on-going</p>	<p>Provide information and technical assistance on evaluation protocol and methodology to Department of Health or their designee; Participate in ECEP and EI evaluations; Provide comprehensive developmental evaluations in the Alb. area</p>	<p>Participate in next steps discussion</p>	<p>Gather information from NMSD and EI programs regarding comprehensive developmental evaluation practice and meet with MOU partners to plan next steps</p>	<p>EI agencies provide information on developmental evaluation practice to the Department of Health</p>

TABLE THREE – School Age Strategies for 2003 Linked to Task Force Recommendations

Strategy Linked to Recommendation ()	NMSD Role	SDE Role	DOH Role	Other
<p>1) Develop a best practice document and resources that are communication- and language-driven and contains linkages to the National Agenda for the Education of Deaf and Hard of Hearing Children, which will serve as a broad template for school age (3-22) programs in NM. (Supports Task Force Rec. – 1, 2, 3, 4)</p> <p>By: June 2005</p>	<p>Technical Assistance for creation of document and training (lead)</p>	<p>Partnering and technical assistance for creation of document and training; Distribution and policy guidance</p>	<p>Consultation on creation of document and training; Distribution to FIT programs for transition info. and to appropriate DD Waiver providers</p>	
<p>2) Increase availability of opportunities for exposure and interaction with a critical mass for children and their parents. (Supports Task Force Rec. – 2, 3, 10)</p> <p>By: On-going</p>	<p>NMSD sponsored summer camp for students; Student visits from various LEA to NMSD; Resource information to schools on state or national resources for summer camps; Liaison between LEA, family and NMSD; Promote collaborative activities to support critical mass</p>	<p>Inform students and their families of availability</p>	<p>Inform students and their families of availability</p>	<p>LEA promotion and support for travel and per diem costs; LEA promotion of collaborative activities which provide critical mass</p>
<p>3) Develop and pursue legislation to establish a Deaf Children's Bill of Rights in New Mexico. (Supports Task Force Rec. – B1)</p> <p>By: October, 2003</p>	<p>NMSD and a committee of the Deaf Education Task Force and/or other stakeholders draft and pursue legislative support</p>	<p>Provide consultation and other technical assistance</p>	<p>Provide consultation and other technical assistance</p>	<p>Advocates (COPD; Commission for the Deaf; NAD) provide consultation and other technical assistance</p>

TABLE THREE – School Age Strategies for 2003 Linked to Task Force Recommendations (continued)

Strategy Linked to Recommendation ()	NMSD Role	SDE Role	DOH Role	Other
<p>4) Provide support for local education agencies to include: training, workshops, information on the services/resources available statewide through NMSD, SDE, DOH, LEAs, IHEs (Supports Task Force Rec. – 1,2,3,4,7,8,11,12,13)</p> <p>By: Ongoing</p>	<p>Expand and formalize technical assistance to LEA programs 3-21 including the following areas: Program Assessment; Student Support; Transition; Program Support and Development; IEP Process (June, 2004)</p> <p>State-wide conferences and educational forums (CASA; Silent Week; Family Week)</p> <p>Establishment of a resource center and clearinghouse including collection and maintenance of local and national data</p> <p>Identify model programs within NMSD and other school programs for training purposes (June 2005)</p> <p>Training on best practice document (July 2005 and on-going)</p>	<p>Guidance on accessing resources from NMSD, SDE, DOH, RECs, LEAs and other resources</p> <p>Funding for support of conferences and State Level recommendation to parents and educators to attend the conferences</p>	<p>Policy guidance on accessing NMSD resources for transition; Guidance on accessing NMSD, SDE, and DOH resources</p> <p>Funding for support of conferences and State Level recommendation to FIT Program staff and families to attend the conferences</p> <p>Linkage with CDD resource center</p>	<p>IHEs and LEAs to inform of their respective resources and services available</p>

TABLE THREE – School Age Strategies for 2003 Linked to Task Force Recommendations (continued)

Strategy Linked to Recommendation ()	NMSD Role	SDE Role	DOH Role	Other
<p>5) Use existing and create new mechanisms to assure quality programs throughout the state and implementation of program standards. See also Strategy and Role #1. (Supports Task Force Rec. – 4, 6, 7)</p> <p>By: On-going</p>	<p>Development of Program Assessment; Procedures/ Guidelines and a plan for use at the LEA level utilizing resources from NMSD and local school districts</p> <p>Creation of Assessment Tool (January 2003)</p> <p>Pilot use of the tool (February 2003)</p> <p>Dissemination (On-going)</p> <p>Develop a list of national resources which can be accessed per program discretion for support in program review</p> <p>See function of resource center and clearinghouse</p>	<p>Discuss pilot outcomes with NMSD and consider use of this methodology as a program improvement strategy;</p> <p>Share information with Special Education Directors (Fall 2004)</p> <p>Continue to investigate child specific complaints</p> <p>Continue focused monitoring of LEAs for compliance with IDEA</p> <p>Identification and collection of data to support planning and program improvement</p>	<p>Continue focused monitoring of FIT programs for compliance with IDEA</p> <p>Provision of DOH specific data as requested</p>	

TABLE THREE – School Age Strategies for 2003 Linked to Task Force Recommendations (continued)

Strategy Linked to Recommendation ()	NMSD Role	SDE Role	DOH Role	Other
<p>6) Provide state-wide outreach to families including information, support, advocacy and training. (Supports Task Force Rec. - 10)</p> <p>By: On-going</p>	<p>Provide linkages to established parent groups in/out of state including Hands and Voices and PRO</p> <p>Identify funding to expand organized parent support, information sharing, and advocacy state-wide. Develop collaborative RFP for this purpose (Fall, 2003)</p> <p>Expand and formalize technical assistance and educational program supports to/for parents and families</p> <p>State-wide conferences and educational forums (CASA; Silent Week; Family Week)</p>	<p>Provide linkages to established parent groups in/out of state including Hands and Voices and PRO</p> <p>Identify funding to expand organized parent support, information sharing, and advocacy state-wide. Develop collaborative RFP for this purpose (Fall, 2003)</p> <p>Funding to support students and/or parents to attend conferences; State Level Recommendation and information to LEA staff to attend the conferences</p>	<p>Provide linkages to established parent groups in/out of state including Hands and Voices and PRO</p> <p>Identify funding to expand organized parent support, information sharing, and advocacy state-wide. Develop collaborative RFP for this purpose (Fall, 2003)</p> <p>Inform families of the opportunity to use ARA (Annual Resource Allotment) Funding to support their participation in these activities;</p> <p>Recommendation and information to DOH Providers to attend the conferences</p>	

TABLE THREE – School Age Strategies for 2003 Linked to Task Force Recommendations (continued)

Strategy Linked to Recommendation ()	NMSD Role	SDE Role	DOH Role	Other
<p>7) Development of guidance statements and training related to LRE, Natural Environments, Special Considerations related to language and communication development, access, and assessment and continuum of placement options for Deaf/HH children. (Supports Task Force Rec. – 1,2,3,4)</p> <p>By: June, 2005</p>	<p>Draft statements in collaboration with stakeholders such as LEAs for consideration by the SDE; Jointly provide training</p> <p>Creation of written NMSD enrollment process information for the public (August 2003)</p> <p>Create strategies for teaming with SDE, LEAs and DOH for using resources to meet the needs of “hard to place” students (Fall 2003)</p>	<p>Team with NMSD on drafting statements; dissemination of policy statements</p> <p>Create strategies for teaming with NMSD and LEAs for using resources to meet the needs of “hard to place” students</p>	<p>Team with NMSD on drafting statements; dissemination of policy statements</p> <p>Create strategies for teaming with NMSD and FIT providers for using resources to meet the needs of “hard to place” students</p>	
<p>8) Dissemination of Final Report. (Supports Task Force Rec. – Section 4B)</p> <p>By: Fall, 2003</p>	<p>Support in dissemination to parents of children who are deaf or hard of hearing in the state; deaf related agencies, teacher training programs; Use existing conferences and meetings to share the report</p> <p>Identify parent and LEA leaders to assist with distribution</p>	<p>Support printing costs</p> <p>Support in dissemination to Special Education Directors and School Districts</p> <p>Use existing conferences and meetings to share the report</p> <p>Identify parent and LEA leaders to assist with distribution</p>	<p>Support printing costs</p> <p>Dissemination to selected DOH providers</p> <p>Use existing conferences and meetings to share the report</p> <p>Identify parent and LEA leaders to assist with distribution</p>	

TABLE THREE – School Age Strategies for 2003 Linked to Task Force Recommendations (continued)

Strategy Linked to Recommendation ()	NMSD Role	SDE Role	DOH Role	Other
<p>9) Increase the capacity of the state system to provide qualified personnel (Supports Task Force Rec. - 5)</p> <p>By: On-going</p>	<p>Team with universities to develop teacher training programs</p> <p>Accept student teachers and interns from universities</p> <p>Develop linkages with out of state universities and training programs for recruitment purposes</p> <p>Provide opportunities for LEAs to use NMSD programs and identify other model programs in the state to support networking, sharing of information and training resources</p> <p>Develop resource lists in the Resource Center/Clearinghouse</p>	<p>Continue to work with IHEs, Front Range Community College, the DOIT Center and others to increase training opportunities for New Mexican educators, interpreters and related service providers to better support students who are Deaf/HH</p> <p>Through the CSPD system, continue to recruit highly qualified staff to New Mexico</p>	<p>Provide technical consultation regarding developmental disabilities and individuals with dual diagnoses (hearing loss and mental retardation); Refer to qualified community resources for training and technical assistance</p>	<p>IHE - establish, coordinate and/or expand within existing programs</p>

TABLE THREE – School Age Strategies for 2003 Linked to Task Force Recommendations (continued)

Strategy Linked to Recommendation ()	NMSD Role	SDE Role	DOH Role	Other
<p>10) Establish strategies for oversight of implementation of the Task Force's recommendations including this MOU – this includes forming an advisory group of stakeholders in the education of Deaf/HH (an off-shoot of the Task Force) to review progress and provide feedback to NMSD, SDE, and DOH. (Supports Task Force Rec. – Section 4A, 4C)</p> <p>By: Fall, 2003</p>	<p>In collaboration with SDE and DOH, relative to attainment of recommendations, develop schedule and mechanism for the 3 agencies to: monitor and review progress; communicate progress to stakeholders and receive feedback (e.g. the advisory group and other stakeholders in New Mexico); revise strategies as necessary (lead)</p>	<p>In collaboration with NMSD and DOH, relative to attainment of recommendations, develop a schedule and mechanism for the 3 agencies to: monitor and review progress; communicate progress to stakeholders and receive feedback (e.g. the advisory group and other stakeholders in New Mexico); revise strategies as necessary</p>	<p>In collaboration with NMSD and SDE, relative to attainment of recommendations, develop a schedule and mechanism for the 3 agencies to: monitor and review progress; communicate progress to stakeholders and receive feedback (e.g. the advisory group and other stakeholders in New Mexico); revise strategies as necessary</p>	
<p>11) Explore and clarify support for audiological diagnostic evaluations and funding mechanisms for hearing aid acquisition. (Supports Task Force Rec. - 1)</p> <p>By: On-going</p>	<p>Use NMSD outreach to collect data; collaborate with the LEAs and Parent Advocacy Groups to explore resources</p>	<p>Collaborate with NMSD and others to explore resources</p>	<p>Collaborate with NMSD and others to explore resources</p>	
<p>12) Work with Public Educational programs including NMSD to obtain information on status of *comprehensiveness, appropriateness and applicability of evaluations for children/students who are deaf/hh. (Supports Task Force Rec. - 1)</p> <p>*Especially in regards to language/communication</p> <p>By: June 2004</p>	<p>Provide information and technical assistance on evaluation protocol and methodology to State Department of Education or their designee</p>	<p>Gather information from NMSD and LEAs regarding evaluation practice and meet with MOU partners to plan next steps</p>	<p>Participate in next steps discussion</p>	<p>LEAs provide information on evaluation practice to the State Department of Education</p>

FAMILY INVOLVEMENT

- All signatory parties shall collaborate on identifying and making available increased resources for parents and families to access training and support.
- All signatory parties shall honor the parent/guardian right to full disclosure of information in order to make informed decisions.
- Signatory parties shall ensure that parent participation is integral to the formulation of policies and procedures.
- Signatory parties shall ensure that parent participation is integral in the evaluation and continuous improvement efforts of the system.

TRAINING AND TECHNICAL ASSISTANCE

- The signatory agencies shall jointly provide and support training and technical assistance related to the implementation of this agreement and the strategies contained herein to parents, NMSD staff, SDE staff, DOH staff, public school personnel and early intervention providers.
- The signatory agencies shall establish mechanisms for funding parent participation in trainings and ongoing system development activities.

ACCOUNTABILITY

- NMSD, SDE and DOH will conduct program evaluation and monitoring activities within each agency's scope of authority and in accordance with the provisions of IDEA and state/agency requirements and protocols to support accountable service delivery and program improvement.
- NMSD, SDE and DOH shall respectively provide representation to the New Mexico Deaf and Hard of Hearing Education Task Force and the IDEA Panel and the ICC.
- Signatory agencies shall jointly support and provide representation to an interagency committee whose purpose is to enhance coordination and collaboration in the development of a seamless system of services.
- Signatory agencies shall demonstrate accountability through mutually defined performance outcomes.
- Signatory agencies shall establish, in collaboration, a systemic improvement plan based on information and data collected for system evaluation purposes, feedback from parents and input from providers/personnel. The activities of that plan where appropriate will be incorporated by mutual agreement into this MOU.

IV. Administering Agencies

The signatory agencies to this Memorandum of Understanding shall jointly administer this agreement and be responsible for timely review every two years.

V. Payment and Property

No payment or property will be exchanged between or among the signatories as a result of this Memorandum of Understanding, except as designated under specific agreements.

VI. Effective Date, Amendment, and Termination of Memorandum of Understanding

The Memorandum of Understanding shall be effective when signed by the respective agency heads as signatory parties. Evaluation and review of this Memorandum of Understanding shall be accomplished every two years by the signatories. Agreed upon changes shall be executed in writing by all signatories. This Memorandum of Understanding shall be ongoing and shall not be terminated unless a party gives forty-five (45) days advance written notice to the other parties of its intent to terminate its participation in the Memorandum of Understanding.

VII. Liability Provisions

Each party shall be solely responsible for fiscal or other sanctions, penalties, or fines occasioned as a result of its own violation or alleged violation of requirements applicable to performance of this Agreement. Each party shall be liable for its acts or failure to act in accordance with this Agreement, subject to the immunities and limitations of the New Mexico Tort Claims Act.

VII. Interagency Disputes

Interagency disputes regarding this agreement will be brought to an interagency review panel consisting of the NMSD Director of Early Childhood and Outreach, the SDE Director of Special Education Unit, and the DOH LTSD Community Programs Bureau Chief and/or the FIT Program Manager and the Program Manager for Children’s Medical Services, convened by NMSD for resolution. If not resolved at that level the dispute will be referred to the Office of Secretary or Superintendent in each affected agency for legal review and/or administrative action.

IN WITNESS WHEREOF, the DOH, SDE and NMSD have caused this Memorandum of Understanding to be executed.

Patricia Montoya, Secretary
NM Department of Health

Date

Secretary of Education
NM State Department of Education

Date

Ronald Stern, Superintendent
New Mexico School for the Deaf

Date

QUALITY INDICATORS FOR PROGRAMS THAT SERVE CHILDREN AND YOUTH WHO ARE DEAF OR HARD OF HEARING

The indicators include but are not limited to the following:

- Staff providing services are fluent in the language(s) and communication used by the child, as well as knowledgeable about the child’s cultural background.
- Provision of services are based on comprehensive evaluation/assessment performed by qualified staff.
- Staff providing services have training and/or expertise in pedagogy of education of children and youth who are deaf or hard of hearing.
- IEP includes documentation of discussion of the Special Considerations for Communication and Language as the basis for access to the general curriculum and as required by IDEA.
- IFSP includes documentation of discussion of the child’s communication and language strengths and needs as the basis for support of cognitive and social growth, access to developmentally appropriate activities and provision of early intervention.
- At every IEP/IFSP there is a person present who has expertise in early intervention or education of children and youth who are deaf or hard of hearing.
- Specialized support and related services are provided based on in-depth discussion of present level of performance, goals and objectives, as well as Special Considerations for communication and language.
- State standards and benchmarks are addressed for children and youth who are deaf or hard of hearing and curriculum is chosen and adapted as necessary to meet the strengths and needs of the child.
- Access to social interactions with peers and adults that is of the same quality as that of hearing peers is provided.
- Provision of individualized and appropriate technology for educational purposes (e.g., auditory trainers, visual alerting devices, captioning) is provided.
- Discussion of LRE for children and youth who are deaf or hard of hearing is based on the Deaf Students Education Services Policy Guidance from the U.S. Department of Education, the COED Report, the NDEP Statement of Principle, and the National Agenda.
- Parent training to ensure informed decision-making is provided.

HISTORIC CHANGES IN NEW MEXICO FOR CHILDREN AND YOUTH WHO ARE DEAF OR HARD OF HEARING

- 1887 - New Mexico School for the Deaf is founded.
- 1961 - The first class in Albuquerque Public Schools for children and youth who are deaf or hard of hearing opens at the elementary level.
- 1960's - The rubella outbreak creates critical mass of students in small communities across the state. NMSD opens satellite preschools in numerous rural communities.
- 1966 - The NMSD Albuquerque Preschool opens.
- 1974 -1978 - Classes for children and youth who are deaf or hard of hearing are added at the elementary, middle and high school levels at Albuquerque Public Schools.
- 1978 - "Deaf Interpreter Act of 1978" passes in the state legislature which establishes certification requirements for interpreters.
- 1983 - American Sign Language interpreter training programs are established at the University of New Mexico.
- 1983 - New Mexico accepts funding for Special Education under Public Law 94-142.
- 1983 - A private oral program opens in Albuquerque.
- 1983 - NMSD is given Legislative funding to establish a Parent Infant Program and replicate the SKI*HI Home Intervention Model.
- 1986 - Public Law 94-142 adds public school education programs for 3, 4, and 5 year olds.
- 1986 - Part H (Birth - 3) legislation is added to Public Law 94-142.
- 1987 - Decreased numbers of children and youth who are deaf or hard of hearing in rural communities and mandates for preschool services from the public schools results in smaller numbers of students at NMSD satellite preschool programs.
- 1987 - First child in New Mexico receives a cochlear implant.
- 1988 - "Deaf President Now" movement at Gallaudet impacts New Mexico's educational programs by setting a precedence for hiring teachers and administrators who are deaf or hard of hearing.
- 1991 - The Commission for the Deaf and Hard of Hearing is established as a result of years of advocacy work by parents and the community.
- 1992 - NMSD is given Legislative funding to establish an Educational Resource Center on Deafness.
- 1993 - American Sign Language Interpreter Training Program is established at Santa Fe Community College.
- 1993 - N.M. State Legislature passes the use of state general funds for children birth-3 and designates the Department of Health as lead state agency for a statewide coordinated system for early intervention services.
- 1997 - Reauthorization of IDEA includes language for Special Considerations for children and youth who are deaf or hard of hearing.
- 2000 - New Mexico passes Legislation to mandate Universal Newborn Screening.
- 2002 - There is increased emphasis by both the Federal and State Departments of Education on implementation of LRE.
- 2002 - A Deaf Education Task Force is initiated with multiple stakeholder membership.
- 2003 - A Memorandum of Understanding is developed among the New Mexico School for the Deaf, the State Department of Education and the Department of Health to respond to the Deaf Education Task Force recommendations.

MORE INFORMATION ABOUT THE TASK FORCE MEMBERS

Name	Geographic Responsibility	Role	Deaf/HH or Hearing	Ethnicity
Neva Byrd	Lovington	Special Education Director	Hearing	Caucasian
Brad Calvert	Aztec	Special Education Director	Hearing	Caucasian
Larry Combs	Artesia	Special Education Director	Hearing	Caucasian
Karen Courtney	Statewide	Executive Director of New Mexico Commission for Deaf/HH Persons	Hearing	Caucasian
Pat Emerick	Shiprock	Special Education Director	Hearing	American Indian
Rosemary Gallegos	New Mexico School for the Deaf - Statewide	Director Early Childhood Education and Outreach (NMSD)	Hearing	Hispanic
Josselyn Gober	Los Lunas	Parent	Hearing	Caucasian
Sam Howarth	State Department of Education – Special Education - Statewide	State Director of Special Education	Hearing	Caucasian
Lin Marksbury	Statewide	Executive Director of Community Outreach Programs for the Deaf	Hearing	Caucasian
Kathy Moseley	Albuquerque	Parent	Hearing	Caucasian
Steve Nover	New Mexico School for the Deaf – Nationwide	Researcher; Language Planner; Director of the Center of ASL/English Bilingual Education and Research (NMSD)	Deaf/HH	Caucasian
Ernesto Ortega	Statewide	President of the New Mexico Association of the Deaf	Deaf/HH	Hispanic
Glenda Rodrigues	Las Cruces	Low Incidence Coordinator (Las Cruces Public Schools)	Hearing	Hispanic
Ruth Rodriguez	Las Cruces	Parent; President of Concerned Parents of Deaf/HH	Hearing	Hispanic
Ralph Sedano	Statewide	Coordinator - Interpreter Program (Santa Fe Community College)	Deaf/HH	Hispanic
Mona Sherrell	Albuquerque	Low Incidence Coordinator (Albuquerque Public Schools)	Hearing	Caucasian
Lawrence Siegel, Esq.	Nationwide	Executive Director/Consultant (National Deaf Education Project)	Hearing	Caucasian
Ronald Stern	New Mexico School for the Deaf – Statewide	Superintendent of the New Mexico School for the Deaf	Deaf/HH	Caucasian
Cathy Stevenson	State Department of Health – Statewide	Bureau Chief for Community Programs Department of Health	Hearing	Caucasian
Trish Thomas	Laguna	Advocate - American Indians; Parent	Hearing	American Indian

A GLOSSARY OF ACRONYMS USED IN THE REPORT

ADA - Americans with Disabilities Act

ASL - American Sign Language

CEASD - Conference of Educational Administrators Serving Schools and Programs for the Deaf

CFR - Code of Federal Regulations

COED - Commission on Education of the Deaf

COPD - Community Outreach Programs for the Deaf

CYFD - Children, Youth and Families Department

DCC - Deaf Cultural Center

DOH - State Department of Health

ERCD - Educational Resource Center on Deafness (NMSD's Outreach Department)

FAPE - Free Appropriate Public Education

FIT - Family Infant Toddler Program

GRI - Gallaudet Research Institute

IDEA - Individuals with Disabilities Education Act

IEP - Individualized Education Plan/Program

IFSP - Individualized Family Service Plan

LEA - Local Education Agency

LRE - Least Restrictive Environment

MOU - Memorandum of Understanding

NASDSE - National Association of State Directors of Special Education

NDEP - National Deaf Education Project

NMAD - New Mexico Association of the Deaf

NMSD - New Mexico School for the Deaf

PRO - Parents Reaching Out

SDE - State Department of Education

SEA - State Educational Agency

SHHH - Self Help for Hard of Hearing Persons

SKI HI - SKI*HI Institute, Utah State University

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Deaf school student arrested

16-year-old boy held in September rape of 6-year-old girl

- By [SONIA SMITH](#)
- Advocate staff writer
- Published: Oct 18, 2008 - Page: 1B - UPDATED: 12:05 a.m.

[Comments \(0\)](#)

A 16-year-old male student of the Louisiana School for the Deaf was booked on a count of aggravated rape on Friday in the September rape of a 6-year-old girl.

The alleged rape occurred on a bus chartered by the Louisiana School for the Deaf that was taking students home to north Louisiana on Sept. 26, said Mark Dennis, a spokesman for State Police Troop F.

State Superintendent of Education Paul Pastorek said Friday the department will continue to cooperate with authorities.

“This was a tragic event — one that has resulted in triggering a great deal of heartache and unrest,” Pastorek said in a statement. “The department has responded in the best way we can to limit the potential for similar events, but the hardest part for us is the recognition that both of these young people will continue to suffer the consequences of this incident.”

News of that sexual assault, combined with other allegations of misconduct, safety concerns and the release of a report commissioned by the state Department of Education, prompted Pastorek to temporarily close the school Oct. 8.

On Tuesday, Pastorek announced that the school could reopen for some of the school’s 193 students by Nov. 3, at the earliest.

Investigators determined that the teen raped the girl while the bus was traveling through Franklin Parish, Dennis said. The 5th Judicial District Attorney’s Office is handling the case.

The student, whose name was not released because he is a juvenile, was booked at the Franklin Parish Sheriff’s Office on a count of aggravated rape, Dennis said. The teen is being held at a juvenile detention facility, pending a hearing in front of a judge within 72 hours of his arrest.

Pastorek has said that the reported assault began on the back seat of the bus and continued when the boy locked himself in the bus restroom with the girl. Dennis declined to comment on where the assault took place.

A chaperone, who was a residential adviser at the school for one year, ignored or did not understand another student's attempt to tell her about the rape while it was happening, Pastorek said.

After the incident, Pastorek fired the chaperone, who did not know sign language when she was hired, he has said.

Dennis declined to say whether charges would be sought against the chaperone, citing an ongoing investigation.

The 16-year-old boy is one of 14 students the school has flagged as having behavioral issues that make them a higher risk to themselves or others, Pastorek has said.

The arrest of the male student came a day after the school's former interim director complained about how the school closing was handled.

Kenny David, who retired as interim director of the school two days after it closed, informed the state Board of Elementary and Secondary Education Thursday that he never recommended the closure.

"We were essentially allowed no other options," David said in a letter to the board.

David added he was not given enough time to tell students, parents and staff that the school was closing before Pastorek made his announcement at a news conference.

This, David wrote, "made it very challenging to execute the transition in an orderly fashion."

David also faulted the Department of Education for not formulating a plan on how students would continue to receive educational services while the school is closed.

"This hasty decision has caused turmoil in the LSD community which is interfering with the opportunity to educate our children," David wrote.

Find this article at:

<http://www.2theadvocate.com/news/31219604.html?showAll=y&c=y>

Check the box to include the list of links referenced in the article.

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FIRST JUDICIAL DISTRICT COURT
STATE OF NEW MEXICO
COUNTY OF SANTA FE

ENDORSED
First Judicial District Court
APR - 1 2009

Santa Fe, Rio Arriba &
Los Alamos Counties
PO Box 2263
Santa Fe, NM 87504-2268

DV, a minor child, by and through her parent,
legal guardian, and next friend EM,

Plaintiffs,

vs.

No. D-101-CV-200900725

THE BOARD OF REGENTS OF
THE NEW MEXICO SCHOOL FOR THE DEAF,
THE NEW MEXICO SCHOOL FOR THE DEAF and
RONNIE SANDOVAL,

Defendants.

**FIRST AMENDED COMPLAINT FOR CIVIL RIGHTS VIOLATIONS,
GENDER DISCRIMINATION, SEXUAL ASSAULT and HARASSMENT
and NEGLIGENCE**

COMES NOW, Plaintiff, DV, a minor child, by and through her mother, parent and legal guardian, EM and through her attorneys, the Law Offices of Nancy L. Simmons, P.C. (Nancy L. Simmons, Esq. and David Meilleur, Esq.), and asserts her causes of action for (1) violation of her Fourteenth Amendment rights to Equal Protection and substantive Due Process, as actionable pursuant to 42 U.S.C. §§ 1983, 1985, and 1988, and for (2) negligence in the operation of a motor vehicle pursuant to the New Mexico Tort Claims Act, based upon the following allegations:

JURISDICTION AND VENUE

1. This Court has jurisdiction over this cause of action pursuant to the New Mexico Constitution, art. VI, § 13 (district court has original jurisdiction in all matters).

2. Venue is appropriate in the First Judicial District Court pursuant to NMSA 1978, § 38-3-1(A)(residence of plaintiff and several defendants and where cause of action arose).

PARTIES

3. Plaintiff DV is sixteen (16) years old. DV has lived in New Mexico at all relevant times. EM is the mother and both legal guardian of DV.
4. Defendant Board of Regents of the New Mexico School for the Deaf (“Regents”) is the five-member, governor appointed board charged with the administration of the New Mexico School for the Deaf as defined by statute. N.M.S.A. § 21-6-1.
5. Defendant New Mexico School for the Deaf (“NMSD”) is a governmental entity which owns, operates and maintains the school van and school van operation that transports its students to and from school and home. Upon information and belief, Defendant NMSD employed Defendant Ronnie Sandoval (“Sandoval”) for the 2006 to 2007 school years.
6. Defendant Ronnie Sandoval was a resident of the State of New Mexico and a van driver employed by Defendant NMSD.
7. Plaintiff brings suit against Defendant Sandoval in his individual capacity. At all times material hereto, Defendant acted under color of state law and/or local ordinances, policies and customs and within the scope of his employment.

FACTUAL ALLEGATIONS

8. At some point in time prior to April 10, 2007, Defendant Sandoval was hired to operate a van for Defendants Regents and NMSD, transporting minor children suffering from varying degrees of deafness to and from home. Upon information and belief, Defendant Sandoval’s background was not investigated or was not investigated sufficiently at that

time. Neither did Regents or NMSD provide sufficient training or supervision to Defendant Sandoval. Neither did Regents or NMSD provide any mechanism for monitoring what occurred on the buses.

9. On April 10, 2007, while DV was heading back to Albuquerque from NMSD, Defendant Sandoval had DV sit next to him on the passenger side of the school van. Defendant Sandoval placed his hand up DV's sleeve and began to touch DV's breast under her bra.
10. DV was scared and nervous.
11. Defendant Sandoval began making the deaf sign for "curious" and started to touch her thighs, close to her genitals. The physical assault lasted awhile, then Defendant Sandoval stopped and said nothing more.
12. Upon her return to her group home, DV immediately told a La Familia staff member who came to pick her up.
13. Defendant's acts were conducted during school hours, on school premises or in a school vehicle, and under the auspices of his employment with NMSD.
14. Defendant Sandoval singled Plaintiff out as a female student for sexual abuse and molestation based on her gender.
15. Upon information and belief, Defendant Sandoval singled Plaintiff out as a disabled student for sexual abuse and molestation, believing Plaintiff was less likely to report the abuse or to be believed.
16. Upon information and belief, Regents and NMSD knew, or should have known, that Defendant Sandoval was likely to molest children on the school bus. In addition or in the alternative thereto, Regents and NMSD knew or should have known of the risks to the

safety of Plaintiff and other similarly situated children due to the failure to monitor or chaperone the conduct of male van operators towards disabled female passengers.

17. Plaintiff was frightened, distressed and humiliated by Defendant Sandoval's conduct and authority as the bus driver. Plaintiff believed she was not free to make him stop or to leave the school bus and felt trapped and scared.
18. As a direct result of Defendant's physical assault, Plaintiff is suffering ongoing emotional distress and will do so in the future. Plaintiff has not returned to NMSD since this occurrence.
19. Defendant Sandoval's affirmative acts and deliberate indifference are shocking to the conscience of the court.
20. As a direct and proximate result of the actions or inactions of Defendants, and each of them, Plaintiff has suffered and will continue to endure pain and suffering, and extreme and severe mental anguish and emotional distress; she has incurred and will incur medical expenses in the future for treatment by psychotherapists and other health professionals; increased educational expenses, and other incidental expenses. Plaintiff thereby is entitled to nominal, compensatory and punitive damages against Defendant Sandoval, and nominal and compensatory damages against Defendants Regents and/or NMSD in an amount to be proven at trial.

FIRST CAUSE OF ACTION

(Fourteenth Amendment Equal Protection against Defendant Sandoval)

21. Plaintiff repeats and realleges by reference each and every allegation contained herein above and incorporates the same herein as though fully set forth.

22. The actions of Defendant Sandoval as alleged herein were all done or taken under color of state law.
23. The actions of Sandoval constitute unlawful discrimination on the basis of gender and disability in violation of the Equal Protection Clauses of the Fifth and Fourteenth Amendments to the U.S. Constitution, as Defendant Sandoval represented a threat to female students only.
24. As a direct and proximate result of Defendant's actions, Plaintiff has suffered and will continue to endure pain and suffering, and extreme and severe mental anguish and emotional distress; she has incurred and will incur medical expenses in the future for treatment by psychotherapists and other health professionals, and for other incidental expenses. Plaintiff is thereby entitled to nominal and compensatory damages in amounts to be proven at trial.
25. Defendant's conduct as described herein was malicious and oppressive, and done with a conscious disregard of Plaintiff's rights. The acts of Defendant was performed with the knowledge of an authority figure's near-absolute power over school children. Consequently, Plaintiff is entitled to punitive damages from Defendant Sandoval.
26. Plaintiff has been required to retain counsel to prosecute this action and is therefore entitled to reasonable attorney's fees pursuant to 42 U.S.C. § 1988.

SECOND CAUSE OF ACTION

(Fourteenth Amendment Substantive Due Process against Defendant Sandoval)

27. Plaintiff repeats and realleges by reference each and every allegation contained herein above and incorporates the same herein as though fully set forth.

28. The actions of Sandoval alleged herein constitute a violation of the substantive due process, as absolutely unconscionable and shocking treatment in the provision of services related to Plaintiff's public education, a fundamental right which is accorded citizens pursuant the United States Constitution and the Fourteenth Amendment thereto.
29. Defendant's conduct is shocking to the conscience of the court and violated Plaintiff's substantive due process rights.
30. As a direct and proximate result of Defendant's actions, Plaintiff has suffered and will continue to endure pain and suffering, and extreme and severe mental anguish and emotional distress; she has incurred and will incur medical expenses in the future for treatment by psychotherapists and other health professionals, and for other incidental expenses. Plaintiff is thereby entitled to nominal and compensatory damages in amounts to be proven at trial.
31. Defendant's conduct as described herein was malicious and oppressive, and done with a conscious disregard of Plaintiff's rights. The acts of Defendant were performed with the knowledge of an authority figure's near-absolute power over school children. Consequently, Plaintiff is entitled to punitive damages from Defendant Sandoval.
32. Plaintiff has been required to retain counsel to prosecute this action and is therefore entitled to reasonable attorney's fees pursuant to 42 U.S.C. § 1988.

THIRD CAUSE OF ACTION

(New Mexico Tort Claims Act against Defendants Board of Regents and NMSD)

33. Plaintiff repeats and realleges by reference each and every allegation contained herein above and incorporates the same herein as though fully set forth.

34. Defendants Regents and NMSD are subject to suit by reason of the waiver of immunity pursuant to NMSA 1978, §41-4-5 and each and every other applicable provision of the New Mexico Tort Claims Act, §41-4-1 *et seq.* Specifically, with regard to NMSA 1978, § 41-4-5 waiver of immunity, Defendants maintained and operated a motor vehicle in a dangerous and unsafe condition and thereby created an unsafe condition existing on that vehicle.
35. At all times material herein, Defendants Regents and NMSD knew, or reasonably should have known, that the incidents, conduct, acts, and failures to act described herein above, would and did proximately result in physical and personal injury and emotional distress to Plaintiff, including, but not limited to, loss of sleep, anxiety, tension, depression, and humiliation.
36. As a direct and proximate result of the acts and failures to act of Defendants Regents and NMSD, Plaintiff has suffered and will continue to endure pain and suffering, and extreme and severe mental anguish and emotional distress; she has incurred and will continue to incur medical expenses in the future for treatment by psychotherapists and other health professionals; increased educational expenses, and other incidental expenses. Plaintiff is thereby entitled to compensatory damages in amounts to be proven at trial.
37. Defendants Regents and NMSD had a duty to operate and maintain the school bus, to keep it free from unsafe, dangerous, and defective conditions and the duty included keeping the school bus safe from an unreasonable risk of harm to the students, including providing appropriate screening, supervision, and monitoring of the driver and the bus.

38. Defendants' actions and failures to act constituted a known or knowable danger to all students similarly situated to Plaintiff.
39. Defendants Regents and NMSD had timely actual and constructive notice of the time, place and circumstances of the incidents and likelihood that litigation would ensue against Defendants.

PRAYER FOR ALL CLAIMS

WHEREFORE, Plaintiff requests judgment in her favor and against all Defendants as follows:

1. For compensatory damages occasioned by the conduct of Defendants as may be proved at the trial of this case;
2. For emotional distress and anguish arising from bodily injury and for past and future psychological expenses incurred and to be incurred;
3. For past and future medical care incurred and to be incurred;
4. For additional educational expenses incurred and to be incurred;
4. For punitive damages as to Defendant Sandoval;
5. For Plaintiff's attorneys' fees as to Defendant Sandoval and costs incurred herein as to both Defendants;
6. For a change in NMSD policy with regard to monitoring and supervision of NMSD buses and drivers, pursuant to state and federal laws and standards;
7. For such other and further relief as the Court deems just and proper; and
8. For a jury trial on all triable issues of fact.

Respectfully submitted,

THE LAW OFFICES OF NANCY L. SIMMONS, P.C.

By: *Nancy L. Simmons*

Nancy L. Simmons

David Meilleur

120 Girard SE

Albuquerque NM 87110

(505) 232-2575

Attorneys for Plaintiff

COPY

SECOND JUDICIAL DISTRICT COURT
COUNTY OF BERNALILLO
STATE OF NEW MEXICO

SYLVIA and ALEX MARTINEZ,
as Parents and Next Friends
of J. M., a minor,

Plaintiffs,

v.

THE NEW MEXICO SCHOOL FOR
THE DEAF, RONALD J. STERN, in his
individual capacity, TERRY WILDING, in
his individual capacity, and PATRICK
ERCOLINO, in his individual capacity,

Defendants.

**COMPLAINT SEEKING MONETARY DAMAGES
FOR NEGLIGENCE AND VIOLATIONS OF CIVIL RIGHTS**

Sylvia and Alex Martinez, in their capacity as Parents and Next Friends of J. M.,
a female minor, by and through their attorneys, Hubert & Hernandez, P.A. (Stephen A.
Hubert and Marci E. Beyer) and Almanzar & Youngers, P.A. (Joleen K. Youngers)
appear and for their Complaint state as follows:

Jurisdiction and Venue

1. This case is a civil rights action for money damages arising under the
Fourteenth Amendment to the United States Constitution and 42 U.S.C. §1983 and
under Title IX of the Education Amendments of 1972, 20 U.S.C. § 1681(a), which
provides that "[n]o person ... shall, on the basis of sex, be ... subjected" to
discrimination, and includes claims of negligence brought under the New Mexico Tort
Claims Act, ("Tort Claims Act"), NMSA. 1978 §§ 41-4-1, *et. seq.*

ENDORSED
FILED IN MY OFFICE THIS
AUG 26 2008

Janita M. Devan
CLERK DISTRICT COURT

KENDRA GOERS

CV-2008-08999
Judge WILLIAM F. LANG
JURY TRIAL DEMANDED



2. Notice was given as required by Section 41-4-16 of the New Mexico Tort Claims Act ("Tort Claims Act").

3. The events giving rise to this Complaint occurred at the New Mexico School for the Deaf in Santa Fe, New Mexico.

4. This Court has jurisdiction over this action and over the parties.

5. Venue is proper in this Court.

The Parties

6. Plaintiffs Sylvia and Alex Martinez are married and the parents of J.M., a minor who was born on September 14, 1994. Plaintiffs and their daughter, J.M, are residents of Bernalillo County, New Mexico.

7. Defendant New Mexico School for the Deaf ("NMSD") is an educational institution of the State of New Mexico and as such, is an arm of the state of New Mexico. With respect to Title IX claims for damages, Congress expressly abrogated such immunity. Pursuant to the New Mexico Tort Claims Act ("Tort Claims Act"), NMSA 1978, § 41-4-6, NMSD does not possess sovereign immunity for claims of negligent operation and maintenance of its premises.

8. NMSD is designated as a special state supported school that is operated under the supervision of the New Mexico Public Education Department. NMSD provides on-campus services for approximately 150 students as well as off-campus support services for deaf and hearing impaired students in New Mexico schools. It receives state and federal funds.

9. At all times material hereto, and through its officials, administrators, and employees, NMSD was responsible for the operation and maintenance of its campus.

10. On information and belief, Defendants RONALD J. STERN, TERRY WILDING and PATRICK ERCOLINO ("individual defendants") are residents of Santa Fe County, New Mexico. All three are sued in their individual capacities.

11. The term "Defendants" used herein refers to agents and employees of NMSD, including but not limited to the individual defendants. At all material times, all such agents and employees were acting in the course and scope of their employment with NMSD and under color of state law.

12. At all material times, Defendant Stern was the Superintendent of NMSD and as such, was responsible for the general operation and supervision of NMSD. Defendant Wilding was employed as the principal of NMSD, whose duties included management and oversight of the school.

13. Defendant Ercolino was a counselor at NMSD whose duties included taking appropriate action to protect a student known to be at risk of harm and/or to protect a student from another student that he knew posed a risk of harm.

14. Defendants Stern and Wilding have common-law and statutory duties to maintain and operate the NMSD. Defendants Stern and Wilding have the duty to properly train and supervise all personnel employed at NMSD and to develop programs to educate and protect the students it serves.

15. Defendants have a duty to follow their own policies and procedures and to see to it that those under their supervision are aware of and follow such policies and procedures.

16. Defendants have a duty to protect Plaintiff and other similarly situated students from sexual advances and assaults, with such duty arising from the

student/educator relationship and NMSD's position *in loco parentis* at material times.

Facts Common to All Claims

17. J.M. is profoundly deaf and receives special education services. Her level of sophistication, intellectual abilities and IQ are below normal for a hearing child of her same age. J.M. is a student at NMSD and has attended NMSD as a non-residential student.

18. J.M.'s parents, Sylvia and Alex Martinez, opted to send J.M. to school at NMSD after J.M. experienced difficulty in the Albuquerque public schools. Based on the information they received while visiting NMSD, they were informed that it offered superior service for deaf students and a better understanding of the unique needs of deaf students. They questioned NMSD administrators about prior incidents they had heard of that had occurred on campus, to include a rape and a pregnancy. The administration assured J.M.'s parents that they had improved the security and that J.M. would be fine there.

19. At material times, J.M. was fifteen years old.

20. Jorge Chavez was a residential student at NMSD at material times while J.M. attended school there. Jorge Chavez was born on January 22, 1987. He was 19 years old at the time of the events giving rise to this Complaint.

21. One day in late August, 2006, J.M. was in the NMSD library doing a report. When she stood up, Jorge signed to her that she was pretty and then accosted her, tried to kiss her, and grabbed her crotch and her breasts.

22. J.M. didn't see a librarian or other adult, so she went to the counselor, Ercolino, and then to the principal, Wilder, and communicated what had happened.

23. After school, J.M. reported her mother, Sylvia Martinez, that Jorge had touched her inappropriately. Her mother went to see the principal, Defendant Wilding, the next morning to ensure that they were taking the incident seriously and that steps would be taken so that this wouldn't happen again.

24. At that time and on other occasions, Sylvia Martinez expressed concerns to NMSD administration about J.M.'s safety and the potential for future assaults. She was assured that J.M. would be protected and that safeguards would be put in place.

25. The administration investigated the incident in the library and interpreted what had happened as "a misunderstanding between the two of them", apparently accepting Chavez' explanation that he thought they were dating and disregarding J.M.'s complaint that she had been touched inappropriately. The principal gave both students "a warning," despite the fact that J.M. was the victim of the sexual assault and had reported it as such.

26. Defendants did not act reasonably or responsibly to protect J.M. from harm at the hands of Chavez, who was able to commit additional acts of sexual harassment and sexual assault as a direct result of Defendants' knowing failures and acts of omission.

27. On information and belief, none of the individual Defendants reported the August sexual assault of J.M. by Chavez as an incident of child abuse or neglect.

28. After the August assault in the library, Jorge Chavez continued to pursue J.M. and to express sexual interest in her. On one occasion, he sent her a text message asking her to send him a photo of her breasts, which she did not do.

29. On October 17, 2006, J.M. scheduled a meeting with NMSD counselor Patrick Ercolino because Jorge Chavez has continued to pursue and pressure her, which made her feel uncomfortable and she wanted it to stop.

30. At the end of the meeting, Ercolino suggested that he would like to have a meeting to counsel Jorge Chavez about the impropriety of him having a relationship with J.M. "given their age difference." He asked J.M. to attend the meeting and she agreed to do so.

31. Rather than taking action to protect J.M. and to prohibit Chavez from having contact with her, Ercolino scheduled a meeting with both to discuss "their relationship", thereby creating the need for both to be out of their classroom at the same time, unescorted and unprotected, and allowing Chavez unfettered access to J.M.

32. On the morning of October 18, 2006, J.M. was late to school and did not arrive on time for the meeting with counselor Ercolino and Jorge Chavez. Ercolino told Chavez that the meeting would have to be rescheduled and sent him back to his classroom.

33. J.M. was brought to school by her mother, who escorted her to her class. J.M. then asked her teacher for a pass to go the medical center to meet with Mr. Ercolino. She was given the pass.

34. At approximately 9:25, J.M. was walking to the medical building on the NMSD campus when she was approached by Jorge Chavez from behind and he tickled her. She was surprised by his behavior and continued walking into the medical center,

with Jorge Chavez following her.

35. J.M. and Chavez went back into the building to go to meet with Mr. Ercolino, but he was not there.

36. Jorge Chavez grabbed J.M. by the arm and led her down the hallway and into the Boy's Ward, which is part of the NMSD medical center. Chavez then started kissing her and taking his clothes off, pulling her into the bathroom. He forced her to take off her shirt. She told him "no" and to stop more than once. She also physically struggled with him, but he did not stop touching her and did not let her leave.

37. Jorge Chavez forcefully penetrated J.M. vaginally and anally, causing physical and emotional injuries.

38. Chavez eventually freed J.M., and she went to report what had happened to the principal.

39. A criminal investigation ensued, during which Chavez admitted that J.M. said "no", but that he continued to touch her.

40. Jorge Chavez was arrested and later pled guilty to statutory rape and contributing to the delinquency of a minor.

41. The rape was publicized. After the rape, the school environment became hostile to J.M., with students and faculty taking sides. She felt pressured and under scrutiny.

42. J.M. continued to attend NMSD because she could not receive the same level of services in the regular public schools, despite that she felt uncomfortable in the NMSD school environment as a result of what had occurred.

43. After Jorge Chavez was charged with criminal conduct, he continued to be

popular and openly celebrated and supported by many students, as well as some faculty and staff of NMSD.

44. NMSD has a history of prior incidents of sexual abuse and inappropriate sexual activity perpetrated on its students with whom it had a special relationship.

45. Deaf children are a vulnerable population, particularly in a setting such as NMSD, where many students reside and some students are as old as twenty-two.

46. Despite knowledge of the repeated acts of sexual abuse and misconduct, Defendants failed to take adequate measures to protect its students, including J.M., from sexual assault and to prevent its recurrence.

47. Defendants failed to enforce and follow their own policies and procedures regarding sexual misconduct.

48. Since the time when J.M. was raped, under pressure by parents and concerned citizens, NMSD has put programs, procedures, and equipment into place to better safeguard its students and to improve security, to include a visual public announcement system, a campus alerting system, meetings with students and staff, and a system for escorting students when outside of the classroom.

Count No 1
Negligent Operation and Maintenance of the
New Mexico School for the Deaf

49. The foregoing paragraphs are reiterated and incorporated by reference.

50. Defendants knew or reasonably should have known that the presence of Jorge Chavez constituted and created a dangerous condition on the NMSD premises and a foreseeable and pervasive risk of harm to students, including J.M.

51. Defendants knew or reasonably should have known that J.M. was at a

particular risk of harm from Jorge Chavez. J.M. and her parents had previously put Defendants on notice of Jorge Chavez' sexual interest in her and the fact that he sexually assaulted her. All were assured that J.M. would be protected.

52. Defendants knew that there were secluded areas in the building and on the campus which prohibited observation of the conduct of students. Defendants failed to have an emergency alert system in its restrooms, while knowing that many of its students were either mute or limited in their ability to speak with a loud volume.

53. In the years immediately preceding the incidents giving rise to this Complaint, the New Mexico legislature appropriated significant funds to NMSD to serve the NMSD student population through maintenance and improvements of the premises.

54. Defendants knew that many inappropriate sexual acts, sexual molestation and rape occurred on its premises, yet did nothing to correct this dangerous condition.

55. Defendants allowed students to leave the classroom unescorted while the faculty was busy teaching and unable to monitor the areas into which the students had access.

56. Defendants failed to put appropriate safeguards into place to monitor students on the premises.

57. Defendants' acts and omissions described in this Count and in the preceding paragraphs constituted negligence in the operation and maintenance of NMSD, creating conditions on campus which posed a danger to those present and for which immunity has been waived under NMSA 1978, Section 41-4-6 (1989).

58. Defendants' acts and omissions directly and proximately caused J.M. to suffer harm as a result of intentional torts committed against her by student Jorge

Chavez while both she and Chavez were under Defendants' direct care and custody.

Count No. II

**Violation of Fourteenth Amendment Rights Brought Pursuant to 42 U.S.C. §1983
Against Defendants Wilding and Ercolino**

59. The foregoing paragraphs are reiterated and incorporated by reference.

60. While the individual Defendants were operating in the special role of *in loco parentis*, under the custody and care of NMSD, J.M. had the substantive due process right of bodily integrity and the right to equal protection under the Fourteenth Amendment of the United States Constitution. These constitutionally protected rights mandated reasonably safe conditions on the premises and freedom from unjustified intrusions into personal security and bodily integrity.

61. Defendants Wilding and Ercolino had a duty to refrain from violating J.M.'s constitutional rights, and in particular, had a duty to provide J.M. with a safe school environment, including adequate protection and security of her physical well-being.

62. By their respective acts and omissions, Defendants Wilding and Ercolino violated J.M.'s constitutional rights and created a dangerous school environment for J.M. and/or increased J.M.'s vulnerability to the danger of sexual assault by Chavez.

63. The acts and omissions of Defendants Wilding and Ercolino include, but were not limited to, the failure to monitor conditions and ensure the safety of the students, including J.M, particularly in light of Defendants' knowledge of the sexually abusive propensities of Jorge Chavez and the fact that J.M. had been a prior target of Chavez' sexual aggression and was easily defined a potential victim of additional acts of violence and harassment. Defendants Wilding and Ercolino acquiesced in Chavez' conduct by failing to reasonable respond to his prior acts and to Plaintiff's reports of

same.

64. Defendant Ercolino made J.M. particularly vulnerable to assault by Chavez as a result of his instructions for the two to meet on the morning on which J.M. was raped, which allowed J.M. and Chavez to be outside of the classroom and unsupervised while traveling on the school grounds during school hours.

65. The acts of Ercolino and Wilding put J.M. at risk of serious, immediate and proximate risk of harm. The risk was obvious and known.

66. The acts and omissions of Wilding and Ercolino amounted to deliberate indifference to, or reckless disregard of, J.M.'s rights, protection and safety and deliberate indifference to the Chavez' known acts of sexual harassment toward J.M. Allowing Jorge Chavez to be on campus with J.M. outside of the supervision of any faculty or staff after he had demonstrated sexually inappropriate, abusive or exploitive behavior, without meaningful consequence, demonstrated a reckless disregard to the safety of other students, including J.M., particularly given the duties of the Defendants and their knowledge of the deaf community and deaf adolescents. Taken as a whole, these Defendants' acts and omissions shock the conscience of a reasonable person.

67. The rights in question, which were violated by Wilding and Ercolino, were clearly established well prior to the events giving rise to this lawsuit, and any reasonable school administrator and/or school counselor would have been aware that the acts and omissions described herein would subject students such as J.M. to an unreasonable risk of physical and mental harm and would be a violation of J.M.'s constitutional rights.

68. The acts and omissions of Defendants Wilding and Ercolino directly and proximately caused the violation of these rights, and resulted in injury to J.M.

69. The acts and omissions of the individually named Defendants were committed with reckless disregard for the safety, health and welfare of J.M. and/or were undertaken with conscious and deliberate indifference to J.M.'s rights, entitling her to an award of punitive damages.

Count No III
Violation of Equal Protection Rights Brought Pursuant to 42 U.S.C. §1983
Against Defendants Stern and Wilding

70. The foregoing paragraphs are reiterated and incorporated by reference.

71. Defendant Stern, as Superintendent of NMSD, and/or Defendant Wilding, as Principal of NMSD, acted as the final decision maker(s) and policy maker(s) for NMSD in regard to the operation of the campus. Defendants Stern and/or Wilding, as the official policy maker(s) and decision maker(s) in the area of student safety, exhibited deliberate indifference to the constitutional rights of students at NMSD and engaged in an informal custom or policy of failing to act appropriately in regard to the supervision of NMSD employees and the development of its policies and procedures. Stern repeatedly permitted or condoned constitutional deprivations and violations perpetrated on students by others.

72. Stern and Wilding had a duty to exercise due care in the supervision of employees of NMSD. In addition, Stern and Wilding had a duty to ensure appropriate policies and practices were in place and followed to adequately protect students from sexual abuse.

73. Stern and Wilding had a duty to refrain from violating J.M.'s constitutional rights and in particular, had a duty to provide students with whom the school had a special relationship arising out of the compulsory school attendance laws, like J.M, with

a safe school environment conducive to learning, including adequate protection and security of their physical well-being.

74. Stern and Wilding breached those duties by being deliberately indifferent to the constitutional rights of J.M. and by failing to properly hire, train, monitor and supervise employees of NMSD, by failing to inculcate existing policies and/or failing to modify or revise policies related to student security, by failing to compensate for known problem areas/blind spots that prohibited adequate observation of students, by failing to have an emergency alert system in place, by failing to adequately discipline Jorge Chavez for prior sexually inappropriate conduct, by failing to protect J.M. from additional acts of sexual and harassment perpetrated on her by Chavez, and by failing to take reasonable measures to abate the risk posed by known blind or secluded areas where students foreseeably could be victimized and injured by others, among other things.

75. The acts and omissions described above deprived J.M. of her constitutional right to equal protection and due process under the Fourteenth Amendment to the United States Constitution.

76. The rights in question were clearly established prior to the events giving rise to this lawsuit, and any reasonable school official would have been aware that the acts and omissions of Stern, described herein, would subject students such as J.M. to an unreasonable risk of physical harm and would be a violation of J.M.'s constitutional rights.

77. The acts and omissions of Defendants Stern and/or Wilding directly and proximately caused the violation of these rights, and resulted in injury and damages to J.M.

78. The acts and omissions of the individual Defendants were committed with reckless disregard for or were undertaken with conscious and deliberate indifference to J.M.'s rights, entitling her to an award of punitive damages.

**Count No. IV
Title IX Sexual Harassment**

79. The foregoing paragraphs are reiterated and incorporated by reference.

80. NMSD, through its officials, administrators and employees, including those individually named herein, had actual notice of Jorge Chavez' prior sexual molestation of J.M. at the time when he raped her.

81. Despite NMSD's knowledge of Chavez' prior molestation, NMSD officials, administrators and employees, including those named individually herein, took no effective remedial or preventative measures, thereby exhibiting deliberate indifference to the harassment perpetrated on J.M.

82. While attending NMSD, and while on the NMSD campus during school hours as described above, J.M. was subjected to acts of sexual harassment that were severe, pervasive and objectively offensive.

83. The acts were sufficiently severe, pervasive and objectively offensive that J.M. was deprived of her access to the educational benefits and/or opportunities provided by the school.

Prayer for Relief

WHEREFORE, Sylvia and Alex Martinez, as parents and next friends of J.M., pray for judgment as follows:

A. Compensatory damages in an as yet undetermined amount jointly and

- severally against all Defendants;
- B. Punitive damages in an as yet undetermined amount severally against the individual defendants in their individual capacities on the federal claims;
 - C. Pre- and post-judgment interest as allowed by law;
 - D. Reasonable costs and attorneys' fees and expenses incurred in bringing this action; and
 - E. Such other relief as the Court deems just and proper.

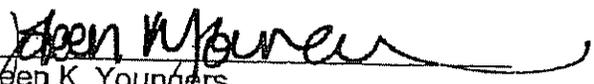
Respectfully submitted,

HUBERT & HERNANDEZ, P.A.

Stephen A. Hubert
Marci E. Beyer
PO Box 2857
Las Cruces, NM 88004-2857
575/526-2101
575/526-2506 (Fax)

-and-

ALMANZAR & YOUNGERS, P.A.



Joleen K. Youngers
PO Box 7256
Las Cruces, NM 88006-7256
575/541-8000
575/541-9000 (Fax)

Attorneys for Plaintiffs

**Final Report to Superintendent Pastorek
on the Status of
Student Safety and Security
at the
Louisiana School for the Deaf**

Alan Cohen, MD

CONTENTS

Overview..... 3

Historical Perspective..... 3

Assessment 7

Recommendations..... 8

Summary..... 15

I. Overview

After the appearance of several newspaper articles highlighting inappropriate contact between students and teachers at the Louisiana School for the Deaf (“LSD”), Superintendent Paul Pastorek contacted Dr. Alan Cohen and Dr. Reginald Redding to request that they complete an independent evaluation of the situation and answer three very specific questions:

- 1) Is there a systemic problem at LSD in regard to the alleged incidents?
- 2) Is LSD responding adequately?
- 3) Is there a mechanism in place to provide ongoing oversight?

The survey took place on the campus of LSD on June 13, 14 and 15, 2008. Although the school was not in session, the surveyors enjoyed unfettered access to both the physical plant and available personnel. All staff members were encouraged to speak freely without fear of retribution, and all were given direct access to our private email accounts in the event they wanted to make discreet contact. In addition, the Superintendent’s office assured us that we would have a direct reporting relationship to him, and in fact, private meetings were held with him and senior administrative staff on June 14, 2008 and again on August 12, 2008.

Of importance is fully appreciating the limited scope of a survey such as this one. Though the evaluators had complete access to all materials, it is essentially impossible to fully examine an institution of this size and complexity in a couple of days with two surveyors. As our charge was to examine the recently reported episodes of inappropriate student interactions with both teachers and community based adults, we tended to focus our attention on the policies, procedures and institutional responses related to those events. We are aware of the extensive past history of boundary violations between students, but our limited time at the institution made it impossible to review each of those files adequately. We do believe, however, that we were able to successfully identify the systemic problems that are of current concern, while also highlighting the unique strengths – most notably in the passionate commitment on the part of the staff – exhibited throughout all aspects of the school program.

Our report is divided into several separate sections. In the initial one we provide a brief history of Deaf education so that the reader can understand the situation in context. In the next section we respond to the specific concerns raised by the local newspaper in regard to the five distinct alleged episodes of inappropriate student – teacher and student-adult contact. This, in turn, is followed by the recommendations that address our more global findings and that we believe are critical in regard to establishing a safer and more developmentally sensitive environment for this often overlooked population. Lastly, the final section provides a consolidated summary of the entire report.

I. Historical Perspective

In the relatively recent past, many, if not most, Deaf girls and boys were sent to state run residential schools for the Deaf and Hard of Hearing. Though many parents moved closer to the individual state campuses in an effort to be closer to their children and possibly even kept them at home as “day students”, the majority lived in an institutional environment for many years.

The reason for the development of such a system is a bit complicated and outside the scope of this report, but suffice it to say that the prevailing wisdom at the time embraced the notion of housing Deaf people together so that they could be educated more efficiently and to spare them the indignity and

pressure of a world that had little understanding of the nature of their disability and tended to view them as “dumb” rather than unable to communicate verbally.

Superimposed on this attitude was a controversial disagreement among professionals regarding how Deaf kids should be taught, and specifically whether or not they should “learn” to communicate through the use of archaic and somewhat abusive speech therapies and finger spelling. Over time, sign language techniques were developed throughout the world and professional educators noted that the exposure to sign language at a critical time in psychosexual development resulted in a significantly higher level of functioning for most Deaf people over time – the reason being consistent with an assortment of developmental theories that found that the absence of communication at critical times in child development not only can lead to lower functioning individuals then, but also, may result in permanent impairment and limitations over time.

Gradually, both the Deaf and scientific community embraced the importance of American Sign Language (ASL) as the primary form of communication to be used by Deaf people, and state schools became hotbeds of the culture that grew up around that evolution. Deaf kids frequently reported feeling most comfortable in residential school environments not only because suddenly “everyone could speak their language”, but also because everyone understood their life experience, whether it be the frustration of hearing parents refusing to learn ASL and therefore not being able to communicate with them, or the struggle of learning how to read and write without any lexicon upon which to remember sounds. Many Deaf adults today speak lovingly of their Deaf school experience and are frustrated by the changes throughout the country that have resulted in budget cuts and the elimination of specialized Deaf services provided in the context of state residential schools.

But what happened along the way to cause many states to cut funding to Deaf schools and eliminate many of them? Well, first of all, technology happened. With the advent of the computer and electronic communication devices, Deaf kids were less isolated. Further, cochlear implants provided an opportunity to dramatically decrease the number of culturally Deaf people (although CIs are not the panacea they are frequently presented as), and immunizations cut down on the incidence of rubella during pregnancy so that there was a concomitant decrease in the numbers of Deaf kids that were Deaf as a result of infectious causes in utero.

Perhaps most significant, however, was the change in attitude regarding both parents’ willingness to send their kids away, and the increased efficiency in the home-based mainstream programs initiated by I.D.E.A. law that required the public schools to provide an appropriate free education to everyone regardless of the nature of their disability. The overall result was a decreased number of culturally Deaf kids, increased ability for doctors to provide options for many of them, and a school system that was motivated to keep as many kids as possible in their family home attending home district schools with specialized support services that were at times inadequate, but frequently resulted in test scores that were often higher than those of the kids in the residential programs. The inescapable implication was that Deaf kids did better in home-based mainstream programs, and the bonus for the states was that it was dramatically less expensive.

Unfortunately, there is much more to the story and the simple suggestion that everyone does better in mainstream programs turns out to not be entirely true. Research has repeatedly shown that many of the kids that flourish in the mainstream programs are the highest functioning among the very divergent Deaf population. Whereas in the past there were many examples of Deaf individuals with completely “normal” functioning other than being Deaf, science and technology had advanced to the point where the percentage of high functioning Deaf kids to the overall number of Deaf kids with multiple and more

complex presentations had decreased. In turn, the highest functioning of all Deaf kids presenting for educational support were subsequently encouraged to utilize home based, mainstream programs, where, as one would expect, they did fairly well with a wide range of support in place. The “other” Deaf and Hard of Hearing kids, however, were not necessarily sought in the mainstream programs because they typically presented with a multitude of exceptionalities that not only served to reduce local test scores, but also, stressed the resources of the mainstream programs and frequently frustrated parents, as well.

Ultimately, the outcome in many states was that the very highest functioning kids stayed home in mainstream programs, and many of the lower functioning Deaf kids ended up in the state Deaf schools by default. This in turn led to Deaf schools attempting to be all things to all Deaf people whether they presented with relatively high functioning, or had cognitive limitations, autism, severe behavioral and/or emotional difficulties or co-morbid neurological issues.

In other states, the state run Deaf program did just the opposite – i.e., culling the applications for the best and the brightest Deaf students, while leaving the lower functioning kids to fend for themselves in home districts that were woefully underfunded and frequently willing to accept a level of educational mediocrity that was so disturbing that many home districts were successfully sued by families for consciously and willfully allowing Deaf kids to go without appropriately trained Deaf educators and inadequately skilled interpreters. To be fair, there are exceptions to every rule and Louisiana is a good example. Though many of the kids at LSD would be considered relatively high functioning, the overwhelming majority are not. For example:

- 10-15% of all students at LSD have been formally diagnosed as cognitively impaired.
- In the previous academic year, only six students qualified for the diploma track and most of them did not receive a basic full academic diploma.
- Approximately 40-50% of the students are receiving psychotropic medications and carry a psychiatric diagnosis.
- A significant percentage of kids come from emotionally and economically impoverished backgrounds.
- Many, if not most, of the Deaf kids born to hearing parents live in home environments where neither parent is able to be conversationally fluent with their Deaf child.
- Most, but not all, of the higher functioning Deaf kids in Louisiana attend mainstream programs in their home district.
- Because any child attending LSD is identified as receiving services through “special education”, they cannot be removed from the school regardless of their actions or the risk they pose to others. Administrators and teachers have numerous stories of kids who are described as literally stalking other staff members and students, while school officials have their hands tied and are forced to develop costly stop-gap interventions for lack of alternative interventions.

So where does that leave us?

Simply put, though there are fewer culturally Deaf kids presenting for services today as opposed to 20 years ago, the majority of higher functioning kids tend to remain in their home districts while the lower functioning ones may end up in the state system. As a result, the state programs with their rich cultural histories and traditions tend to struggle with both a compromised economic environment as well as a population that is skewed to the multiply handicapped, which in turn, places greater and greater economic burdens on the faltering system. Exacerbating the situation is a naïve political system that

makes no distinction between a specialized Deaf school attempting to educate a wildly diverse population and a “regular” community based school that is working with statistically average kids.

The result is simply a recipe for frustration on the part of every single group involved: Parents frequently complain of inadequate academic progression; fewer and fewer kids graduate with actual diplomas and even fewer are equipped to be self-supporting as a result of functional illiteracy; state officials are frustrated in their inability to deliver services that are seen as adequate by virtue of test performance and frequently must struggle with the pressures of figuring out costly ways to simply manage students and keep them safe rather than educating them, and of course teachers are frustrated in their inability to impact a somewhat resistant student population.

To be clear, it is important to also note that scandals regarding inappropriate sexual acting out at Deaf schools are not uncommon. Of course, this doesn’t make it acceptable, but it does beg the question of whether or not the problem is endemic to Deafness or is a function of circumstances. The answer is complicated for a number of reasons.

First and foremost, Deaf residential schools are unique in the sense that they historically housed a wide range of diverse ages in dormitory like settings over many years. I would venture to say that any population that is housed together over time will experience a fair amount of sexual acting out, and that has been seen as recently as last year in a very prominent elite co-ed boarding school in New England. Sex among unsupervised children and adolescents is certainly not unique to Deafness.

That said, some of the circumstances related to Deafness, highlighted below, are, in fact, unique and require attention:

- As we have learned above, Deafness, and Deaf residential schools, tends to include a wildly divergent group of individuals, many of whom are functioning on levels well below others. Research has shown us time and again that sexual abuse takes place under a variety of circumstances, but frequently when there is a dramatic gulf in status between the participants. An example might be a child of normal intelligence and a retarded or autistic individual. Likewise, an older and younger student. In both cases there is a status gap between the individuals and abuse can flourish.
- We have also learned that all things being equal, more Deaf kids are sexually molested than non-Deaf kids. The reasons for this are complex, but the easiest way to understand it is probably through the metaphor that “Deaf people have no voice” – meaning that they both literally and figuratively lack a voice and speak in a language that isolates them from the overwhelming majority of the population, in addition to the fact that they tend to be marginalized by society, in general.
- Deaf residential schools are run as “regular” schools despite the fact that they function more and more as residential treatment centers for kids with a multitude of problems. As a result, state guidelines and standards are relatively minimal in regard to staffing requirements, training of staff, level of supervision, etc. Interestingly, and for a variety of reasons, most school directors tend to protect their status as “schools” rather than RTCs as they are uncomfortable with the dramatic increased expectations and costs that are necessary to provide security to such a complex population.
- Even if the residential schools were heavily staffed, we are all painfully aware of economic pressures that have routinely faced individual state departments of education. When that happens, budgets are cut everywhere, and Deaf schools tend to feel the loss in spades as their

population is significantly less elastic than others and the result of decreased staffing is that kids go unsupervised.

- Ironically, even if the funding remained stable, which it has not, simply finding adequate staff is difficult as ASL is not known by most non-Deaf professionals, and line staff jobs tend to pay minimal wage for only a 9 month period of time as the academic year end allows states to pay the least skilled staff members, who happen to spend the most time with the students, the least amount possible. What kind of staff do you think you'll attract under those circumstances?
- By definition, many Deaf students are developmentally delayed and frequently cannot handle the implications of sexual maturity in the face of societal limitations and boundaries.

Lastly, and perhaps most politically dangerous to suggest, the Deaf community tends to be a somewhat incestuous one by necessity. In most small towns or states the paucity of people fluent in ASL is minimal, so Deaf children, adolescents and adults are literally forced to rely on a relatively small total population of people who tend to gravitate to Deaf centers of employment for the socialization that they crave. As a result, many Deaf people who have gone through Deaf schools return to work there. If they experienced any abuse while there, they are statistically more prone to repeat the behaviors, and so on down the line.

II. Assessment of incidents recently highlighted by local newspapers

The numbered items below represent simplified versions of the five student-teacher and student-adult based abuse reported in The Advocate over recent months. The simplified presentation is not meant to in any way diminish the significance of the allegations, but rather, are intended to provide a more efficient and clinical manner in which to discuss them.

- Inappropriate electronic communication between a teacher and student
- Inappropriate electronic communication between a (different) teacher and a student
- Inappropriate electronic communication between a former teacher and a student.
- Inappropriate physical contact between a former student/former employee and a current student while former employee was working at church that LSD students attended
- Inappropriate electronic communication between a former student and a current student

The evaluators reviewed all of the cases with administrative staff, teachers and state authorities. In addition, the evaluators reviewed the previous task force findings, read the newspaper accounts and met with the representative group of parents of LSD students. Our findings are as follows:

1. In all cases presented, LSD followed its documented policies and procedures and secured clear background checks prior to firing of alleged perpetrators.
2. In cases of current employees being involved, there is documentation of employee having completed all required training and participating in required supervision.
3. In each evaluation, the LSD administrator acted swiftly and appropriately in advising parents, juvenile authorities and law enforcement, where appropriate.
4. In situations where alleged events took place off campus, all appropriate authorities were contacted independently.
5. In situations where alleged events took place on campus, the alleged perpetrators were removed from student contact immediately and again, authorities were immediately contacted.
6. Though this in no way is meant to excuse or condone any of these events, it is striking to note that several of the alleged abuses took place with one particular student and several different staff members over several years. In staff interviews, it was revealed that the particular student

has a long history of problematic behavior, is often unsupervised or inadequately supervised while at home, and on occasion, has been seen as a predator by other staff members who observed her over time.

7. It is essentially impossible for LSD to manage the behavior of any student while off campus.
8. In much the same way, it is essentially impossible for LSD to monitor the activities of former employees while off campus.
9. The policies and procedures associated with the behavior of employees or volunteers at institutions frequented by LSD (i.e. churches) are unknown and represent a potential problem. Policies and procedures that govern the interaction of students with ANY outside individual while under the direct supervision of LSD must be developed and implemented immediately.
10. The extent of the specific training in regard to boundaries with students, and what is and is not appropriate contact, is limited and must be expanded to include mastery exams at specific time intervals to determine whether or not the information taught has been internalized.
11. Though LSD has specific policies that govern the use of electronic devices and personal interaction between students and staff, it is essentially impossible to police and must be revisited.
12. Consideration should be given to initiating a “student advocate” position who answers directly to the School Director alone, and whose task it is to respond neutrally to any anonymously raised concerns or complaints by members of the student body or their families.
13. In much the same way, teachers must have an anonymous route by which they, too, can raise concerns about students or other staff without fear of retribution or legal exposure (again, please note that several teachers reported that they had “suspicions” about what was going on with a particular female student, but they opted to not mention the concern for fear that they could get sued).

In summary, the surveyors saw no evidence of wrongdoing by the Louisiana School for the Deaf, but were struck by the nature of the incidents and the potential for other events of a similar nature in the future. Though incidents such as these have become almost commonplace throughout the United States, they are especially alarming in environments that are dedicated to the care and the education of individuals with disabilities. One need only do a cursory search over the web to identify a plethora of very similar, and at times much more extensive, events in state residential schools across America over the past ten years. The structure and management of those facilities raise very specific concerns and necessitates focused intervention if the situation is to be contained and effectively eliminated. The next section on recommendations expands on the suggestions made above.

III. Recommendations

- 1) Develop facility-wide standards and establish state-based survey authority to provide clear, measurable and consistent requirements for all aspects of daily the daily administration of campus based academic and student life. If LSD is to continue to admit all types of Deaf students – of different ages, gender, intellectual and psychosexual functioning, the structure of the program must be re-evaluated to maintain safety and security for all students on campus.**

As previously described, LSD, like many state run schools for the Deaf, tends to slip through a multitude of regulatory cracks by virtue of the fact that it is neither a straight-forward school nor a medically supervised residential center. As a result, this extraordinary and unique program attempts to work with youngsters and young adults who are both gifted and cognitively impaired; “normal” and psychiatrically

compromised individuals; and who, at best, are frequently delayed in both language and psychosocial development.

We have already discussed the fact that a wide range of sexual acting out takes place in both regular public schools and elite boarding schools, so it should come as little surprise that it is also occurring at LSD. Unfortunately, the problem at LSD is exacerbated by the fact that wildly divergent groups of differing levels of competence and status are interacting in a somewhat haphazard and potentially problematic way. Superimposed on this system is a structure that attempts to keep LSD's identity that of a "regular", albeit specialized, boarding school environment which ultimately results in denying the reality of the situation and the potential that exists for disaster.

Further, the absence of firm budgetary commitments based on stringent state regulations makes the job of the school administrator essentially impossible as he or she is left to figure out ways to cut corners without compromising academics. Ergo, staffing levels frequently get manipulated, as do the training programs necessary to field adequate staff in the first place. Informing the entire process are unrealistic academic expectations ignorantly fostered by the grossly underfunded "No Child Left Behind" legislation and the serious scarcity of ASL fluent staff.

The bottom line is that LSD cannot adequately police itself regardless of how sincere and well intentioned its leaders may be. A regulatory commission should be established that will create measurable standards for everything from the temperature of the water coming out of the faucet to the type of training every staff member must have to work on campus in a supervisory capacity.

It is our recommendation that once established, these guidelines must be enforced and regularly surveyed by an independent team that will be responsible for sending their findings to the State Superintendent and the governing Board, and which will be subject to public scrutiny. Accountability by school personnel in regard to student safety and security can only be achieved when clear, cogent and appropriate standards are in place and properly funded.

We are aware of the resistance to plans such as these, as they tend to create environments that are less "regular" and more clinical. In the case of Deafness in general, the community has worked tirelessly to be seen less as dysfunctional and more as simply disabled by virtue of their hearing loss. Unfortunately, if LSD continues with its current population, it is not possible to maintain safety without a radical change in the structure of how the system operates and how it is reevaluated.

- 2) Re-evaluate the funding mechanism for LSD so that it is based on the school being able to meet the newly established standards and expectations of the overseers, rather than working backward by establishing guidelines based less on what is agreed upon to be correct and more on how much money is available. This should not be taken to mean that LSD should receive a blank check. Rather, it must be expected to operate efficiently and must be held to reasonable expectations in terms of total budget. It does, however, mean that the safety and security of students must be of the highest priority if the school is to remain open.**

LSD prepares a budget based on prior year expenditures and anticipated increase in costs (salary merits, food, gas, transportation, etc.), and submits it to the Division of Administration through an assigned Budget Analyst. After review and discussion, this is submitted to the Division of the Administration's Commissioner who submits the total state budget to the Governor. The Governor's Budget is then submitted to the Legislature.

The initial agency budget for the following school year is submitted by November 1. Usually in January the preliminary recommendation comes from the Budget Analyst and a packet is submitted to the Division of Administration indicating the consequences of items not funded. The school then has the opportunity to defend its requests before the Commissioner and a panel from his office, with or without the support/presence of the Department of Education (State Superintendent and State Director) depending on the year.

The Governor's Budget is submitted in February or March and the subcommittees of the House of Representatives schedule meetings with each agency. The BSS Directors are currently able to present their requests and explanations directly to the Legislature. In previous years the requests have been presented by the State Superintendent or the State Director. The subcommittee then presents to the full House Appropriations Committee and then the Full House. The bill then goes to Senate Finance for the same process and back to the full Legislature for final passage of House Bill 1.

During this process there may be various requests from the Division of Administration regarding the current year or upcoming year if funds are short. In addition, vacant positions may be frozen or a number of positions may be cut, potentially to be reinstated at a later date should the state find available money.

LSD is a line item on the Governor's budget and can be cut or added to accordingly. It is not a protected budget like the Minimum Foundation Program (MFP) budget but the cost per student is much higher than that provided by the MFP; LSD has always been careful in requesting protection because of the limitations that might come with that.

Given the above, it is clear that the school relies on the budget ultimately set in the governor's office, and as such, must get comfortable with the possibility of changes and/or cuts at any time. Ultimately, this results in a plethora of problems that range from the inability to attract adequate line staff to losing language teachers responsible for training non-signers in ASL so that they can communicate with the Deaf students that they are responsible for supervising. Budgets need to be formulated from the bottom up rather than top down. At the current time, it appears that the system is based on the "tail wagging the dog" rather than the other way around. Again, this is not about a blank check as we expect that there are numerous efficiencies that could be instituted under the right circumstances with the right people, but if the state wants change it must embrace new standards. Unfortunately, standards don't come cheap.

- 3) Despite our appreciation for the job done by Interim Director Kenny David, it is critical that the school be led by a professional with academic credentials and a history of having experience efficiently managing a program as complex and demanding as LSD's. We suggest establishing a "Blue Ribbon" commission made up of Deaf educators, psychologists and psychiatrists (with experience in, and knowledge of, Deaf culture), financial experts and seasoned administrators.**

Mr. David is an extremely competent and experienced individual who has lived on LSD's campus from childhood as a result of the fact that his Deaf parents worked at the school. He knows every nook and cranny on campus, and has done a yeoman's job of holding the ship together for several years. Despite that, he himself will be the first person to tell you that the school needs someone with full academic credentials so that they can appropriately supervise all staff and create a safe and nurturing environment in which the Deaf students can grow and learn. We concur with his perspective and would add that we believe that given the incestuous nature of much of what goes on at LSD, the final choice

should be an outsider who can be respected by both the academic and student life sides of the equation.

- 4) The school lacks adequate involvement from the Board that controls its fate. LSD needs an advocate that truly understands Deaf culture and the issues associated with the education of Deaf students. *Teaching Deaf kids is not the same as teaching hearing kids with interpreters.* The Board must be informed and must get involved if they are to understand the unique complexities of managing an institution such as LSD. Not only must they be expected to hold school officials accountable, but also, they must begin to embrace their role as resource and champion of the program.**

The BESE (Board of Elementary and Secondary Education) oversees all public education in the state of Louisiana and serves as the School Board for LSD. It is the governing authority which establishes personnel policies for unclassified staff members of Board Special Schools (BSS) and Special School District (SSD). Classified staff are governed by Civil Service rules and LA Department of Education employee policies.

The State Superintendent of Education (Paul Pastorek) is the appointed authority for BSS and SSD. The State Director (Virginia Beridon) is the chief officer of SSD and may be responsible for the supervision and oversight of the administration of the BSS if authorized by the State Superintendent (this is the case now).

Appointments to BSS Director positions and SSD State Director positions shall be made by the State Superintendent of Education with prior approval of the BESE Board. The Board President shall be notified of any acting appointments made by the State Superintendent prior to the appointment taking effect and the Board shall be notified of any acting appointments at its next regularly scheduled meetings.

The State Superintendent has issued a letter giving significant authority to the BSS Directors. They are expected to communicate with the State Director regarding major incidents and decisions.

Time and time again the evaluators confronted the almost complete lack of involvement on the part of the Board that is charged with the responsibility for making decisions related to LSD. *With but a few notable exceptions, no Board member has even visited the school, let alone familiarized himself with critical aspects related to Deaf education.* This apparent lack of interest and effort has resulted in ongoing morale problems and has left the school feeling much like a forgotten child – ironically mimicking a frequent complaint of many Deaf individuals. If the Board is to successfully hold the school administrators accountable, it must first get its own house in order and demonstrate an interest and commitment to LSD by familiarizing itself with fundamental aspects of Deafness and what Deaf schools need to be.

- 5) The ongoing use of unrealistic evaluation criteria that measures Deaf students against hearing, represents a stubborn lack of understanding of the fundamental issues related to Deafness. The governor must use his bully pulpit to assist Federal authorities in understanding the uniqueness of the Deaf student so that they are not continually penalized by “No Child Left Behind” regulations that do not adequately address their unique needs.**

The average reading and writing level at LSD for all students is profoundly lower than the general population. The reasons for this are complex, but at the very least, are exacerbated by delayed language formation as a result of many parents not making an effort to learn American Sign Language

and utilize it in the home environment during critical developmental periods. The task of correcting this delay falls to the school, but importantly, delays from an early age are often resistant to learning and many Deaf kids are stubbornly resistant to the effort that is needed to develop these skills from which everything else blooms. As a result, the vast majority of LSD students do NOT participate in diploma-based programs and only a handful of those that do actually receive a full high school diploma. To focus attention on the goal of meeting unattainable NCLB regulations when these kids lack the basic building blocks necessary to have a shot at an education is unrealistic, at best.

- 6) Because all students attending LSD are considered to be in special education placements, they are frequently “locked in” and administrators have few, if any, options available when individuals demonstrate socially inappropriate behavior. An effort must be made to provide alternative placements for chronically aggressive and socially resistant students.**

Again, all staff members interviewed volunteered that they are frequently at the mercy of some of the more profoundly disturbed kids who, despite ongoing acting out and dangerous behavior, cannot be separated from LSD. This not only poisons the entire school environment, but also it perpetuates the myth that all Deaf students could and should be at LSD. The evaluators wish to remind everyone that though diversity in Deaf school environments is common, they are not currently structured in a manner conducive to adequately monitoring kids with emotional problems. The state must decide if it wants LSD to be a school, or a treatment center, or a combination of both. Regardless, it must redefine its mission so that its goals are easy to recognize and there is no confusion as to what is expected to be.

- 7) Explore ways in which parental involvement in all aspects of student life can be expanded. Specifically, initiate a state-wide effort to improve parental use of ASL in the home environment, and provide regional training programs to improve parental supervision of students and knowledge of appropriate parenting techniques for different developmental stages.**

Research has repeatedly shown us that among the most critical prognostic indicators in regard to academic success is the attitude and involvement of parents in their children’s education. As we have previously discussed, many (but certainly not all) of the students at LSD lack any sense of parental involvement or awareness of their children’s academic circumstance. In addition, few of the hearing families of Deaf students have achieved anything even approximating fluency in ASL, and therefore can only superficially understand, communicate with or adequately supervise their children. During our several days at LSD we had the pleasure of meeting with a small group of parents who responded to our invitation to speak privately with us. To a person, each described – in emotional detail – the importance of LSD to their children, and specifically discussed the dramatic improvement in their kids functioning since arriving at the specialized program. Lest one assume that these families represented the academic all-stars, we were struck by the histories they told and the openness with which they spoke of their family members’ academic struggles and limited successes. Their kids were certainly not breezing through, but they were improving from both an academic and social perspective, every single year. It is our deeply held belief that a good deal of the change has resulted from the nature of the families involvement and each of their willingness to learn ASL. If LSD is to survive and flourish in the future, each of the sub-groups involved – students, state officials, teachers and staff, and of course, families – will have to do their part, and accountability must be expected. Going forward, this must include parents in a fundamental way.

- 8) Expand use of appropriate electronic safeguards to insure appropriate staff supervision of students throughout the night.**

As previously discussed, we have been impressed throughout the process with the responsiveness and sincerity of Superintendent Pastorek and his staff. In our initial meeting with them, we described a multitude of our immediate concerns, including, but not limited to, the lack of adequate supervision in the dormitories overnight, and specifically, the number of staff on duty and the general lack of oversight of their purpose. The evaluators pointed out that in their extended experience, night staff tended to sleep themselves rather than supervise, and that a system of “checks and balances” needed to be established to guarantee that the students were adequately supervised in dormitory settings where the physical plant is somewhat dated and not well suited to efficient observation. In an almost immediate response, the school was authorized to hire additional staff and to research and implement an electronic monitoring system that literally documents staff involvement throughout the night by recording that they waved their bar-coded wand in front of a sensor in each and every student’s room on an every 15 minute basis. By doing so, supervisors can now track the diligence of night staff supervision and can be assured of their presence as documented by the electronic record keeping. Not only did that go a long way to improve the quality of student supervision, it also demonstrated the seriousness with which Superintendent Pastorek and his team are approaching their job.

9) Explore initiation of appropriate restrictions on the use of personal electronic communication devices by the teachers in their interaction with students.

As we explored the incidents of abuse by teachers and other adults of students, we were forced to confront logistical aspects of teacher-student interaction that are somewhat different at an institution like LSD. One staff member described the issues associated with students going home on Fridays and returning to LSD on Sunday. Most are transported throughout the state by buses supervised by LSD staff and utilized by both LSD and the Louisiana School for the Visually Impaired. Staff reported that the “delivery system” can take hours upon hours to complete, and that often times, students arrive home only to find their house empty and lacking in a parental presence. In those circumstances, the use of electronic communication devices by students and teachers is not only warranted, but also can provide a necessary safety net in a potentially dangerous situation. That scenario and others provide ample justification for the use of modern technology for disabled students, but we must remain mindful of the potential pitfalls associated with the use of these tools. In regard to the teacher-student abuse, the personal communication device figured prominently in the alleged episodes and became the technique by which the “classic” grooming process took hold. If technology is to be our friend, we must continue to safeguard its appropriate utilization and monitor the potential abuses. To that end, we would suggest some kind of restriction of use coupled with “spot checks” of device histories to prevent the use ongoing inappropriate use of these devices.

10) Re-evaluate orientation and training programs for all staff, and include measurable criteria that can be tested at periodic intervals to ensure staff mastery of existing policies and procedures and ASL.

In the experience of the evaluators, staff training must be viewed as an on-going daily process that literally never ends. All too often we suspect that employees go through consolidated training programs that not only lack adequate time and information, but also never really assess the degree to which a new employee truly understands and internalizes the important information conveyed. In many cases the staff, regardless of how high functioning, may lack reading skills that enable them to adequately understand material that is being presented. As a result, we suggest post-presentation testing that

requires individuals to not only demonstrate a rudimentary understanding on the day the material is learned, but also, at specific intervals throughout the year.

Further, the necessity of being able to understand BASIC ASL prior to assuming a position of supervision of students is absolutely critical. The absence of this knowledge makes it increasingly impossible to understand what students are saying to them, and consequently, it becomes impossible to provide a safe and secure environment.

Lastly, the entire orientation and continuing education program must evolve from a cursory requirement to one of meaningful education of all staff at all levels. This is, by necessity, time consuming and costly, but at the same time, is probably the single most important aspect of staff improvement going forward.

11) Expand student based sex education program to promote age appropriate training regarding boundaries, abuse, reporting of abuse and sexual experimentation.

This is not intended to be a “how to” program on achieving satisfactory sexual pleasure. Rather, it is an anti abuse program that is geared to each developmental stage and is intended to de-mystify sexual behavior while providing valuable information regarding risks of sexual activity. It has been used throughout the country and should be adapted for use by Deaf educators. A necessary adjunct involves the participation of families and supervisors when appropriate.

12) Provide opportunity for anonymous reporting of concerns by both staff and students.

As described above, several teachers privately reported that they had “suspicions” about a particular student, but didn’t have any evidence to show, and therefore decided that there was risk if they decided to say anything to anyone. We fully embrace the concern and oppose any attempt to create a “witch hunt” type environment at LSD. At the same time, however, we are mindful of how reluctant everyone has become to getting involved and the importance of extending the watchful eyes and ears of management team over the entire school program. We would suggest consideration of a system similar to ones utilized throughout the United States by child care workers who will accept anonymous reports and investigate them to insure that no child is in danger. Though not a perfect system, it is a necessary cog in this wheel and we would support the hiring of a student advocate who is fluent in ASL and answers directly to the school Director.

13) Expand on-campus presence of senior clinicians (psychologist and/or psychiatrist) to provide guidance and professional supervision to psychological services staff.

It would be impossible to over-emphasize the importance of increased outside clinical involvement by senior clinicians who are conversant in child psychology, the use of psychotropic medications, development and successful management techniques in regard to group living with such a diverse population. At the current time, medical coverage, though better than it had been, is less than adequate, and despite a very dedicated and committed psychological support staff, there is a general dearth of senior supervision as well as an ongoing shortage of on-campus clinicians available to deal with the multitude of bio-psych-social concerns. The evaluators were struck by the lack of staff knowledge concerning psychotropic medications taken by many of the students, as well as with the inconsistencies in staff’s understanding of how to deal with commonly seen acting out behaviors. Although expansion of the training program will go a long way to improve this situation, the on-campus presence of senior outside clinicians is crucial with this fragile population.

14. Consider expansion of a more productive and viable vocational program that addresses the practical aspect of independent functioning post graduation.

Interestingly, Superintendent Pastorek had a strong reaction to this suggestion when initially presented to him, as it is his belief that to develop a vocational track is to essentially give up on the expectation that every student can learn in his or her own way. We certainly applaud his commitment to providing quality education to Deaf students and understand his reluctance to offer easy way outs. But we suggest this option not to stop shooting for excellence at LSD, but rather to acknowledge that in a population as diverse and complicated as the one at LSD, it is simply not realistic to expect more than a few of the students to be able to perform at levels necessary to achieve true high school graduation. As a result, we believe that creating realistic goals for each and every student fosters a sense of accomplishment and self satisfaction that is currently absent in both the student population and the teachers attempting to fit square pegs in round holes. To develop high quality vocational assessment and training programs is not only NOT a failure, but rather, would be a giant step forward in terms of improving morale of the employees and the self-esteem of the students.

IV. Summary

In regard to the question of whether or not there was a systemic problem at LSD that led to the original incidents alleged by The Advocate in their earlier articles, the evaluators felt that the school had followed all of its documented policies and procedures and could not be faulted for the unfortunate and inappropriate action of several teachers who were appropriately hired and supervised. That said, we are concerned with the general lack of standards necessary to administer a school program that is attempting to meet the needs of such a highly diverse and complex population.

On a positive note, however, we have found the attitude of the State Department of Education in general, and Superintendent Paul Pastorek in particular, refreshingly open to our concerns and input. Their ongoing commitment to full transparency and fundamental changes in the current system is encouraging. In addition, the nature of the commitment on the part of teachers and staff was notable, and despite consistent concerns raised by each and every group that we met with, the passion that everyone feels for the school was palpable and perhaps the most important predictor of future success.

Given the evident problems, and the potential cost in both dollars and manpower to address the issues, we are concerned that the State will be inclined to cut their losses by either disbanding the school and sending its students back to their inadequately funded, unprepared home districts, or alternatively, to turn the program over to an outside private educational firm that has little experience with Deaf education and culture.

It is our sincere hope that Louisiana will use this opportunity to invest the time, effort and resources in the rich history of LSD and in so doing, will become a model of how to address complex educational and social problems the right way. The fact that, of necessity, new approaches to age-old educational problems are being developed in New Orleans provides the perfect opportunity to utilize these same aggressively innovative ideas to the problems associated with Deaf education nationally, and LSD in particular.

January 31, 2008

Ex-student sentenced in rape case

"Victim blaming" by teachers and administrators at the New Mexico School for the Deaf partly explains why a former student accused of rape received a plea deal, a prosecutor said Thursday.

Jorge Chavez, 21, was sentenced to three years of probation Thursday, after he pleaded guilty earlier in the week to fourth-degree criminal sexual penetration and contributing to the delinquency of a minor.

Judge Michael Vigil and prosecutor Barbara Romo said the case was riddled with difficulties, including issues with interpreting sign language, the prospect of sentencing Chavez to a prison where he might not be able to communicate with anyone and the fact the victim's account varied greatly from the story Chavez told. Romo also said she was "shocked" by the attitude of administrators and teachers at the New Mexico School for the Deaf, several of whom showed up to support Chavez on Thursday.

One teacher said Chavez was not a rapist and, using the metaphor of an ocean, likened him to a powerful shark and the victim to "little algae," Romo said. Another teacher said she did not believe the victim had been raped because the girl was not acting like a rape victim and should have been shaking and vomiting, Romo said.

"For teachers and coaches to say things like they just flat-out don't believe what happened because Jorge was a popular kid on campus and (the victim) is not popular, she has low self-esteem, why would he rape her?" Romo said. "These are not peers. These are educators saying this."

Chavez's lawyer, Cindy Turcotte, disputed the prosecution's version of what happened, saying the sex between the victim and Chavez was consensual. Turcotte said the victim and Chavez had been dating at the time and "trying to decide whether to become boyfriend and girlfriend."

Among Chavez's supporters was football coach Robert Huizar, who said through an interpreter he did not believe Chavez raped the girl. "What happened with (Chavez) and (the victim) was a big mess," Huizar said. "And in my opinion, there was a lot of misunderstanding."

In October 2006, the victim, who was 15 at the time, told police Chavez, then 19, took her into a boys bathroom in the school's medical building and had sex with her after

she told him no several times, according to a statement of probable cause. The statement said Chavez admitted the girl told him no, but his lawyer disputed that version, saying the police were not properly trained to interrogate a deaf person.

There have been allegations of sex crimes at the School for the Deaf before. In the 1990s, several accusations surfaced, and in 2007, the school settled a lawsuit that involved three young students who said they were molested by another student who had a history of sexual misconduct that the school did nothing about. That lawsuit alleged school officials downplayed the abuse to the boys' parents and tried to cover it up.

Ronald Stern, superintendent of the school, said he could not comment about the Chavez case, but in an e-mail wrote that the school takes campus safety seriously. The school's 33-acre campus on Cerrillos Road serves hearing-impaired students from all over the state. About 150 students live on campus.

Stern said a visual public announcement system was installed in 2006, which deaf and hearing staff can use to alert security if anything happens.

"NMSD continues to team with other local and state agencies to educate our students and staff on personal safety and on timely reporting of any suspected abuse," he wrote. "There is nothing more important to the school than the well being of its students and personnel."

Judge Vigil said past sex crimes at the school concerned him when he presided over cases while he was a judge in Children's Court. "I think there was an admission, or realization, that the school was failing the children — that these incidents were being ignored, swept under the rug," he said of cases in the 1990s.

Vigil also said New Mexico should be ashamed Chavez spent 13 months at the Santa Fe County jail in virtual isolation because there was no one who could communicate with him in sign language.

"I'm appalled at the lack of services our county jail has for people who are incarcerated there who are deaf," he said.

The victim's mother read a letter the girl wrote in which she asked the judge to keep Chavez away from her. "When I got raped it made me sad and shocked me because I never thought about getting raped before," the girl wrote. "I want him away from me forever."

Through sign language and an interpreter, Chavez, who could be deported because he is a Mexican citizen, addressed the court in tears and apologized to the victim's mother. He said he wanted to dedicate his life to teaching deaf children.

"I've gone through a lot of suffering in the last year, and I've learned a lot," he said.

Contact [Natalie Storey](mailto:nstorey@sfnewmexican.com) at 986-3026 or nstorey@sfnewmexican.com.

EVENT TIMELINE

1992: A 16-year-old student at the New Mexico School for the Deaf claimed she was raped by a counselor after she asked him to unlock a closet where a vacuum cleaner was kept. The counselor was suspended from his post but reinstated in 1993.

1994: The mother of a 5-year-old Pecos girl reported the girl was raped at the School for the Deaf. A week later, officials from the school said the girl was actually hit on her lower groin area by a piece of playground equipment. No charges were filed.

1997: A 16-year-old student, William Kermude, was found guilty of rape after another student at the school said he raped her while they played a game of tag. The victim also said Kermude bragged about raping other girls.

1998: Sam Ramon, 18, a student at New Mexico School for the Deaf, admitted in juvenile court that he raped and molested an 11-year-old boy at the school.

2003: The families of three boys claimed their sons were molested by another student at the School for the Deaf who had a history of sexual misconduct. The school settled the lawsuit out of court in 2007.

2007: A 15-year-old student at the school said Jorge Chavez, at the time 19, raped her in the medical ward of the school. Chavez pleaded guilty to criminal sexual penetration and contributing to the delinquency of a minor this week.

October 31, 2008

Parents suing NMSD in rape case

"The parents of a girl who was raped two years ago at the New Mexico School for the Deaf are suing the school, its superintendent, principal and a counselor.

Sylvia and Alex Martinez claim that the school was negligent in handling reports of harassment against their daughter, eventually leading to her rape, according to the lawsuit filed Oct. 2 in state District Court. The couple are seeking compensatory and punitive damages of a "yet to be determined amount."

"Defendants failed to enforce and follow their own policies and procedures regarding sexual misconduct," the lawsuit states.

According to the suit, the couple's daughter reported in late August 2006 that Jorge Chavez "accosted her, tried to kiss her, and grabbed her crotch and her breasts."

The girl reported the incident to Patrick Ercolino, a counselor, and Terry Wilding, principal at the school, the suit states. She also told her mother, who went to the school the next day to see Wilding, where she "was assured that (her daughter) would be protected and that safeguards would be put in place."

On Oct. 17, 2006, the girl scheduled a meeting with Ercolino because "Chavez had continued to pursue and pressure her." Ercolino scheduled a meeting for the next day, and asked that Chavez be included, the suit states.

The following day, Oct. 18, when the girl and Chavez went to meet with Ercolino, he was not there. Then, "Chavez grabbed (the girl) by the arm and led her down the hallway and into the Boy's Ward."

"Chavez then started kissing her and taking his clothes off, pulling her into the bathroom. He forced her to take off her shirt. She told him 'no' and to stop more than once. She also physically struggled with him, but he did not stop touched her and did not let her leave." Chavez then raped the girl, according to the suit.

After the incident was reported, Chavez was arrested and eventually pleaded guilty to criminal sexual penetration and contributing to the delinquency of a minor. He served about 15 months in jail before being sentenced to three years in jail, for which he received credit, and three years of probation.

In response to the lawsuit, Superintendent Ronald Stern said in an e-mail that "allegations in a plaintiff's complaint are just that," and are "typically slanted to make the circumstances sound as extreme as possible."

As far as safety and security at the school, Stern wrote that "The school has a vigorous training program and

security protocols designed for student safety which are reviewed on a regular basis to update and refine." The school also regularly conducts training for staff and students, he wrote.

Safety and security, he wrote, "is consistently one of NMSD's highest priorities."

Contact John Sena at 986-3079 or jsena@sfnewmexican.com [<mailto:jsena@sfnewmexican.com>].



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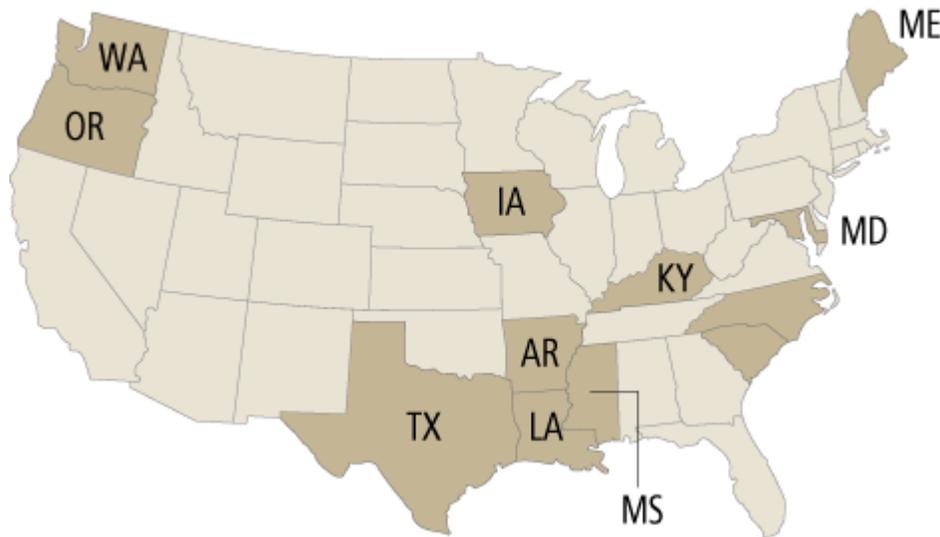
Seattle Post-Intelligencer

http://seattlepi.nwsourc.com/national/48259_deaftimeline27.shtml

Painful Legacy: A timeline

Tuesday, November 27, 2001

Across America, schools for the deaf have been embroiled in controversy stemming from the physical and sexual abuse of students. This P-I report focuses on three states, Oregon, North Carolina and Arkansas. But experts say nearly half of the nation's state-run schools have experienced similar problems. Some of the major incidents in the past 15 years:



- **AUGUST 1986:** Attorney general recommends \$2.5 million payment to settle suits filed by former students of Texas School for the Deaf, who were sexually abused by staff. Superintendent and security director plead no contest to failing to report abuse.
- **DECEMBER 1988:** Mississippi School for the Deaf superintendent fired for failing to protect students from widespread sexual and physical abuse. Seven current and former employees investigated.
- **FEBRUARY 1992:** Iowa pays \$550,000 to settle suit brought by former deaf school student, alleging sexual and physical abuse. State paid nearly \$2 million in 1988 to nine former students making similar claims.
- **APRIL 1993:** Two former staff members at South Carolina School for the Deaf pleaded guilty to sexually assaulting students.
- **FEBRUARY 1994:** State begins investigation at Kentucky School for the Deaf after three staffers and 19-year-old student are accused of sexual abuse. Task force recommends changes, including upgrading employees' sign-language skills.
- **JULY 1996:** Former dorm supervisor at Maine's deaf school sentenced to 18 days in jail for molesting three teenage students.

- **SEPTEMBER 1996:** Former priest gets 10-year prison term for molesting six deaf boys at Maryland School for the Deaf and Catholic Deaf Center. Police investigated after one victim's therapist reports abuse dating back to '70s.
- **JUNE 1998:** Two state agencies begin investigations into sexual abuse at North Carolina's three schools for the deaf; later order safety reforms.
- **FEBRUARY 2000:** State task force investigating sexual abuse at Louisiana School for the Deaf criticizes superintendent, recommends more staff training.
- **AUGUST 2000:** Former teacher at Central North Carolina School for the Deaf receives 45-day suspended jail term for molesting 15-year-old girl.
- **APRIL 2001:** Maine governor promises compensation to former students of Baxter School for the Deaf, who endured sexual and physical abuse in the '60s and '70s.
- **MAY 2001:** Arkansas School for the Deaf superintendent charged with hindering investigation of dorm supervisor accused of asking student for sex. Superintendent and supervisor plead innocent and are awaiting trial.
- **JUNE 2001:** Gov. Gary Locke orders sweeping safety reforms at Washington School for the Deaf after former students and staff claim they are victims of a longstanding pattern of sexual and physical abuse.
- **AUGUST 2001:** State pays \$125,000 to settle lawsuit by former student who says she was raped at Washington School for the Deaf. Five other suits alleging sexual abuse are pending.
- **NOVEMBER 2001:** Two former students of Oregon School for the Deaf publicly accuse former top administrator of sexually abusing them.

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**AN ACT RELATING TO EDUCATION;
ENACTING THE DEAF AND HARD-OF-HEARING CHILDREN'S EDUCATIONAL BILL OF RIGHTS.**

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF NEW MEXICO:

Section 1. SHORT TITLE.--This act may be cited as the "Deaf and Hard-of-Hearing Children's Educational Bill of Rights".

Section 2. FINDINGS AND PURPOSE.—

A. The legislature finds that:

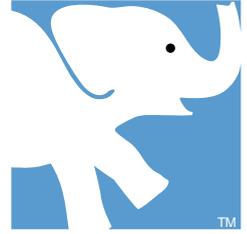
- (1) hearing loss affects the most basic human need, communication. Without quality communication a child is isolated from other human beings and from the exchange of knowledge essential for educational growth and, therefore, cannot develop the skills required to become a productive, capable adult and a fully participatory member of society;
- (2) children with hearing loss have the same innate capabilities as any other children. They communicate in a wide variety of manual and spoken modes, languages and systems. Some use aural/oral modes of communication, while others use a combination of aural/oral and manual communication. Many use American sign language, which is a formal language, as well as the preferred everyday language of the deaf community. Obviously, all children need to develop English proficiency; and
- (3) it is, therefore, critical that all New Mexicans work toward ensuring:
 - (a) deaf and hard-of-hearing children, like all children, have quality, ongoing and fluid communication, both in and out of the classroom;
 - (b) deaf and hard-of-hearing children be placed in the least restrictive educational environment and receive services based on their unique communication, language and educational needs, consistent with 20 U.S.C. Section 1414(d)(3)(B)(iv) of the federal Individuals with Disabilities Education Act;
 - (c) deaf and hard-of-hearing children be given an education in which teachers, related service providers and assessors understand the unique nature of deafness, are specifically trained to work with hard-of-hearing and deaf pupils and can communicate spontaneously and fluidly with these children;
 - (d) deaf and hard-of-hearing children, like all children, have the benefit of an education in which there are a sufficient number of age-appropriate peers and adults with whom they can interact and communicate in a spontaneous and fluid way;
 - (e) deaf and hard-of-hearing children receive an education in which they are exposed to deaf and hard-of-hearing role models;
 - (f) deaf and hard-of-hearing children, like all children, have direct and appropriate access to all components of the educational process, including recess; lunch; and extracurricular, social and athletic activities;

- (g) deaf and hard-of-hearing children, like all children, be provided with programs in which transition planning, as required under the federal Individuals with Disabilities Education Act, focuses on their unique vocational needs; and
- (h) families of children who are deaf or hard-of-hearing receive accurate, balanced and complete information regarding their child's educational and communication needs and the available programmatic, placement and resource options, as well as access to support services and advocacy resources from public and private agencies, departments and all other institutions and resources knowledgeable about hearing loss and the needs of children who are deaf or hard-of-hearing.

B. Given the central importance of communication to all human beings, the purpose of the Deaf and Hard-of-Hearing Children's Educational Bill of Rights is to encourage the development of a communication-driven and language-driven educational delivery system in New Mexico for children who are deaf or hard-of-hearing.

Section 3. EDUCATIONAL RIGHTS OF DEAF AND HARD-OF-HEARING CHILDREN--ADDITIONAL DUTY OF PUBLIC EDUCATION DEPARTMENT.—

- A. The state of New Mexico recognizes the unique communication needs of children who are deaf or hard-of-hearing and encourages the development of specific recommendations by all state agencies, institutions and political subdivisions concerned with the early intervention, early childhood and kindergarten through twelfth grade education of students who are deaf or hard-of-hearing, including the public education department, the New Mexico school for the deaf and the department of health, to ensure that:
 - (1) these children have what every other child takes for granted, including an educational environment in which their language and communication needs are fully addressed and developed and in which they have early, ongoing and quality access to planned and incidental communication opportunities; and
 - (2) the recommendations, consistent with the findings and purpose of the Deaf and Hard-of-Hearing Children's Educational Bill of Rights, be completed expeditiously.
- C. Since 20 U.S.C. Section 1414(d)(3)(B)(iv) of the federal Individuals with Disabilities Education Act requires that the individual education plan team consider the unique communication needs of children who are deaf or hard-of-hearing, the public education department shall develop a model "communication considerations for students who are deaf or hard-of-hearing", to become part of the individual education plan process. The model shall be disseminated to all local school districts, with training to be provided as determined by the department.



**Breakthrough
to Literacy**

The
New
Three
Rs

Research
Reading
and
Results

Table of Contents

Abstract page 1

Methods:

The *Breakthrough to Literacy*™ Process page 3

University-Based Research

1. Linking Oral Language to Print / page 6

Integrating Technology

2. From Laboratory to Classrooms / page 9

Balanced Instruction for Each Child

Effective Teacher Support

Support for Early Literacy Learning

3. Partners for Results / page 20

Results page 22

Increases in Critical Developmental Skills / page 23

Prekindergarten Results

Kindergarten Results

First-Grade Results

Writing as an Indicator of Success

Breakthrough to Literacy and English as a Second Language

Longitudinal Impact / page 41

Discussion and Conclusions page 45

More Praise From Educators page 46

References page 49

Abstract



Research in school districts throughout the United States clearly shows that children who use *Breakthrough to Literacy*[™] achieve significant and lasting improvement in their reading skills.

At virtually every site studied where implementation criteria were met, children who participated in *Breakthrough* demonstrated marked increases in critical developmental areas, such as vocabulary, phonemic awareness, alphabet knowledge, word recognition, and language and writing skills, as measured by a number of widely accepted assessment tools. Improvements were noticeable across socioeconomic lines — for example, in districts with high percentages of children who receive free or reduced-cost lunches as well as in those with high percentages of affluent families.

Longitudinal data confirm that *Breakthrough to Literacy* provides a strong foundation for continued achievement. First-, second-, and third-grade children who previously had used *Breakthrough* performed substantially better on standardized tests and state standards assessments than did those who had not participated in the program. Children who had used *Breakthrough* in kindergarten were retained less frequently in first, second, or third grade than children who had not used the program.

Developed through almost two decades of research in clinical and classroom settings, *Breakthrough to Literacy* is a unique process that helps children make an effective and confident transition from spoken language to print. The program provides a conceptual framework of language and literacy based on the best perceptual/behavioral and environmental predictors of reading

Breakthrough to Literacy almost wraps its arms around you. You cannot fail.

Helen Jones
Executive Director
Elementary Education
Richland District I
Columbia,
South Carolina

achievement, while incorporating a view of “balanced” literacy that has practical, instructional significance for each child. This framework drives the program’s curriculum, instruction, and individualized, computer-based assessment.

In the classroom, *Breakthrough* translates the conceptual framework into four essential instructional practices that provide rich experiences with the predictors of early reading achievement. These practices include Book-of-the-Week oral comprehension activities, daily writing, regular use of the Take-Me-Home™ books, and daily work in the software curriculum.

To a great extent, results achieved through *Breakthrough to Literacy* are related to the quality of the program’s implementation at each site. For this reason, the *Breakthrough* process also includes extensive training and support to build strong partnerships among teachers, administrators, and their *Breakthrough* team.

Both formal and anecdotal evidence indicate a high level of satisfaction with *Breakthrough to Literacy* among teachers, children, parents, and administrators.

Breakthrough to Literacy ... helps me create a balanced literacy program in my classroom that is developmentally appropriate ... What more could a teacher ask for?

**Bronwyn
McLemore**
Former First-Grade
Teacher

Visiting Instructor
University of
North Florida

Methods: The *Breakthrough to Literacy*™ Process



Breakthrough to Literacy is a research-based, comprehensive program that helps young children, prekindergarten through second grade, develop the foundations for reading success. *Breakthrough* helps teachers create classrooms where children become engaged with language and print in a natural and positive way. As a result, children learn not only to read but to enjoy the experience of reading. In school districts throughout the United States, *Breakthrough* has demonstrated consistently successful results, even in classrooms where socioeconomic or other factors could have affected children's achievement.

Developed by Carolyn Brown, Ph.D., while she was a research scientist in the Department of Speech Pathology and Audiology at the University of Iowa, *Breakthrough to Literacy* is built on a strong conceptual framework that combines behavioral predictors of language and literacy with the environmental predictors of reading success. The program guides both students and teachers through this conceptual framework with the aid of a well-tested process that includes *Breakthrough's* curriculum, instructional activities, and computerized assessment.

Confirmation and Resources

Later research into the precursors to competent, confident reading has confirmed the foresight of Dr. Brown's methods. (See Adams, 1990; Snow, Burns, and Griffin, 1998.)

For example, recent research has shown that, to learn to read, a child must develop an awareness of spoken language (phonological awareness) and be able to understand the concept of "word." The child must know that words can be broken into syllables and that sounds can be separated, blended, and rearranged. (See Adams and Bruck, 1995; Bradley and Bryant, 1983; Liberman et al., 1974; Treiman, 1985.)

In fact, a child's sensitivity to the sound structure of speech is held by many to be the strongest single predictor of success in learning to read or, conversely, of failure to learn to read. (See Blachman, 1984; Juel, 1991; Stanovich, 1986. See also Adams and Bruck, 1995, for a general discussion.) The model for the development of phonological awareness incorporated into the *Breakthrough to Literacy* program has been corroborated by Dr. Vicki Snider of the University of Wisconsin at Eau Claire (Snider, 1995) and others.

In my 22 years of teaching, I've never been blessed with a class of first graders so ready to read.

Sharon Palmer
First-Grade Teacher
Ernest Horn
Elementary School
Iowa City,
Iowa

University-Based Research

Breakthrough to Literacy is the product of two decades of research in clinical and classroom settings. Over that time, investigations by Dr. Brown and her team focused on three questions that she believed held the keys to early literacy education:

1. How do children make the link between oral language and print?
2. How can teachers incorporate appropriate tools into ongoing classroom activities to create effective early literacy environments that meet the needs of children from diverse backgrounds?
3. How can principals and other administrators help teachers build successful readers and learners?

Dr. Brown's search for the answers to these questions shaped the three phases in the development of *Breakthrough to Literacy*.

Case Study: Garrett

Garrett, a seven-year-old second grader, met Dr. Brown in 1981. An intelligent and personable youngster, he had done well in school until he had to deal seriously with print. Despite considerable special assistance provided by his school, his reading had not improved, causing frustration and concern to Garrett and his family. At the time Garrett began working with Dr. Brown, he performed below the 5th percentile in the reading subtest of the *Iowa Tests of Basic Skills* (ITBS).

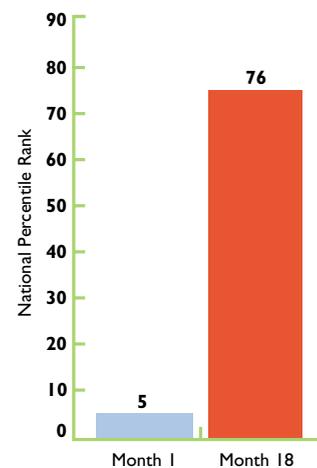
Almost every day for 18 months, Garrett visited Dr. Brown's laboratory at the Wendell Johnson Speech and Hearing Clinic on the University of Iowa campus in Iowa City. During that time, he became Dr. Brown's collaborator in a very real sense, wearing a white lab coat and acting as her research assistant.

In their sessions, Dr. Brown first set out to discover how Garrett had learned what he already knew about the relationship between sounds and written symbols. Observing that these associations were difficult for him, she and her colleagues developed interactive computer modules that let Garrett control the flow of the sound, picture, and print information he received. The software tracked his responses and identified his successful learning strategies. As Garrett began to build associations among sound, print, and meaning, the researchers developed software algorithms to make his learning more efficient.

In the comfortable, safe, and private laboratory environment, Garrett was immersed in language and print experiences that were both rich and diverse. He listened to stories, made up his own, wrote and recorded them, and edited his work. With the tools Dr. Brown provided, he explored language and print at his own pace and gradually began to make connections between them. He actively began to engage with print and became excited about its possibilities.

To those who had known Garrett during his earlier struggles with reading, his progress was, indeed, a breakthrough. In 18 months, Garrett climbed from below the 5th percentile to the 76th percentile on the ITBS (*Figure 1*). He developed phonemic awareness, learned the alphabetic principle, and was able to associate sounds and symbols. He loved stories, was no longer intimidated by print, read for comprehension, and became a lifelong reader and learner.

Figure 1
Garrett's Scores on the
Iowa Tests of Basic Skills
Reading Comprehension Subtest



I. Linking Oral Language to Print

In her laboratory at the Wendell Johnson Speech and Hearing Clinic on the University of Iowa campus, Dr. Brown first identified the steps children must take to move from oral language to print.

Her research clearly showed that children need to acquire the skills and knowledge that form what have become the well-known perceptual/behavioral predictors of reading achievement:

- enhanced oral language and vocabulary;
- phonological/phonemic awareness;
- knowledge of the alphabetic principle; and
- word-recognition skills.

Investing thousands of hours, Dr. Brown and her team developed computer modules that let children control the informational support they needed to make the transition, at their own pace, from sound and images to print. While gently moving young students along the continuum of phonological awareness — from words in sentences to syllables to onsets and rimes to phonemes — her computer program enabled them to wean themselves from sound and picture cues until they were reading text alone.

Dr. Brown's early research also led to computer-based tools to assess what children already knew about reading and where they needed help. Using multimedia software, she tracked and recorded each child's success in moving from oral language to print so she could provide appropriate support as the child needed it.

Because children received the individualized support they needed, they began to view themselves as effective, rather than struggling, readers. The self-paced, individualized lessons and the focus on achievement rather than failure energized and motivated the children with whom Dr. Brown worked. Children viewing themselves as successful became a hallmark of *Breakthrough to Literacy*.

If you use
Breakthrough, you
can teach anybody
to read.

Regina Boyd
Kindergarten Teacher
Collinswood School
Charlotte,
North Carolina

Integrating Technology

Between 1981 and 1988, Dr. Brown and her team worked intensely with individual children in her laboratory to investigate further how early learners use sounds, pictures, and text and to determine what learning strategies would best support them. Her research confirmed that, to develop the motivation and focus to learn, all children need ample — but varying — exposure to specific experiences that help them make the transition from spoken language to print. These experiences include:

- substantial and meaningful lap-reading time — listening to and “reading” along with an adult;
- experience exploring the structures of language and print;
- sufficient private time in which to explore the experience of reading;
- auditory and visual support to learn sound/symbol relationships (phonics); and
- many opportunities to feel successful in interactions involving reading.

Dr. Brown was convinced that no one-size-fits-all, formulaic approach could ever be effective for the complex and highly individualized process of early literacy education. She recognized, for example, that young children have different learning styles for gaining the precursor skills for reading, such as internalizing the structure of language, developing phonological and phonemic awareness, building vocabulary, learning sound/symbol relationships, and understanding the structure and function of print.

She also was aware that children need to progress at their own pace and in their own ways as they discover, explore, and internalize those vital relationships between oral language and

print. For example, some children need extensive, explicit experiences in associating sounds with printed letters, while other children make the associations with less explicit help.

Appreciating that the computer afforded the best means to present personalized material to children and to track their individual responses, Dr. Brown nonetheless was determined to avoid the distractions, such as overactive graphics and rapidly changing video screens, that are common to much educational technology.

Dr. John Manning, past president of the International Reading Association and professor of reading at the University of Minnesota, recognized the success of these efforts. According to Dr. Manning, “*Breakthrough to Literacy* is designed to help children seriously attend to print, which is the only way to develop confident and comfortable readers. Somehow, someone resisted the temptation to show off technology.”

2. From Laboratory to Classrooms

Applying Dr. Brown's methods in the larger context of the classroom was a logical next step, but it presented some challenges. The greatest was one of scale: How could the focused attention and positive expectations that proved so helpful in the laboratory be replicated daily in a typical public school classroom full of young children?

Research in the growing discipline of early literacy provided an important clue. Findings from a number of studies strongly suggested that certain home and environmental factors played determining roles in reading development. Young children who grew up in homes rich in language and reading material, where parents talked with their children and read to them often, were far more likely to develop the perceptual/behavioral predictors of reading achievement and go on to become successful readers. Conversely, children who were raised in environments where such experiences were not available were much more likely to fail when they attempted to learn to read.

From their studies, researchers identified specific environmental factors that, like their perceptual/behavioral counterparts, predicted reading success. These factors include:

- spending substantial lap-reading time with an adult;
- being around adults who read;
- having access to books in their homes;
- having books of one's own; and
- talking and listening with family and friends in the home.

Predictors of Reading Achievement

Home/Environmental

Hours of Lap Reading
Hours of Parents Reading
Books in the Home
Books the Child Owns
Oral Language in the Home

Perceptual/Behavioral

Vocabulary
Phonological/Phonemic Awareness
Alphabet Knowledge
Word Recognition

As they began to adapt and implement their laboratory model in local classrooms, Dr. Brown and her team observed that successful teachers communicated to students, through words and actions, the importance of language and print. These teachers guided children in activities that purposefully explored the meaning of language and its relationship to print. They also encouraged children to work on their own — to spend time with books and stories, to read at their own levels of development, and to speak with and listen to others. As a result, the students not only developed the critical perceptual/behavioral predictors of reading success, they also began, at very early ages, to see themselves as successful readers.

Teachers in these successful classrooms motivated students to participate in a coherent and systematic classroom structure integrating speaking, listening, reading, and writing. They helped students build their oral language skills and move comfortably and confidently to understand the structure and meaning of print. Dr. Brown used what she learned from these successful teachers as she developed the curriculum and classroom implementation model that later became *Breakthrough to Literacy*.

Figure 2 portrays the teacher's central role in the *Breakthrough to Literacy* classroom structure. The

integrating framework that links *Breakthrough's* essential practices with other reading and writing activities is described on the following pages.

Figure 2
The Teacher Is at the Center of *Breakthrough's* Integrated Curriculum



Balanced Instruction for Each Child

While the “great debate” between phonics and “whole-language” raged, Dr. Brown’s research focused attention on the developmental needs of each child. In meeting these needs, she gave practical significance to the term “balance” — at the level of the child.

The cornerstone of Dr. Brown’s approach involves moving each child from understanding oral language to understanding the meaning and structure of print. Each child learns at his or her own pace. Reading comprehension is ensured by systematic instruction on foundational word-recognition, oral vocabulary, and language skills.

Dr. Brown arrived at a model of balanced literacy that recognizes the role played by four key predictors of reading achievement as children master both the meaning and the structure of language. *Figure 3* illustrates this very practical view:

- The vertical axis, with the predictors Word Recognition and Vocabulary, illustrates a child’s awareness of **meaning** in both oral language and print.
- The horizontal axis, with the predictors Phonological/Phonemic Awareness and Alphabet Knowledge, reflects the child’s knowledge of **structure** — specifically, phonemic awareness and the relationship between sounds and symbols and the alphabetic code.

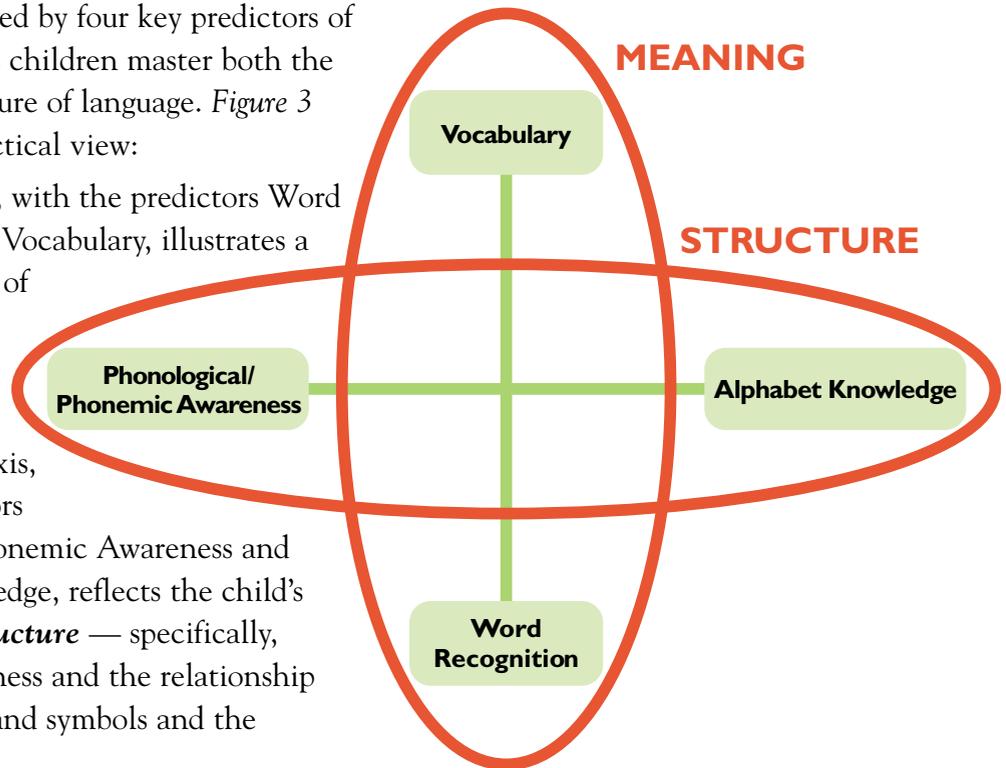
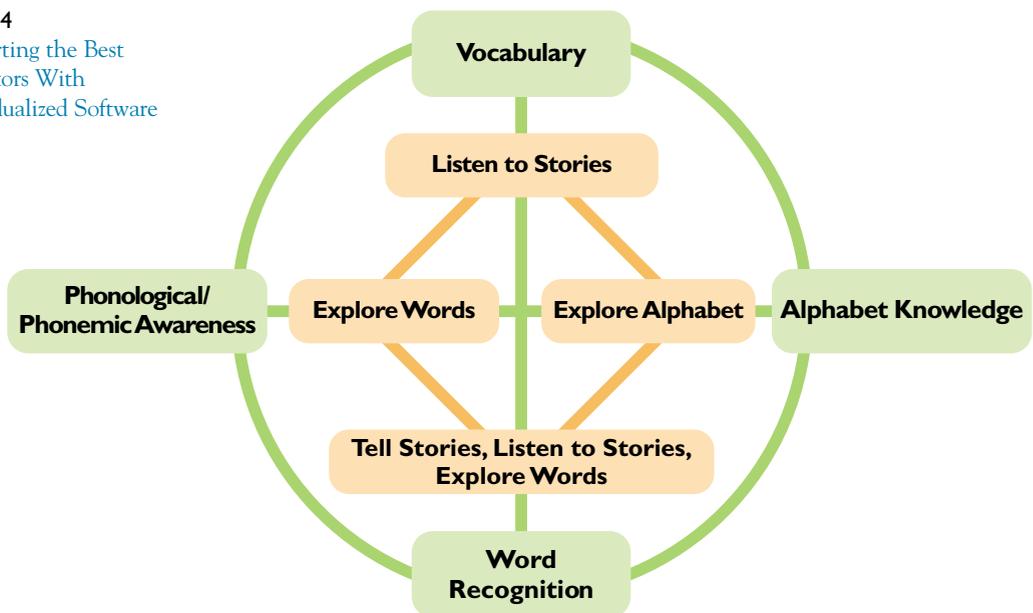


Figure 3
Breakthrough’s Practical
View of “Balance”

Based on this model, Dr. Brown developed the conceptual framework that enables *Breakthrough* to lay a comprehensive early literacy foundation in the classroom, while providing children with instruction targeted to their individual needs. The framework moved the discussion of early literacy away from the great debate (whole language vs. phonics) and focused attention on the critical, unique developmental needs of each child.

Breakthrough's software curriculum is a key tool in this process. *Figure 4* shows the relationship among the four instructional components — Listen to Stories, Explore Words, Explore Alphabet, and Tell Stories — and the best predictors.

Figure 4
Supporting the Best
Predictors With
Individualized Software



Listen to Stories provides the child “lap-reading” experiences as he or she listens to the stories read aloud by engaging speakers. Self-directed exploration of words and sentences within stories provides wonderful experiences with language and meaning. **Explore Words** allows the child to listen, blend, segment, and recognize words and sentences broken into different language units: syllables, onsets and rimes, or sounds. This component provides children experiences with the structure of language at each child’s developmental level. **Explore Alphabet** provides unlimited experiences for the child as he or she learns the letter names and the associated sounds. **Tell Stories** allows the child to experiment and practice reading aloud using a microphone and then comparing his or her own production to the model on the computer.

In experiencing these four activities, students are building their vocabulary, phonological and phonemic awareness, alphabet knowledge, and word-recognition skills. Each child’s progress is individualized and self-paced. The software also tracks individual responses and enables teachers to determine how best to support each child’s growth.

In the classroom, *Breakthrough*'s conceptual framework integrates the perceptual/behavioral predictors of reading success with the equally important home/environmental predictors. *Breakthrough* helps teachers build these integrated elements into daily activities through four essential instructional practices (Figure 5).

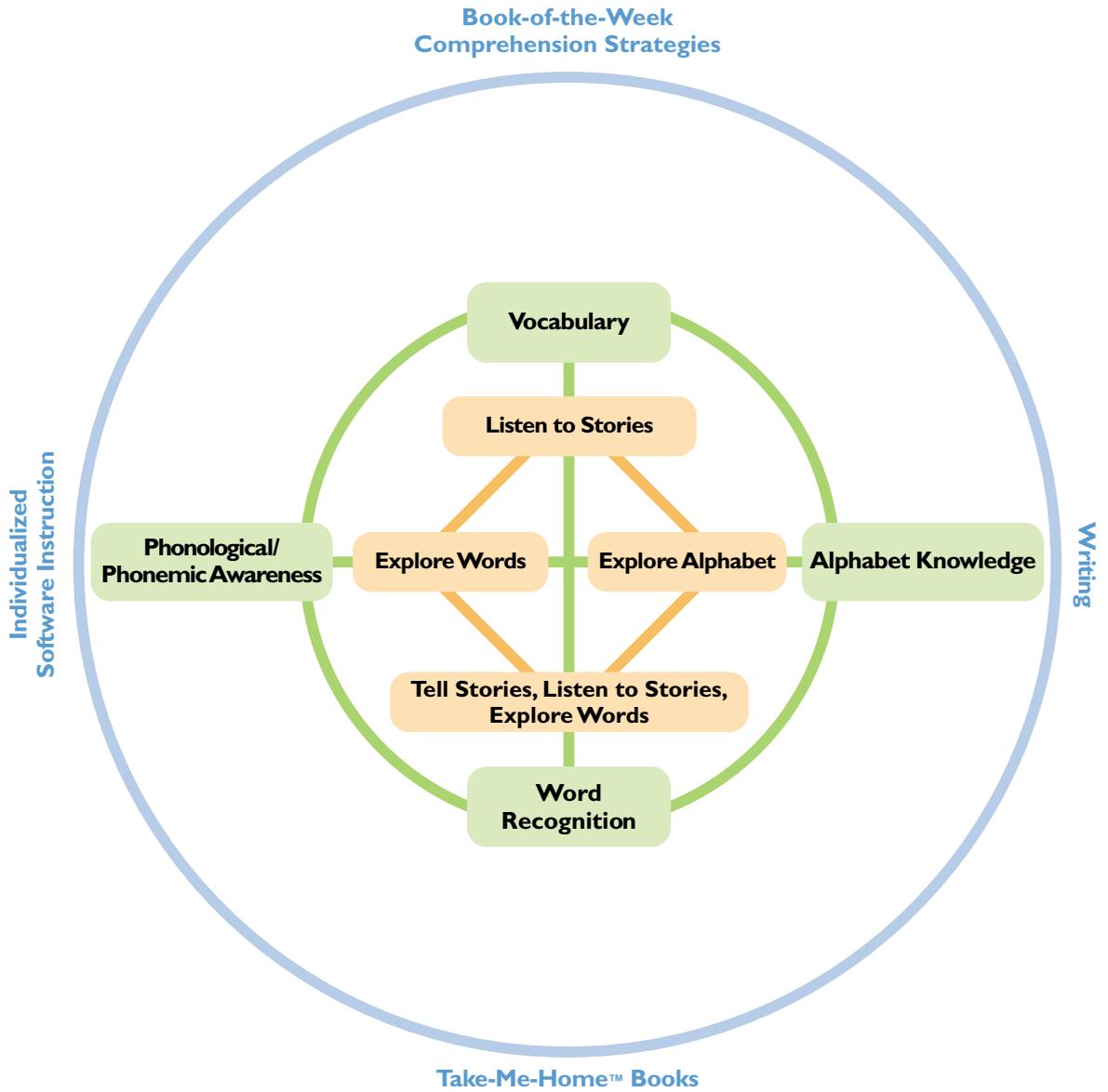
■ **Book-of-the-Week Comprehension Strategies.**

Each week, the teacher selects one *Breakthrough to Literacy* title to read aloud every day for a different purpose. The focus on Mondays is Predict and Read; on Tuesdays, Remember, Retell, and Read; on Wednesdays, Read, Integrate (personalize), and Read Again; on Thursdays, Read and Create; and on Fridays, Read, Summarize/Analyze, and Celebrate.

Children are encouraged to read each story by themselves, too, both in print and on the computer. The teacher provides both whole-class and small-group instruction related to text structure and meaning. (*Breakthrough*'s software reports help teachers group the children in appropriate skill levels.) By the end of the week, children know the book well and can read (or “read”) it independently.

■ **Writing.** Even very young children write by making marks or drawing pictures. As they learn to make the connection between spoken language and print, they produce increasingly sophisticated written and pictorial records of their thoughts and ideas. The practice of daily writing encourages children to value their own print production and to practice the sound/symbol connections they observe in the software and the books. Daily writing also provides the teacher with insights into each child's stage of development in the reading/writing process.

Figure 5
Supporting the Best
Predictors
With Daily Essential
Practices



Our *Breakthrough* program is very successful with our children!

Harold Fuller, Ph.D.
Principal
Holmes Elementary
School
Mesa,
Arizona

- **Take-Me-Home™ Books.** One predictor of reading success is having books and participating in reading activities in the home. For each Book-of-the-Week, every child receives a personal Take-Me-Home book to keep. During the week, children use their Take-Me-Home books in classroom activities, such as writing alternative endings to a story, reading the story to peers, or identifying frequently used words. After a week of reading and working with the Book-of-the-Week, both in print and on the computer, children know the story well enough to take their books home and share them with their families. This brings parents into the child's literacy experience and encourages the use of language and discussion at home — activities that are predictors of reading comprehension.
- **Individualized Computer Instruction.** Research shows that most children who become successful readers spend 1,000 hours or more in lap-reading experiences (Adams, 1990). Although it cannot replace time spent with a caring adult, *Breakthrough's* software replicates the all-important rehearsals with symbols and sounds as children listen to and read stories as many times as they wish. Because *Breakthrough's* software curriculum is based on the perceptual/behavioral predictors of reading success, children also gain practice in the basic skills they must master to become successful readers.

Each child's progression through the lessons is tailored by the software to meet his or her individual needs. For example, a child may start a lesson with full auditory and visual support. These cues automatically drop away as the child experiences success. If needed, they reappear, providing just the amount of support the child needs. In addition, *Breakthrough's* branching curriculum provides virtually unlimited opportunities for success as a child gains mastery over the lesson concepts.

What makes *Breakthrough* so unique is the quality of the professional development.

Mark Tavernier
Senior Director
Communication Skills
Norfolk, Virginia
Public Schools

Effective Teacher Support

To implement and maintain a culture supportive to reading, teachers need both professional development and specific tools, including materials and ways to integrate literacy into all classroom activities.

Breakthrough's highly skilled, certified literacy coaches provide comprehensive training and support to partnering teachers and administrators. Focusing on the perceptual/behavioral and home/environmental predictors of reading achievement that comprise *Breakthrough's* conceptual framework, this professional development includes three days of on-site training in the first year, plus an additional training day the second year. In addition, the literacy coach makes five to nine classroom visits the first year and four to seven visits the second year.

Like most successful teachers, who incorporate assessment into their teaching, *Breakthrough to Literacy's* interactive software curriculum generates ongoing reports of each child's progress. The program also provides teachers with in-depth training in interpreting and using the *Breakthrough* reports to customize instruction.

In addition, *Breakthrough to Literacy* provides schools and teachers with a set of tools based on the program's conceptual framework. These tools include:

- **extensive teacher resources**, including suggestions for small- and large-group lessons, and other multidisciplinary materials that complement existing curricula and classroom themes;
- **integrated technology**, including 4,500 interactive software lessons that provide individualized instruction for students and immediate feedback for the teacher; and

- **engaging student materials**, including Big Books for teachers to read with the class, full-color pupil books for individual classroom reading, and Take-Me-Home books for children to build their own libraries.

Support for Early Literacy Learning

Because early reading success grows out of effective environments for early literacy in homes and classrooms, *Breakthrough* also offers extensive, personalized support for parents, teachers, and school administrators:

- **home support**, including print material and videotapes that show parents how to encourage a child's reading and writing, an in-school information session, and customized computer printouts for parent-teacher conferences;
- **administrative support**, including conferences with school leaders to lay the foundation for a long-term partnership with a shared vision of expectations; and
- **technical support**, including a toll-free hot line.

For their part, schools and districts commit to establishing the local learning and administrative conditions that encourage early literacy. These conditions include visible support and involvement of principals and other leaders, sufficient time and resources for professional development, a focus on results to improve student achievement, and a willingness to share with a growing network of educators their “best practices” strategies for using *Breakthrough*.

3. Partners for Results

Most school initiatives fail because of improper implementation or lack of support within the school organization. For change to be successful in any group, including schools and classrooms, it takes leadership, proper expectations, and a shared vision of the goal and the process for getting there. Today's organizational theorists and business consultants now recognize that initiatives for change also benefit from well-functioning teams (Senge, 1990).

To identify the variables associated with successful implementations, Breakthrough to Literacy engaged an education consulting company to conduct quality-assurance visits with principals and teachers in more than 150 classrooms in several school districts, comparing formative assessments with objective performance measures. The message from these evaluations was clear: Strong administrative involvement and leadership, proper expectations, and follow-through are correlated highly with program success.

Key indicators of success include:

- ongoing discussions among all team members (administrators, teachers, and the *Breakthrough* support staff);
- a commitment by principals and teachers to make early literacy a priority;
- effective professional development for teachers and principals;
- in-classroom support by a highly trained, certified literacy coach; and
- appropriate assessment.

Studies similarly confirmed that principals need to understand the role and process of *Breakthrough to Literacy*. The more principals know about the program, the better they can monitor its effectiveness as well as support, encourage, and coach teachers toward successful implementations.

In short, the quality-assurance studies underscore the importance of a well-established partnership between Breakthrough to Literacy, Inc., and classroom teachers and administrators. When such partnerships are in place, *Breakthrough to Literacy* students and teachers achieve maximum results.

Results



Assessment Tools

Research on *Breakthrough to Literacy* has focused on the predictors of early literacy as assessed by several well-established and reliable tools. The following assessment tools are used most often:

- *Observation Survey*, Clay, 1993;
- *Test of Phonological Awareness (TOPA)*, Torgesen and Bryant, 1994;
- *Yopp-Singer Test of Phoneme Segmentation*, Yopp, 1995;
- *Peabody Picture Vocabulary Test (PPVT)*, American Guidance Service, 1997;
- *Iowa Tests of Basic Skills, Form M (ITBS)*, Riverside Publishing Company, 1996;
- *Metropolitan Achievement Tests, Seventh Edition (MAT-7)*, The Psychological Corporation, 1993;
- *Metropolitan Readiness Tests (MRT)*, The Psychological Corporation;
- *TerraNova*, CTB/McGraw-Hill, 1997, 1999;
- *Preschool Work Sampling System*, Meisels et al., 1994; and
- children's writing samples.

Other measures of longitudinal effects are reported using indicators such as:

- retentions at first, second, and third grades; and
- performance of third graders on high-stakes state tests.

From the beginning, Dr. Brown and her colleagues have used the results achieved at *Breakthrough to Literacy*™ sites across the United States to evaluate, develop, and refine the program. Schools have undertaken assessments to determine the following:

- the impact on test scores in *Breakthrough to Literacy* classrooms;
- the longitudinal impact of *Breakthrough to Literacy*;
- teacher reactions to the *Breakthrough* program; and
- effective implementation strategies.

Results of many of these studies are presented in this report.

One important element in the success of any *Breakthrough to Literacy* implementation is how well a teacher knows and understands the program's curriculum and instructional practices. For this reason, ongoing professional training and support are essential elements of every *Breakthrough* implementation (see page 18).

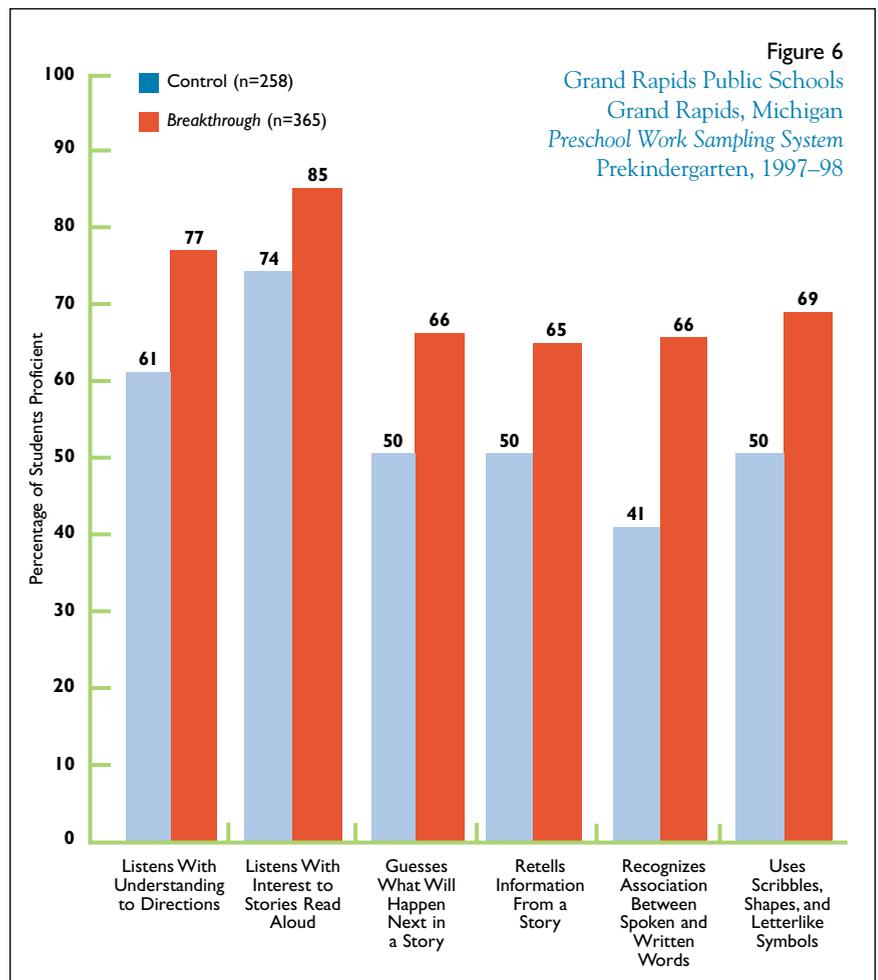
Increases in Critical Developmental Skills

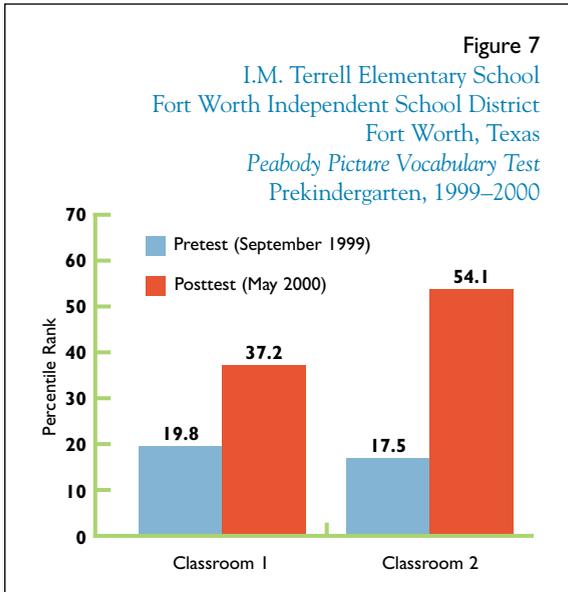
Research at diverse *Breakthrough* sites documents significant improvements in critical developmental areas such as vocabulary, phonological/phonemic awareness, alphabet knowledge, word recognition, and language and writing skills. Evaluators noted positive results at each grade level — prekindergarten through early elementary.

Prekindergarten Results

Grand Rapids, Michigan: Increased proficiency in language and literacy skills in 19 classrooms

During the 1997–98 school year, Grand Rapids Public Schools administered the *Preschool Work Sampling System* (Meisels et al., 1995) in 19 *Breakthrough* prekindergarten classrooms and in a set of control classrooms to assess developmental behaviors critical to school success. In each category studied, the percentage of students found to be proficient was substantially higher for the *Breakthrough* classes than for the control classes (*Figure 6*).

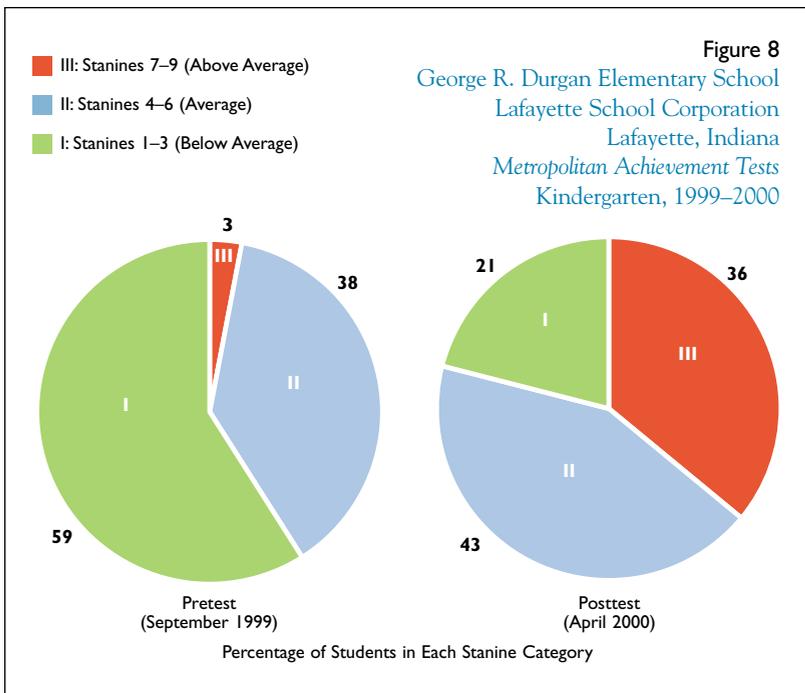




Fort Worth, Texas:
Dramatic increases in vocabulary and phonemic awareness

Many schools have measured vocabulary and phonemic awareness to assess the impact of *Breakthrough to Literacy* on prekindergarten children.

Figure 7 shows classroom results from I.M. Terrell Elementary School, where *Breakthrough* students had dramatic score increases on the PPVT.



Kindergarten Results

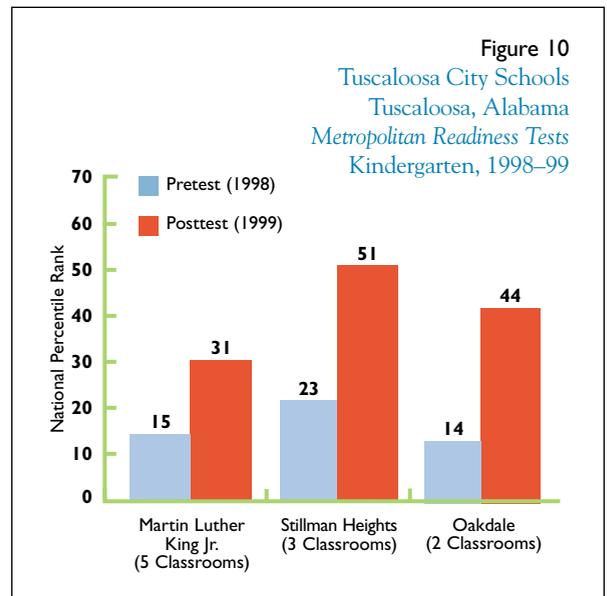
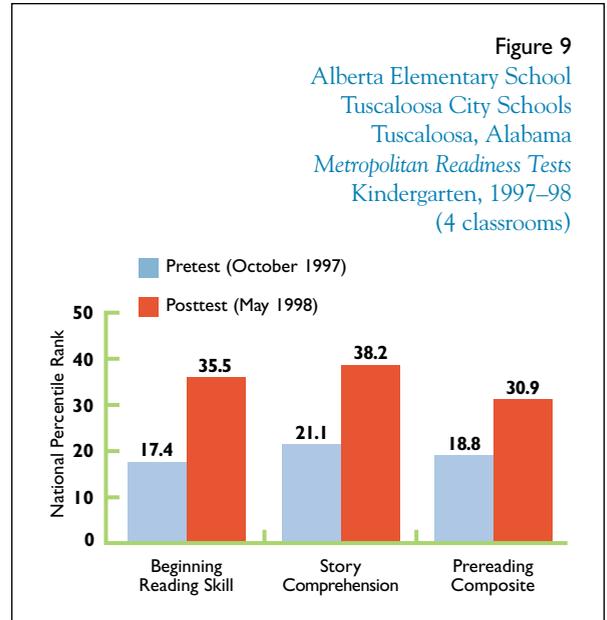
Lafayette, Indiana:
“Above average” progress

The percentage of kindergartners at Durgan Elementary School who scored above average on the MAT-7 rose from 3 percent prior to implementation to 36 percent after using *Breakthrough*. After implementation, the number of children scoring below average dropped from 59 percent to 21 percent (Figure 8).

**Tuscaloosa, Alabama:
Extending the program**

In 1997, Tuscaloosa City Schools implemented *Breakthrough* in Alberta Elementary School’s kindergarten. By the end of the school year, the children’s national percentile rank increased by 18.1 points in Beginning Reading Skill, 17.1 points in Story Comprehension, and 12.1 points in the Prereading Composite (*Figure 9*).

Based on the children’s improved scores on the *Metropolitan Readiness Tests*, *Breakthrough to Literacy* was implemented in three additional elementary schools the following year. *Figure 10* shows that in 1998–99, the national percentile rankings of students at Martin Luther King Jr. and Stillman Heights increased twofold, and the national percentile rankings of students at Oakdale increased threefold.



East Chicago, Indiana: Skills sustained over summer

School City of East Chicago has undertaken an extensive assessment of the longitudinal impact of *Breakthrough to Literacy* on kindergartners, using results from 1997 through 2000 (ongoing). *Figure 11* shows the fall results for 280 entering first graders who had used *Breakthrough* in kindergarten compared with a matched control group of approximately 300 non-*Breakthrough* students. For each subtest of the *TerraNova*, including those testing mathematical and

spatial concepts, the *Breakthrough* students scored substantially higher than did the non-*Breakthrough* students.

Although *Breakthrough* is not a mathematics program, improved mathematics and spatial scores are quite common. Other results reported by School City of East Chicago demonstrated that use of the *Breakthrough* program was more predictive of success than whether a child was in a half- or full-day kindergarten or was monolingual in English or Bilingual (*Figure 12*). (*Breakthrough's* impact on Bilingual students in East Chicago is discussed on page 39.)

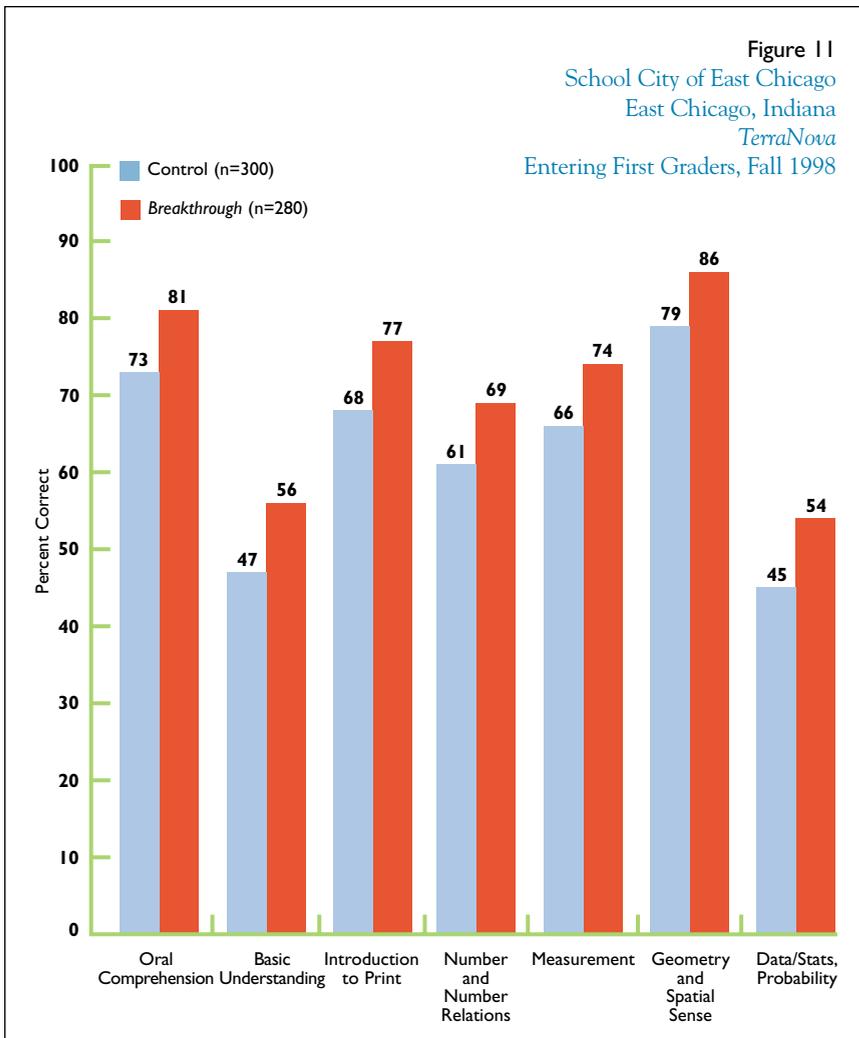


Figure 12
 School City of East Chicago
 East Chicago, Indiana
 Analysis of TerraNova Data
 Kindergarten, 1997–98

Student Performance

(Percentages indicate number correct on subtests)

Full-Day vs. Half-Day Kindergartens

	Oral Comprehension	Basic Understanding	Introduction to Print	Number and Number Relations	Measurement	Geometry and Spatial Sense	Data Analysis, Statistics, and Probability
Full Day	76%	51%	72%	66%	70%	82%	51%
Half Day	79%	51%	72%	63%	69%	81%	45%

Monolingual vs. Bilingual Kindergartens

	Oral Comprehension	Basic Understanding	Introduction to Print	Number and Number Relations	Measurement	Geometry and Spatial Sense	Data Analysis, Statistics, and Probability
Monolingual	76%	52%	73%	66%	70%	82%	50%
Bilingual	78%	49%	71%	64%	69%	82%	48%

With *Breakthrough* vs. Without *Breakthrough*

	Oral Comprehension	Basic Understanding	Introduction to Print	Number and Number Relations	Measurement	Geometry and Spatial Sense	Data Analysis, Statistics, and Probability
<i>Breakthrough</i>	81%	56%	77%	69%	74%	86%	54%
Without <i>Breakthrough</i>	73%	47%	68%	61%	66%	79%	45%

Bilingual Kindergartens With *Breakthrough* vs. Without *Breakthrough*

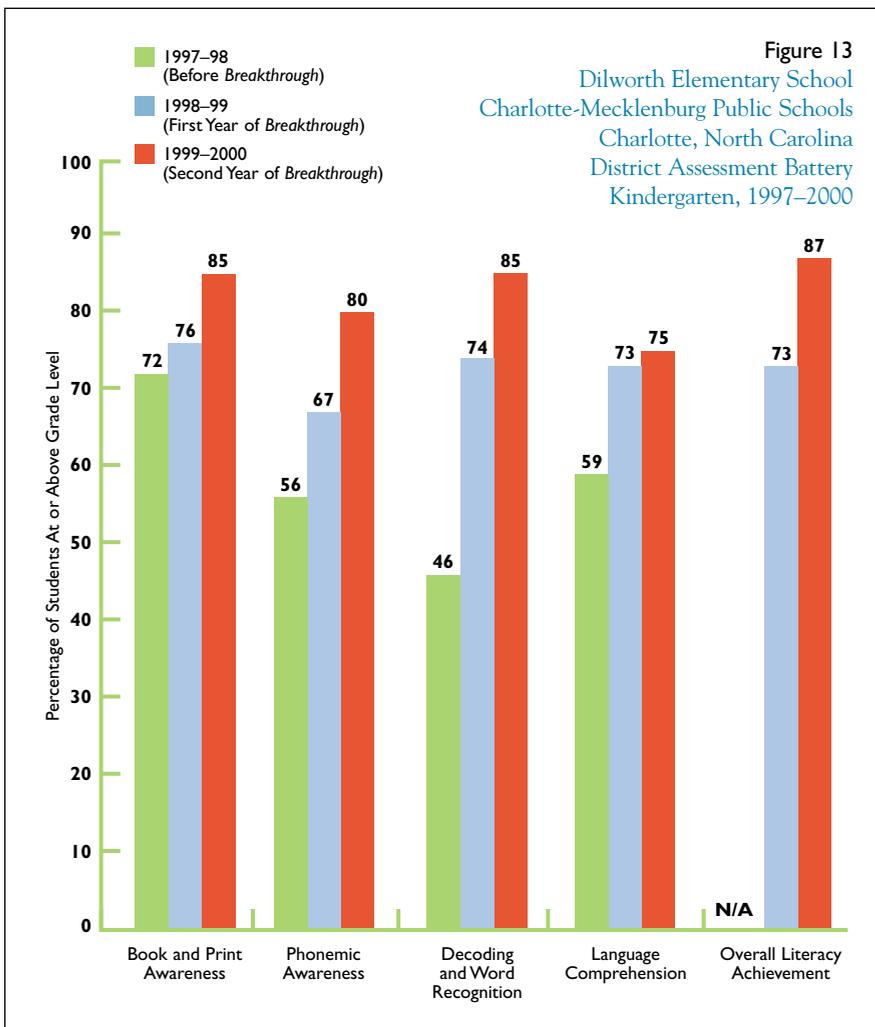
	Oral Comprehension	Basic Understanding	Introduction to Print	Number and Number Relations	Measurement	Geometry and Spatial Sense	Data Analysis, Statistics, and Probability
<i>Breakthrough</i>	83%	54%	76%	68%	74%	86%	53%
Without <i>Breakthrough</i>	68%	39%	62%	55%	58%	75%	37%

**Charlotte, North Carolina:
Progressive improvement on critical skills**

Dilworth Elementary School used its district assessment battery to determine the impact of its kindergarten implementation of *Breakthrough to Literacy*, which began in January 1999, midway through the 1998–99 school year. Data are reported for three years: 1997–98 (before *Breakthrough*), 1998–99 (five months into the *Breakthrough* implementation), and 1999–2000 (after a full year of implementation).

a full year of implementation).

Figure 13 clearly shows that, across the three-year period, a progressively larger percentage of children scored at or above grade level on critical language and literacy skills, including phonemic awareness and language comprehension. Scores on mathematics assessments showed similar increases. The results reflect continuous improvement of the implementation, and the development of teacher and administrator effectiveness.



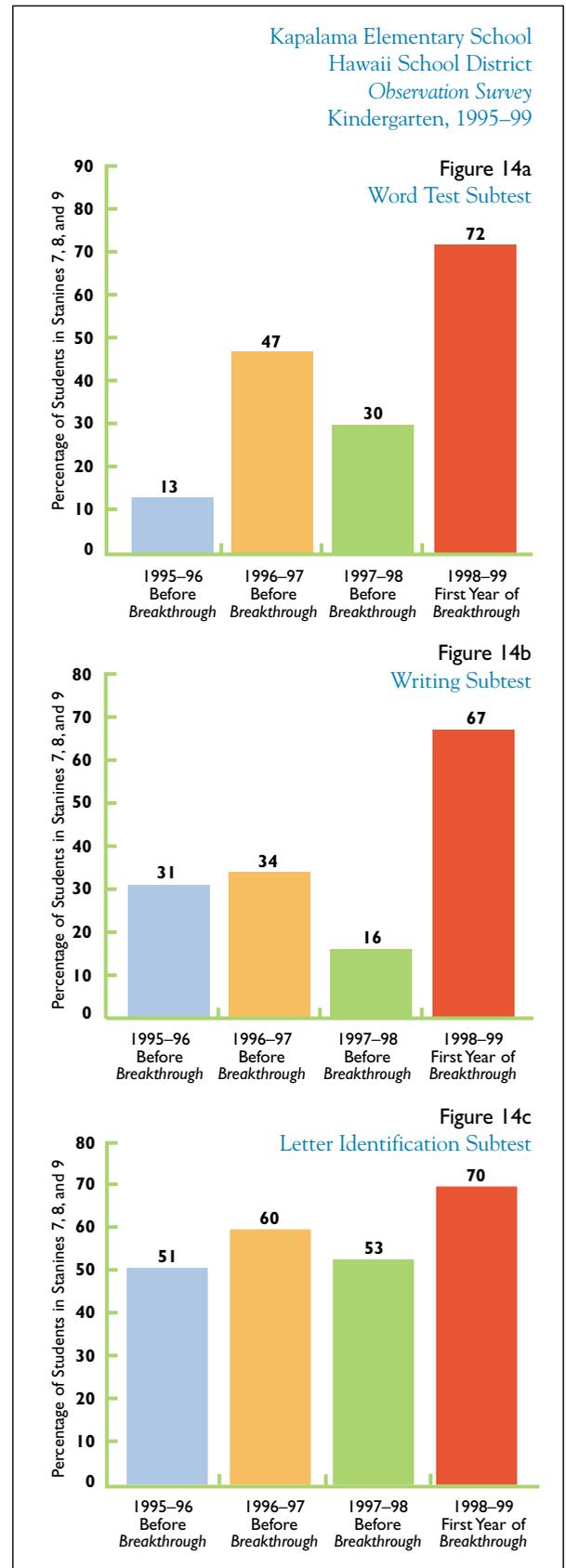
Honolulu, Hawaii:

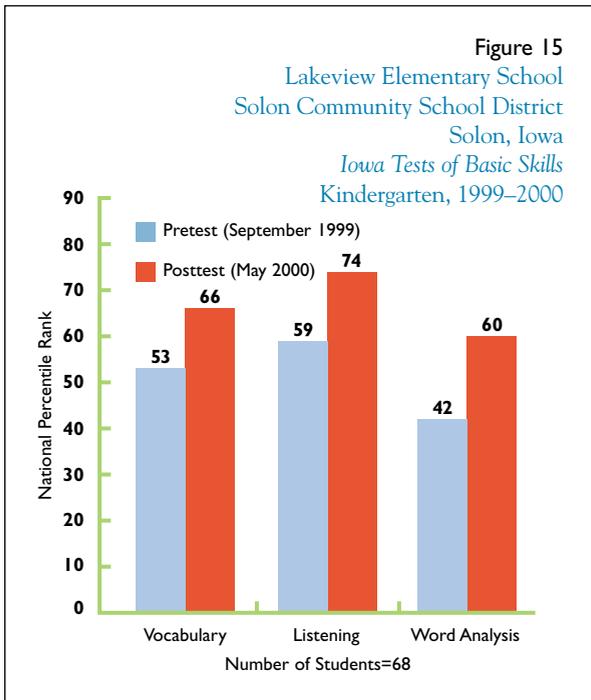
Improvements on word test, writing, and letter identification tasks

Clay’s *Observation Survey* has been used widely to assess children’s early language and literacy skills. *Figures 14a, 14b, and 14c* show results from the *Observation Survey* for the 1998–99 school year at Kapalama Elementary School. Compared to the previous three years, test scores substantially improved following the introduction of *Breakthrough to Literacy* in fall 1998.

Effectiveness Across Socioeconomic Factors

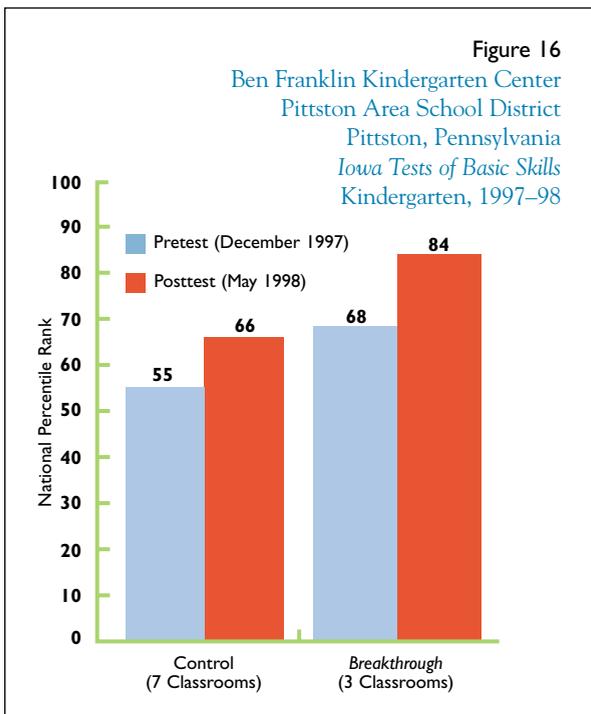
Many of the results discussed in this document are reported from schools with large percentages of students receiving free or reduced lunches (Durgan Elementary, Lafayette, Indiana; Grand Rapids Public Schools, Grand Rapids, Michigan; St. Helena Elementary and other *Breakthrough to Literacy* schools in Norfolk, Virginia; and Tuscaloosa City Schools, Tuscaloosa, Alabama). Still, it would be wrong to assume that *Breakthrough* benefits only students with economic or other barriers to learning achievement. In fact, *Breakthrough* districts have reported substantial improvement in test scores regardless of whether the free-or-reduced lunch count was low or high.





Solon, Iowa:
Significant gains on ITBS

Lakeview Elementary School in Solon, Iowa, is among the Iowa schools with the fewest children receiving free or reduced lunches (5 percent). As indicated by *Figure 15*, Lakeview Elementary children also experienced substantial gains from pre to posttest administrations of the ITBS (Vocabulary, Listening, and Word Analysis subtests) following implementation of *Breakthrough to Literacy*.



Pittston, Pennsylvania:
More improvements in basic skills

Pittston Area School District also used the ITBS to assess the impact of *Breakthrough to Literacy*. *Figure 16* shows greater gains in national percentile rank for children in *Breakthrough* classrooms than for children in non-*Breakthrough* classrooms in Pittston’s Ben Franklin Kindergarten Center. During the 1997–98 school year, 50 percent of children at the kindergarten center received free or reduced lunches.

Iowa City, Iowa:

Significant gains in national percentile ranks

Ernest Horn Elementary School serves a relatively affluent university community. Only 2 percent of Horn’s children received free or reduced lunches during the 1999–2000 school year. *Figures 17 and 18* demonstrate the impact of *Breakthrough* on the PPVT national percentile ranks in two Horn kindergarten classrooms. Both kindergarten classes substantially increased national percentile ranks from pretest to posttest. Although the pretest scores were relatively high, the children still made substantial gains.

Importantly, even those children who scored below the 50th percentile on the PPVT pretest increased their national standing nearly threefold from pre- to posttest (*Figure 18*). These gains mimicked those found in early work at Horn, which demonstrated greatly enhanced scores on the ITBS compared to historical norms.

Ernest Horn Elementary School
Iowa City Community School District
Iowa City, Iowa
Peabody Picture Vocabulary Test
Kindergarten, 1999–2000

Figure 17
All Kindergartners

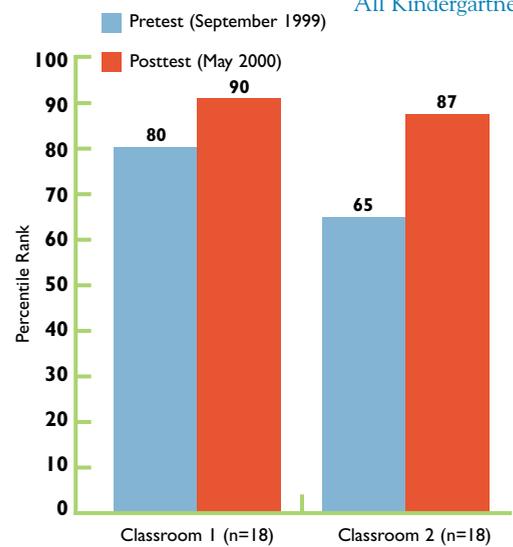
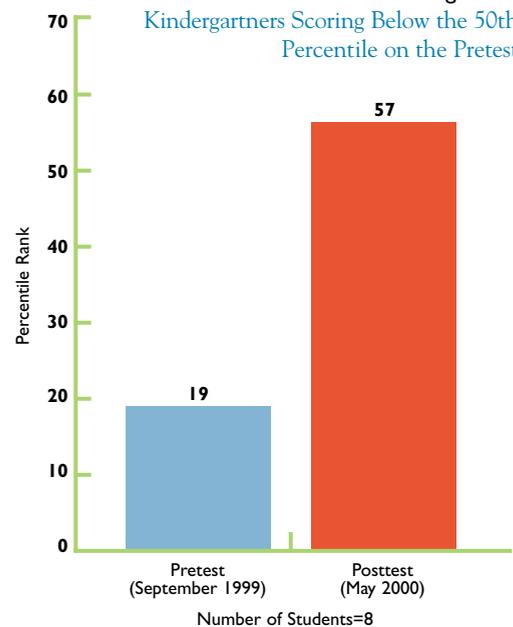


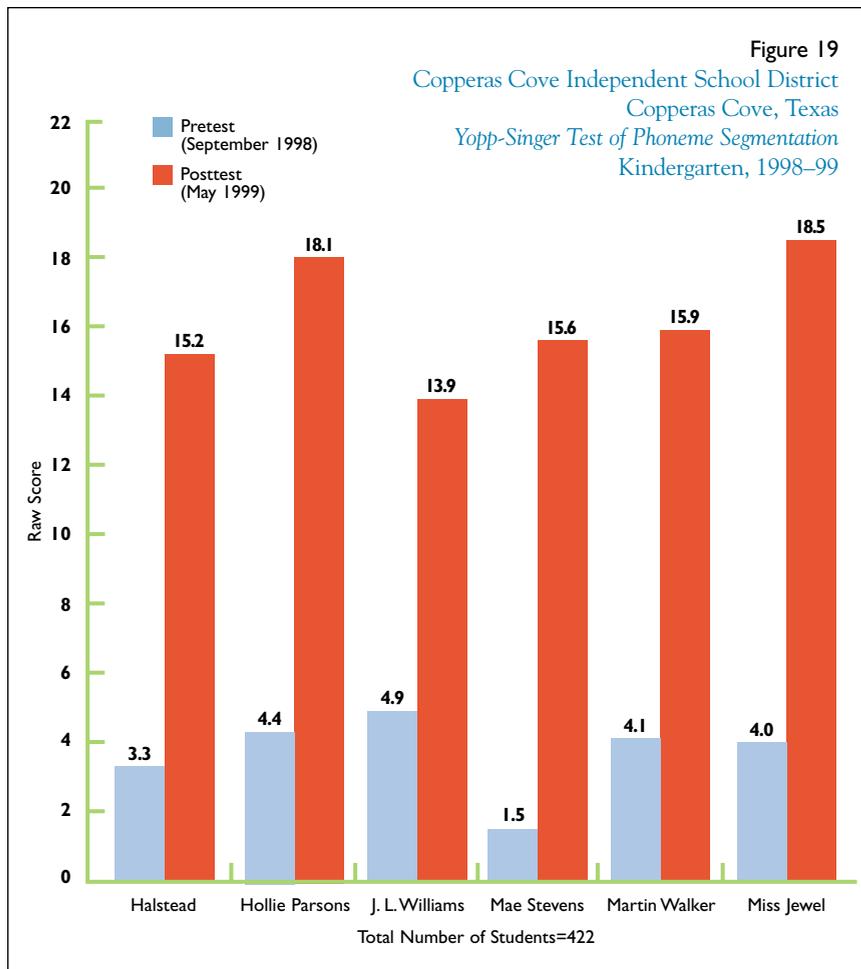
Figure 18

Kindergartners Scoring Below the 50th Percentile on the Pretest



Phonemic Awareness

The importance of phonemic awareness as a predictor of reading achievement or reading failure has been firmly established (Snow, Burns, and Griffin, 1998). Administrators and teachers are using *Breakthrough* to ensure that students in kindergarten develop this important skill.

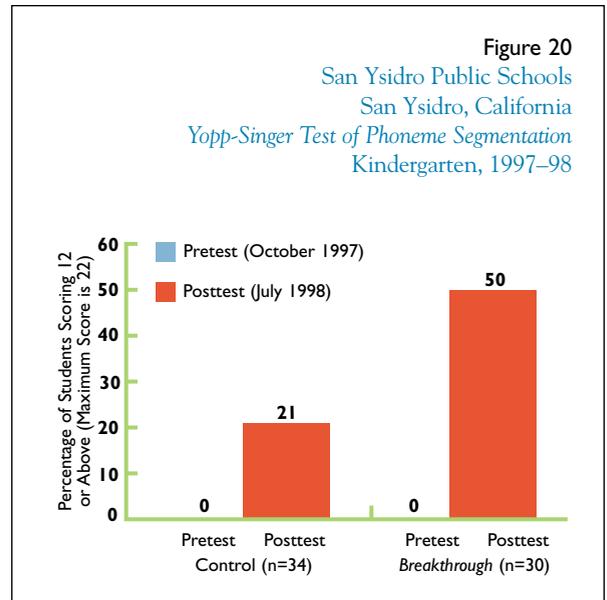


Copperas Cove, Texas: Dramatic gains on Yopp-Singer

Results from a large study in the Copperas Cove Independent School District show that kindergartners' phonemic awareness grows with the use of *Breakthrough*. Note the differences among schools, indicating varying levels of implementation or different emphases in instruction (*Figure 19*). All six schools are Title I Schools.

**San Ysidro, California:
High scores double**

In a study using appropriate control students, San Ysidro Public Schools reported that, on the posttest, twice as many *Breakthrough* kindergartners as non-*Breakthrough* kindergartners scored above 12 on the *Yopp-Singer Test of Phoneme Segmentation* (Figure 20).



**Columbia, South Carolina:
Gains in three classrooms**

Richland District I used the *Brigance Screens* to assess the impact of *Breakthrough* in its kindergarten classrooms. Figure 21 shows nearly a 12-point gain from the pretest to the posttest.

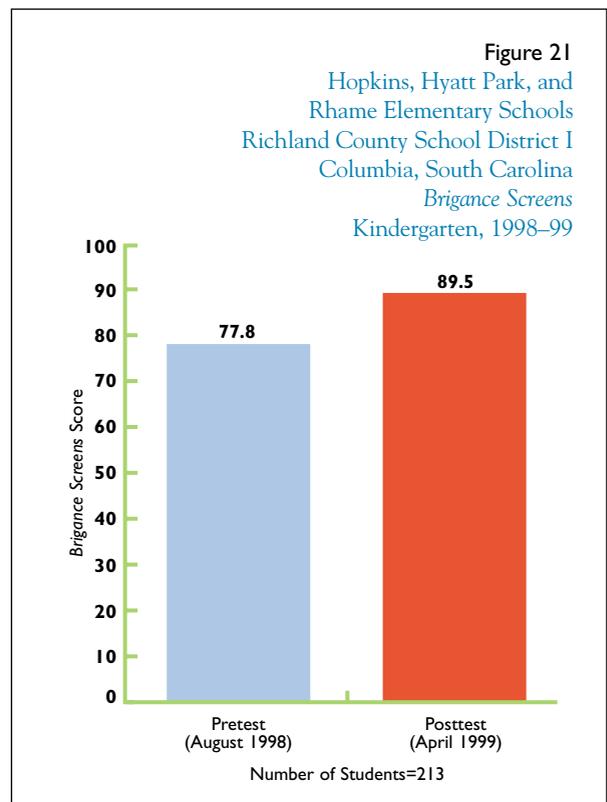
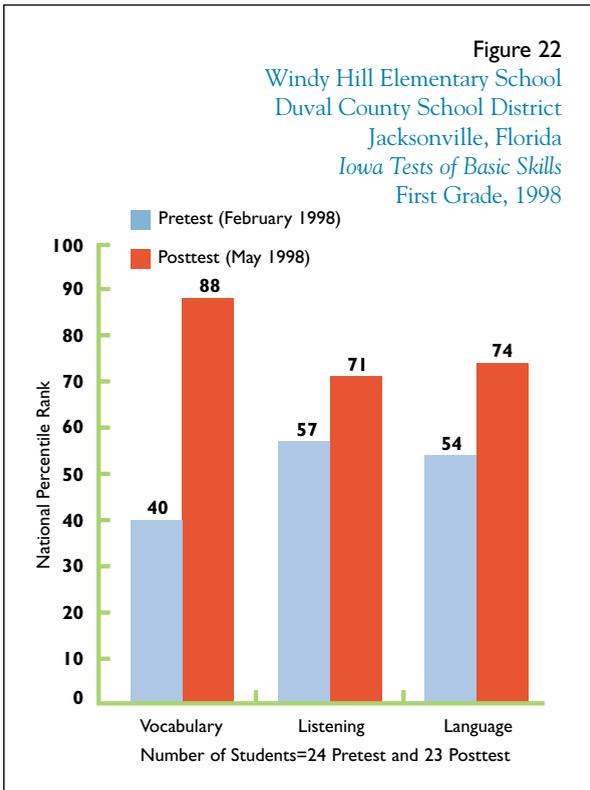


Figure 22
 Windy Hill Elementary School
 Duval County School District
 Jacksonville, Florida
 Iowa Tests of Basic Skills
 First Grade, 1998

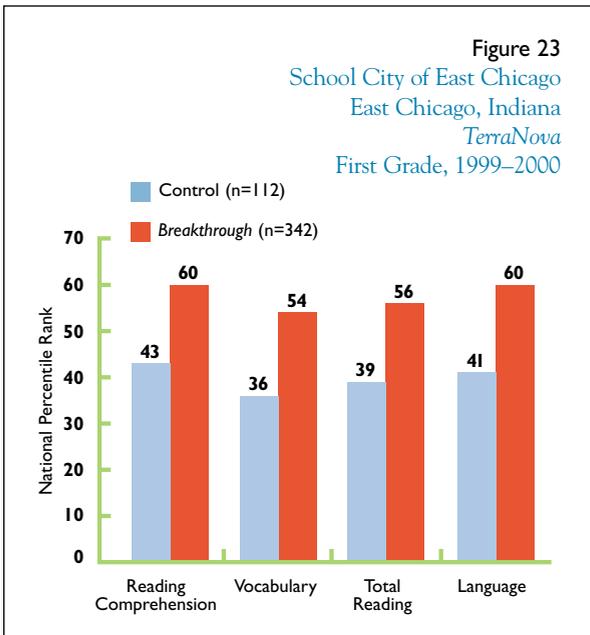


First-Grade Results

Jacksonville, Florida: Dramatic gains in four months

At Windy Hill Elementary School, results from a first-grade implementation reflected the high level of integration of *Breakthrough's* essential practices into ongoing classroom activities. *Figure 22* shows the results from the ITBS. The children were pretested in February, at the start of the implementation, and posttested in May, near the end of the school year. In less than four months, the *Breakthrough* children made substantial gains on the ITBS.

Figure 23
 School City of East Chicago
 East Chicago, Indiana
 TerraNova
 First Grade, 1999–2000



East Chicago, Indiana: Better in all skills

In the 1999–2000 school year, first-grade *Breakthrough* students in School City of East Chicago scored considerably higher on each subtest of the *TerraNova* than did their non-*Breakthrough* counterparts (*Figure 23*).

Northampton County, Virginia: Meeting grade-level expectations

Kiptopeke Elementary School used the *Phonological Awareness Literacy Screening*, a statewide diagnostic literacy assessment, to document first graders' acquisition of fundamental literacy skills and identify children who would benefit from accelerated reading instruction. At the beginning of the 1999–2000 school year, only 55 percent of Kiptopeke first graders met or exceeded the fall summed-score benchmark of 92 (*Figure 24*), indicating that 45 percent of the children failed to meet grade-level expectations.

Following implementation of *Breakthrough*, 83 percent of the first graders met or surpassed the spring summed-score benchmark of 102. This result demonstrates that 62 percent fewer children were considered to be at risk for reading problems beyond first grade.

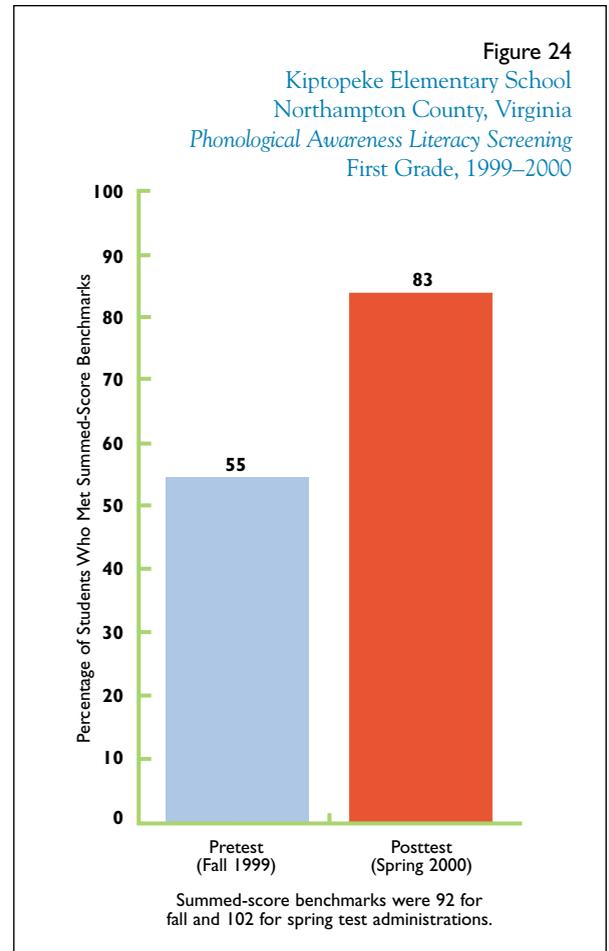


Figure 25



Writing as an Indicator of Success

Writing, one of the four essential practices of *Breakthrough to Literacy*, is an integral part of professional development and a daily classroom practice. It should not be surprising, then, that improvement in writing is one of the most important results of many *Breakthrough* implementations.

Nearly all *Breakthrough* teachers observe dramatic increases in students' interest and proficiency in writing, as well as accelerated progress through the developmental stages of writing.

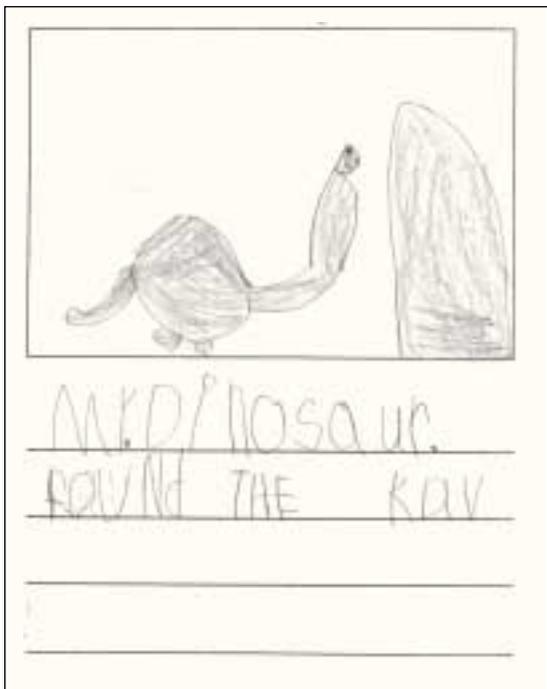
The writing samples on these pages are a representative sampling from three *Breakthrough* kindergartners.

The first two writing samples (*Figures 25 and 26*) represent **Lisa's** growth during her kindergarten year. Lisa came to school with no alphabet knowledge and limited experiences with "writing."

At midyear, she continued to lag behind her peers in expressive writing, but she successfully had learned her alphabet letters and sounds. As seen in this writing sample (*Figure 25*), Lisa was able to write letters from left to right and from the top of the page to the bottom. She was most comfortable copying letters and repeating patterns.

By the end of the year (*Figure 26*), Lisa had made remarkable gains. She viewed herself as a writer. She understood that she could express her "story" in writing and was using the word wall, developmental spelling, and illustrations to facilitate her written expression.

Figure 26



Jody started kindergarten with an excellent foundation in language development and early literacy skills. She knew the alphabet letters and sounds, had good rhyming skills, understood concepts of print, and had very good expressive language. However, Jody was a very young kindergartner who struggled to pay attention and maintain focus in classroom activities. Use of the computer helped to focus Jody's attention.

By midyear, Jody was able to translate her knowledge of the alphabet to written words, as illustrated by the developmental spelling in her writing sample (Figure 27). She also was able to recognize and use print from the word wall as she worked to express her thoughts in written form. Her teacher reported that, through her writing experiences, Jody was beginning to explore her own knowledge of language and the ways that words work.

Erica began kindergarten with good oral language skills but knew only a few letter names and did not recognize her name in print. She was very motivated by "Peanut" (the elephant friend provided to each classroom by *Breakthrough*), who was especially interested in her writing. She quickly learned that her journal writing provided a wonderful opportunity to display her new skills and knowledge to her teacher, her peers, and her mother.

By midyear, Erica not only had learned her alphabet letters and sounds, but also was able to translate the spoken sounds of her own words into written language. As shown in her writing sample (Figure 28), Erica was using developmental spelling, sight-word knowledge, and the conventions of writing (e.g., spaces between words and left-to-right directionality) to express her thoughts in sentences.

Figure 27

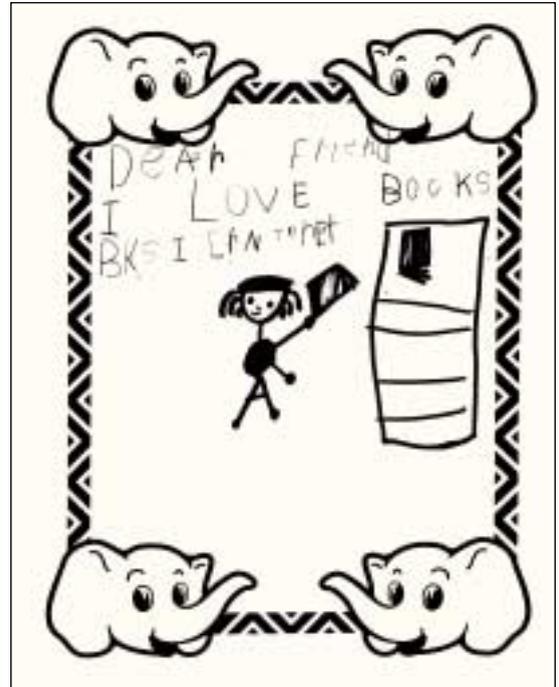
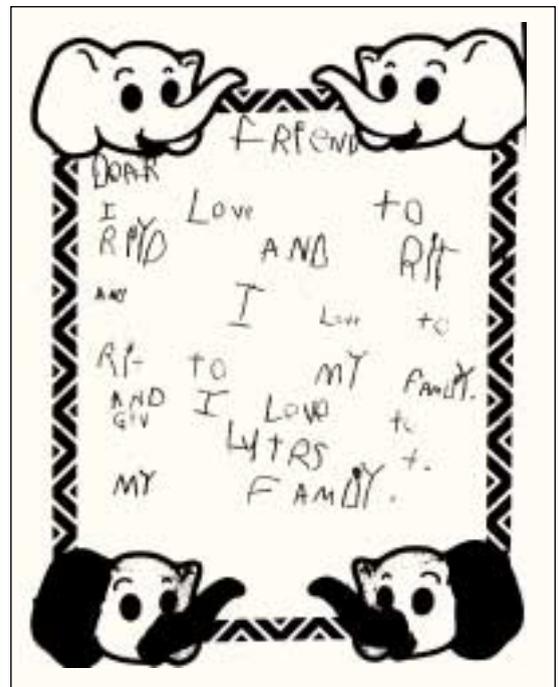


Figure 28



All that my kids
need now is a lap
and a hug.

Mary Lumpkin
Principal
Roberts Park
Elementary School
Norfolk, Virginia

Breakthrough to Literacy and English as a Second Language

Teachers and administrators serving children for whom English is a second language (ESL students) have supported *Breakthrough to Literacy* enthusiastically. An early study from Dallas illustrated the impact of *Breakthrough* in Bilingual and Speakers of Other Languages (SOL) programs. The following fall, a report from the Dallas Public Schools' Division of Accountability and Information Systems (Urrabazo, 1998, p. 95) concluded that:

- kindergarten *Breakthrough* students outperformed all comparison groups on the spring 1998 WMLS [*Woodcock-Munoz Language Survey, Comprehensive Manual*].
- kindergarten program SOL students who took the spring 1998 ITBS Word Analysis and Reading Vocabulary subtest matched the district median percentiles. They outperformed SOL students in the Jostens and Writing to Read programs.
- in a pre/post study, kindergarten SOL students in the *Breakthrough* program had the highest gain on WMLS, outperforming all comparison groups including the district.
- first-grade SOL students in the program outperformed all comparison groups on the spring 1998 WMLS.

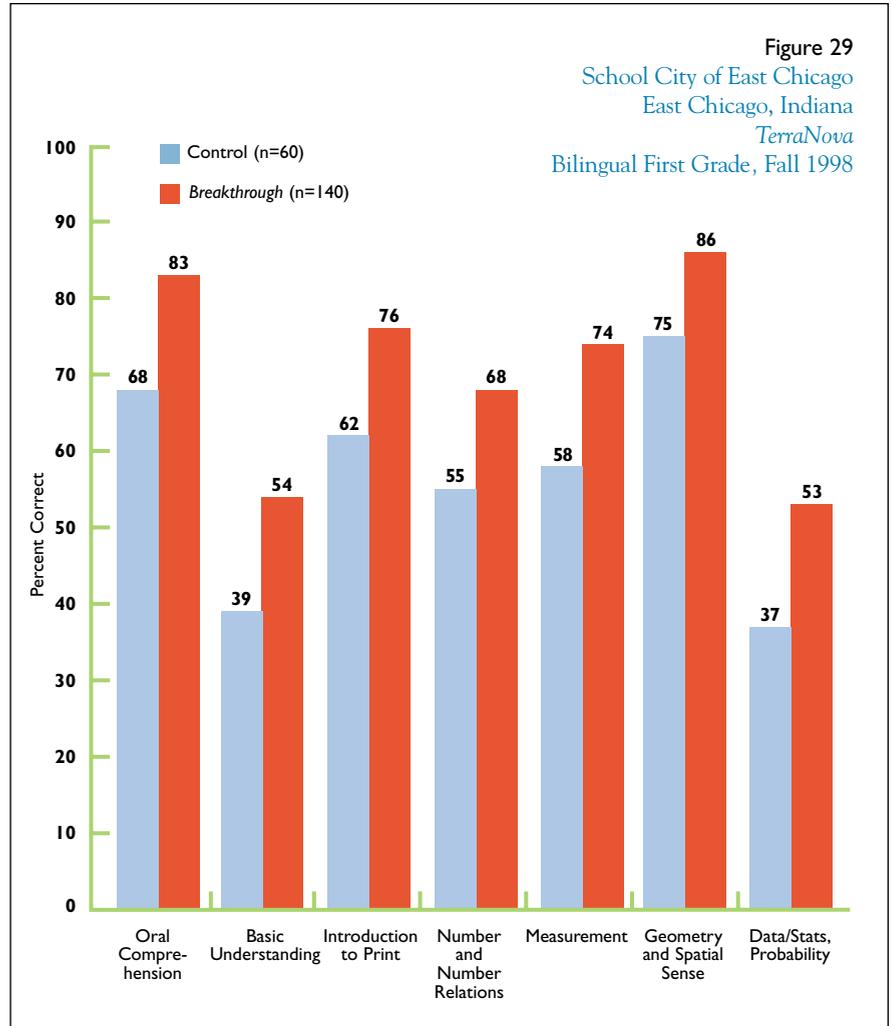
Breakthrough to Literacy's success in Bilingual and SOL programs is believed to be the result of the enhanced opportunities that *Breakthrough* provides for children. These include:

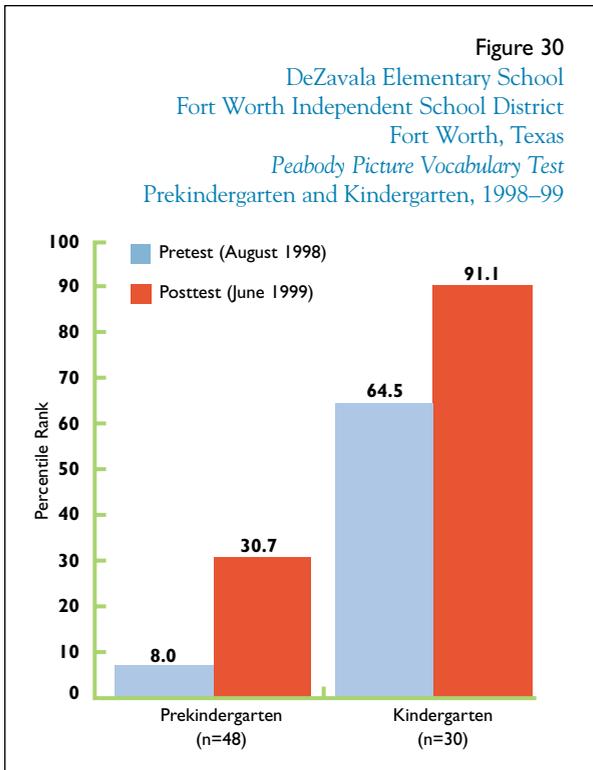
- perceiving the structure of spoken language,
- developing phonemic awareness of English,
- learning vocabulary, and
- gaining confidence in speaking and writing English.

Data from classrooms around the country support this position.

**East Chicago, Indiana:
Success in Bilingual
classrooms**

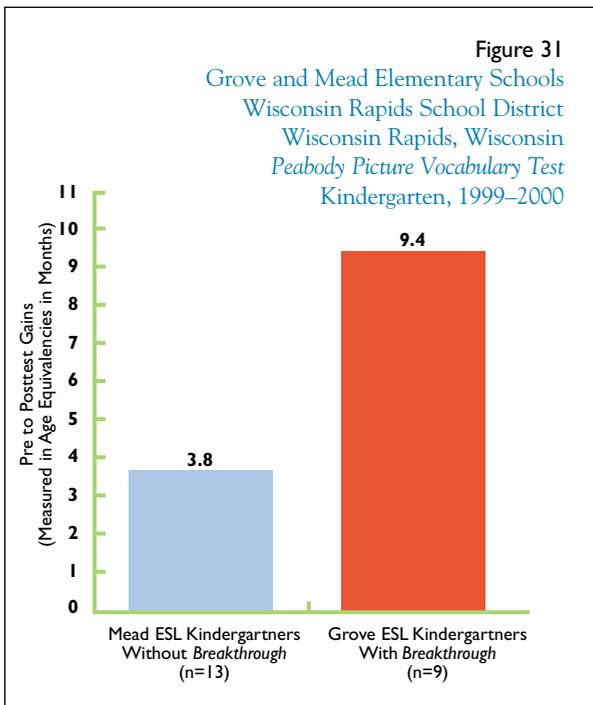
School City of East Chicago used the *TerraNova* to assess the impact of *Breakthrough to Literacy*. In fall 1998, first graders who had been in Bilingual kindergarten classrooms in 1997–98 were tested on critical developmental parameters. The district compared *Breakthrough* children to a matched sample of children from Bilingual classrooms that did not have *Breakthrough*. *Figure 29* shows that the children from Bilingual classrooms using *Breakthrough* outperformed the children in the control groups.





**Fort Worth, Texas:
Comparative advantage on PPVT**

DeZavala Elementary used the PPVT to assess progress of their *Breakthrough* children in prekindergarten and kindergarten classrooms. *Figure 30* shows the results of their pre- and posttest assessments, demonstrating substantial growth at both grade levels.



**Wisconsin Rapids, Wisconsin:
Gains for ESL students**

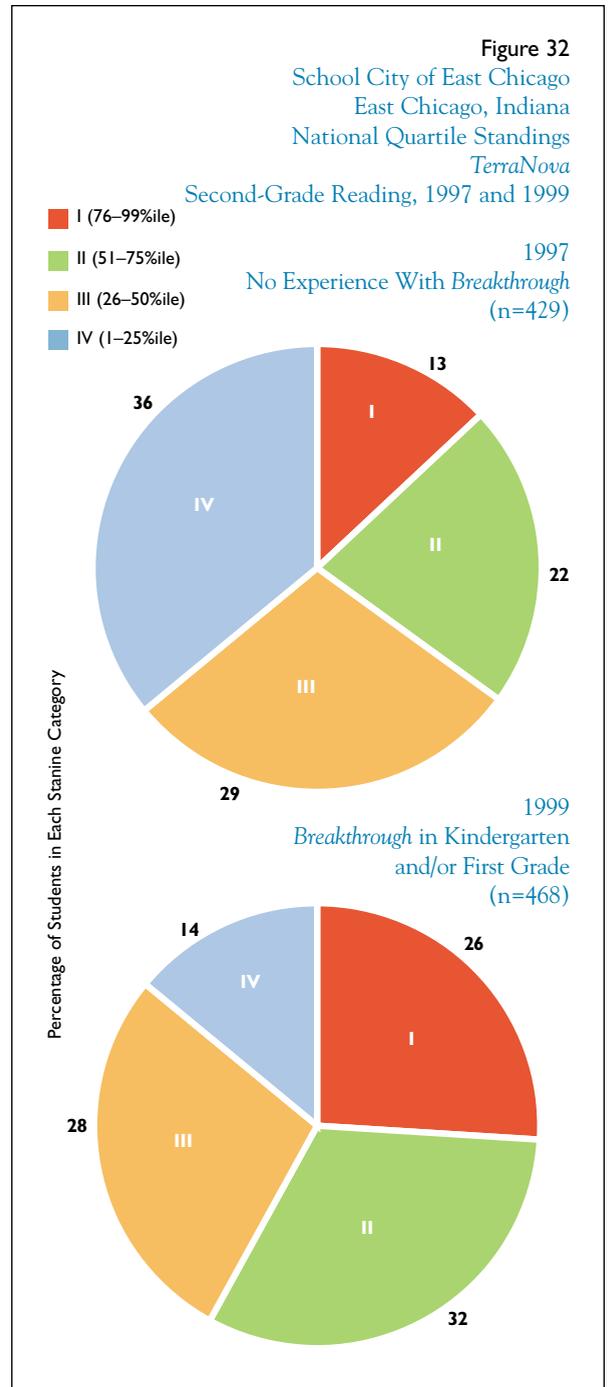
Grove Elementary School has a large number of students whose second language is English. The school reported gains for ESL students measured on the PPVT. These gains were compared to scores from an appropriate, non-*Breakthrough* control group. *Figure 31* shows the increased performance on the PPVT for the *Breakthrough* students. They showed an average gain in age equivalencies of 9.4 months, while the control students showed only a 3.8 month gain.

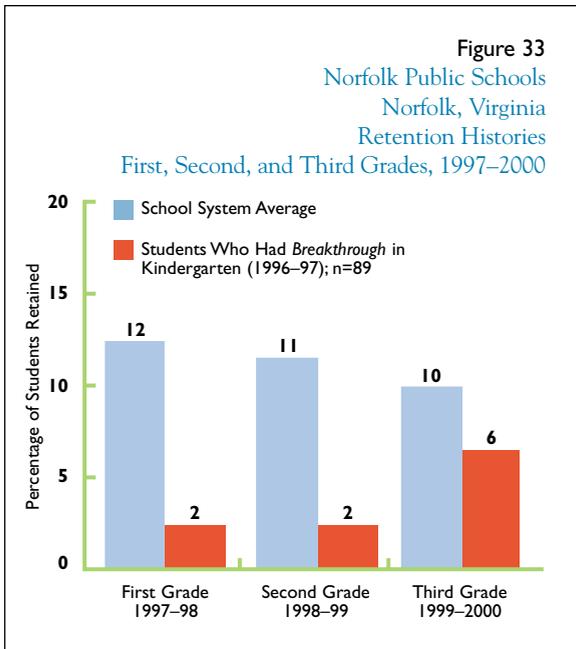
Longitudinal Impact

Several districts have undertaken studies to determine the longitudinal impact of *Breakthrough to Literacy*. In these studies, test scores and other measures of second and third graders who have had *Breakthrough* in kindergarten and/or first grade have been compared to scores of non-*Breakthrough* children or to district averages.

East Chicago, Indiana: Substantial impact on *TerraNova* scores

At School City of East Chicago, second graders were tested on the *TerraNova*. The 1997 second graders had no experience with *Breakthrough to Literacy*. By contrast, the 1999 second graders had used *Breakthrough* in kindergarten and/or first grade. Compared to the 1997 second graders, the percentage of 1999 second graders in the top quartile (quartile I) doubled, and the percentage of students in the bottom quartile (quartile IV) dropped from 36 to 14 percent in reading (Figure 32).



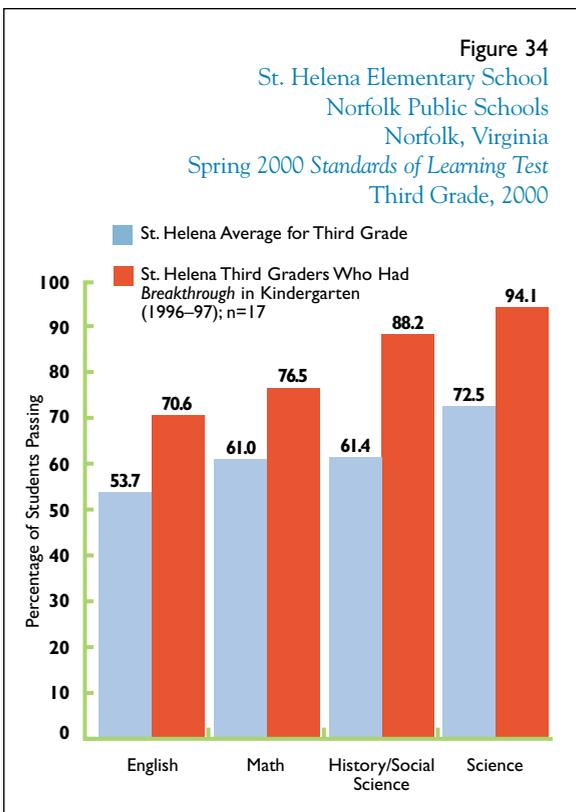


Norfolk, Virginia:

Fewer retentions, higher performance on state assessments

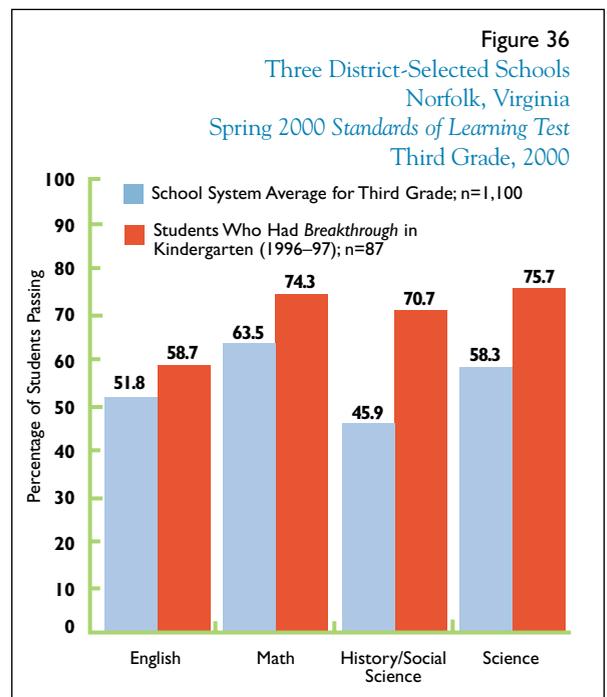
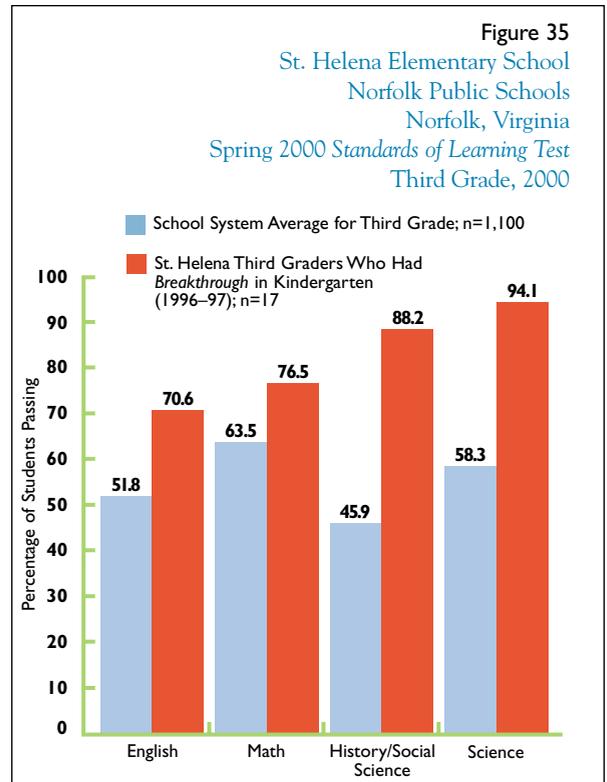
At the end of the 1999–2000 school year, researchers evaluated the retention histories of third graders from three schools in which *Breakthrough* was used with kindergartners in 1996–97. Comparing retention rates for *Breakthrough* students with district averages, researchers found that fewer students who had used *Breakthrough to Literacy* in kindergarten were later retained in first, second, or third grade. This benefit of *Breakthrough* was evident even up to three years after using the program (Figure 33).

In the 1996–97 school year, a class of kindergarten students at St. Helena Elementary School in Norfolk used *Breakthrough to Literacy*. Three years later, as third graders, these same children were tested using the Virginia *Standards of Learning* assessment, the state’s high-stakes test. Their scores were consistently higher than those of St. Helena students who had not used *Breakthrough* in kindergarten (Figure 34).



As third graders (1999–2000), students who had used *Breakthrough* in kindergarten at St. Helena also performed significantly better than the district average in all categories of the Virginia *Standards of Learning* examination (Figure 35). Note the increase of the St. Helena third-grade scores for children using *Breakthrough to Literacy* (n=17) compared to 1,100 control students from 11 schools in Norfolk. One hundred percent of St. Helena’s 1999–2000 students received free or reduced-cost lunches.

In addition, Norfolk Public Schools compared 1999–2000 scores on the *Standards of Learning* assessments for students who had used *Breakthrough* during the 1996–97 school year in three elementary schools with the school system average. The *Breakthrough* students exceeded the district average in every content area (Figure 36).

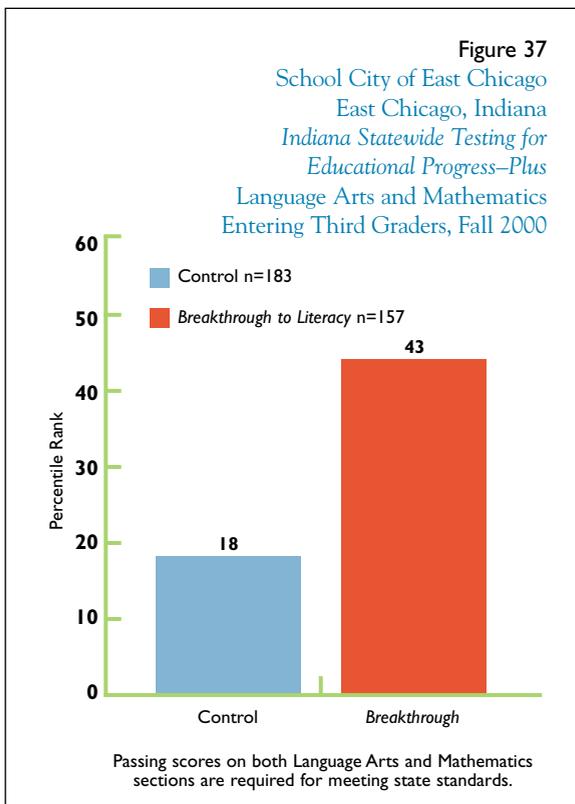


**East Chicago, Indiana:
High achievement in language arts and mathematics**

In fall 2000, third graders at School City of East Chicago who had used *Breakthrough* in first grade took part in the *Indiana Statewide Testing for Educational Progress–Plus* (ISTEP+), Indiana’s high-stakes test. On this assessment, only students passing both Liberal Arts and Mathematics sections of the exam meet state standards.

Of the 340 third graders taking the ISTEP+, more than twice as many who used *Breakthrough* met state standards as those who had not used the program in first grade (*Figure 37*).

Results from these longitudinal studies demonstrate the lasting impact of *Breakthrough to Literacy*. When strong foundations are built, the program’s impact remains. Research is under way to determine the additive effect of *Breakthrough to Literacy* when children are engaged with the program in prekindergarten through second grade.



Discussion and Conclusions



Results clearly show that *Breakthrough to Literacy™* can enhance classroom performance, increase test scores, and engage children in important language and print activities in school and at home. The answer to the often-asked question, “Does *Breakthrough to Literacy* work?” should, therefore, be a resounding “Yes!”

Neither the question nor the answer, however, is actually that simple. *Breakthrough to Literacy* can and does “work” because the curriculum, instructional practices, and assessments are parts of an integrated conceptual framework that teachers find especially effective.

As expected from any serious initiative, the results of the process depend on the quality of the implementation: how consistently teachers engage children in the program’s four essential instructional practices and how carefully they focus instruction on each child’s developmental needs. Results clearly demonstrate the importance of *Breakthrough’s* professional development and ongoing support, as well as strong partnerships among the *Breakthrough* organization and a school’s administrators and teachers.

For educators, then, the appropriate question is, “How can we establish the conditions that we know will ensure a successful implementation?”

By focusing on this primary goal, educators place themselves in the best position to achieve it. Children, teachers, and schools all will benefit.

More Praise From Educators



Educators across the nation enthusiastically praise *Breakthrough to Literacy*[™]. Below is a selection of comments made by educators about the *Breakthrough* program and the ongoing support provided to teachers through Breakthrough to Literacy's Partnership for Results.

“What makes *Breakthrough* so unique is the quality of the professional development. *Breakthrough* uses a methodical, step-by-step process that is provided incrementally over time.”

Mark Tavernier, Senior Director,
Communication Skills
Norfolk Public Schools
Norfolk, Virginia

“We haven't found anyone *Breakthrough* doesn't work well with. We have a lot of ESL students, as well as students with developmental delays and speech-and-language impairments. Last year, we gave the *Language Assessment Scale* pretest in late December or early January to 24 students. We gave the posttest in April and found huge gains. The mean increase of 17 points was found to be statistically significant. In the fall, ESL students who had spoken their native language all summer maintained their gains within two or three points of their spring scores! We were very impressed.”

Jo McElroy, ESL Coordinator
Dishman-McGinnis School District
Bowling Green, Kentucky

“In *Breakthrough to Literacy*, I have found a computer-based program that actually helps me create a balanced literacy program in my classroom that is developmentally appropriate for my first-grade children. And with wonderful books like *Mrs. Wishy-Washy* and *The Farm Concert*, what more could a teacher ask for?”

Bronwyn McLemore
Former First-Grade Teacher
Visiting Instructor
University of North Florida
Jacksonville, Florida

“The support of the *Breakthrough to Literacy* program in Norfolk is unparalleled by any other initiative over the past five years.”

Peggie Robertson, Ph.D., Principal
Larrymore Elementary School
Norfolk, Virginia

“Our teachers are thrilled with it! The children don’t even want to paint, they love the books so much. They love *Breakthrough*.”

Cathy Corotta, Principal
Louisville Deaf Oral School
Louisville, Kentucky

“I think the most wonderful thing about *Breakthrough to Literacy* is that it is truly geared for each child.”

Karen Slagle, Kindergarten Teacher
Fairlawn Elementary School
Norfolk, Virginia

“My two kindergarten teachers from last year would die if we took *Breakthrough to Literacy* away from their students.”

Lilian Thomas, Principal
St. Helena Elementary School
Norfolk, Virginia

“Thank you for developing a wonderful program that makes reading fun yet provides a strong reading foundation for children in kindergarten.”

Mrs. Lindberg, Parent
Temple, Texas

“One of the children in my class had no English to begin with. ... At the end of the school year he was reading in the top reading group, and he may have a place in the gifted program. *Breakthrough* gave him the opportunity to progress at his own rate and develop the skills for success. I feel it is a terrific program and wish all the kindergarten and first grades in our school were using it.”

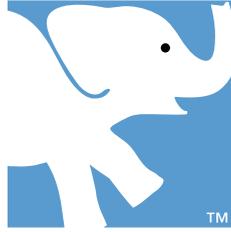
Louise Stark, Kindergarten Teacher
High Point Elementary School
Atlanta, Georgia

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See-the-Sound

Visual Phonics

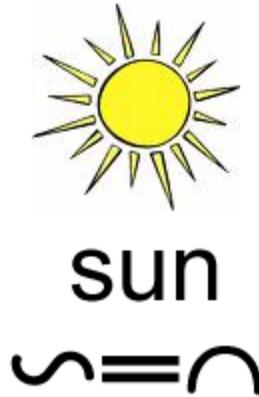
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Visual Phonics is used as a way to make phonemes visible to students.

- Hand cues and written symbols represent phonemes
- Easy and quick for students to learn and use
- Can be used with any reading curriculum
- Compatible with brain-based theories of learning
- Multi-sensory and interactive

Used by preschool teachers, classroom teachers, special educators, reading specialists, speech-language pathologists, and ELL teachers to develop, facilitate and maintain literacy skills and communication skills.

Using Visual Phonics helps teach students learn to decode and spell.



Although Visual Phonics was originally developed to be used with students that are Deaf or Hard of Hearing, it's frequently used in many different settings. Teachers are using Visual Phonics with students who are struggling with reading, students who are autistic, students with learning disabilities, students who are English Language Learners, and with young students who are new readers! See the testimonials from teachers to see what they are saying about how their students respond to Visual Phonics. Speech-Language Pathologists also use Visual Phonics to work on speech and language with students.

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Phonological Awareness and Decoding in Deaf/ Hard-of-Hearing Students Who Use Visual Phonics

Rachel F. Narr

California State University, Northridge

Visual phonics, a system of 45 hand and symbol cues that represent the phonemes of spoken English, has been used as a tool in literacy instruction with deaf/hard-of-hearing (DHH) students for over 20 years. Despite years of anecdotal support, there is relatively little published evidence of its impact on reading achievement. This study was designed to examine the relationship between performance on a phonological awareness task, performance on a decoding task, reading ability, and length of time in literacy instruction with visual phonics for 10 DHH kindergarten through Grade 3 students receiving academic instruction with sign-supported English and American Sign Language. Findings indicate that these students were able to use phonological information to make rhyme judgments and to decode; however, no relationship between performance on reading ability and length of time in literacy instruction with visual phonics was found.

The cognitive strategies that deaf/hard-of-hearing (DHH) students use to process print information are at least as varied and complex as those used by hearing readers. Recent publications and investigations are placing considerable value upon the cognitive processes believed to be used by hearing children, instruction in those processes, and the potential application with DHH students (Luckner, Sebald, Cooney, Young, & Muir, 2005/2006; Schirmer & McGough, 2005). Sev-

The author would like to thank the teacher and students of Hollyvale Elementary School for taking part in this study and helping to make this research possible. Thanks also to the graduate student who assisted in data collection and analysis and to Barbara Schirmer who provided valuable suggestions in the preparation of the manuscript. The author is a See-the-Sound/Visual Phonics trainer licensed by ICLI. No conflicts of interest were reported. Correspondence should be sent to Rachel Friedman Narr, California State University, Northridge, 18111 Nordhoff Street, Northridge, CA 91330-8265 (e-mail: rachel.narr@csun.edu).

eral correlational and experimental studies specifically exploring the process of phonological awareness (Dyer, MacSweeney, Szczerbinski, Green, & Campbell, 2003; LaSasso, Crain, & Leybaert, 2003; Leutke-Stahlman & Nielsen, 2003; Sterne & Goswami, 2000) and phonics instruction (Trezek & Malmgren, 2005; Trezek & Wang, 2006; Trezek, Wang, Woods, Gampp, & Paul, 2007) with DHH students provide evidence that some DHH students do have access to phonological information in words and can use this information meaningfully for reading.

Phonological awareness skill is a strong predictor of reading ability in young hearing children (Adams, 1990; Wagner & Torgesen, 1987). Phonological awareness can be defined in broad terms as the ability to understand and engage in skills such as rhyming, alliteration, and syllabication. It includes specific phonemic awareness skills such as sound identification, sound blending, segmenting, and sound manipulation. Rhyming ability, in particular, is an often used technique to determine an individual's sensitivity to the phonological (or sound based) properties of English. Several researchers have used a variety of rhyming tasks to investigate this sensitivity with DHH individuals (Charlier & Leybaert, 2000; Hanson & Fowler, 1987; LaSasso et al., 2003; Sterne & Goswami, 2000) and have correlated phonological awareness with reading ability in DHH children (Colin, Magnan, Ecalle, & Leybaert, 2007; Dyer et al., 2003; Harris & Beech, 1998; Kyle & Harris, 2006). However, intervention studies teaching phonological awareness skills and measuring the impact on reading

with this population are limited in the research literature (Trezek & Wang, 2006; Trezek et al., 2007).

In addition to basic phonological awareness skills, specific and focused instruction in phonics also yields positive effects on reading ability in hearing children (National Reading Panel, 2000). Not surprisingly, there is also a significant lack of this kind of research investigating interventions with DHH students (Schirmer & McGough, 2005). Trezek et al. have published three studies that expressly examine phonics instruction with DHH students (Trezek & Malmgren, 2005; Trezek & Wang, 2006; Trezek et al., 2007). Those studies provide strong correlations between the phonics instructional programs they used and reading skills with DHH students.

There is a small but growing research base pertaining to phonological awareness and phonics instruction with DHH students, along with an extensive body of research that has demonstrated the critical importance of phonological awareness and phonics in learning to read any alphabetical script (such as English). In consideration of this research, several significant questions confront the field: how can DHH students acquire the phonemic aspects of spoken language if access to hearing is limited; should these skills be taught to DHH students for the purposes of impacting reading achievement; and if so, how can we provide accurate and complete representations of the phonemic aspects of spoken language, *regardless of hearing acuity or communication method*, so that DHH students can access and process that information?

Visual phonics represents one promising approach. Visual phonics was designed to visually represent phonemes in spoken language. Originally conceived by a parent of a deaf child to aid in reading acquisition, it is a system of 45 hand and symbol cues that provides visual and kinesthetic information associated with the way a sound is produced verbally. For example, the /p/ sound is represented with a hand cue that simulates the “plosiveness” of /p/—the air being released from the lips. There are unique symbol cues that correspond with each hand cue to provide students with a written correlate for a phoneme. Visual phonics is not a communication system, rather it is a tool for conveying the phonemic information contained within isolated words (International Communi-

cation Learning Institute, 1996). Teachers learn visual phonics from trainers who are licensed by the parent organization, International Communication Learning Institute (ICLI). Training typically consists of 10–14 hours of group instruction during which time the hand cues and symbols are learned and participants are provided with ideas and strategies for incorporating visual phonics into their reading instruction. Visual phonics is reportedly used by teachers, speech-language pathologists, paraprofessionals, and parents of a wide variety of children. Although visual phonics has been used in classrooms of DHH students for over 20 years, and was a component of several recent studies (Trezek & Malmgren, 2005; Trezek & Wang, 2006; Trezek et al., 2007), there is little research evidence to demonstrate its efficacy or describe its use.

The focus of the current study extends a prior study in which DHH students were assessed on two distinct tasks: phonological awareness and decoding (Dyer et al., 2003). Dyer et al. investigated the extent to which phonological awareness and decoding were correlated with reading performance as measured by word recognition and reading comprehension in 49 severely-to-profoundly deaf students. The students in the study had a mean age of 12.7 years, and their mean reading age was 7.3 years. Phonological awareness was assessed using a picture rhyming task. Decoding was assessed using pictures and pseudohomophones (letter strings that when “pronounced” sound like an English word [FOCS] [fox]) (Dyer et al., 2003; Sterne & Goswami, 2000). Dyer et al. found that phonological awareness strongly correlated with reading for their students. Although performance on the decoding task was positively associated with reading, it was not a statistically significant correlation.

This study was designed to examine the relationship between performance on a phonological awareness task, performance on a decoding task, reading ability, and length of time instructed with visual phonics for 10 DHH kindergarten through Grade 3 students receiving academic instruction with sign-supported English and American Sign Language (ASL). The hypothesis that predicated this examination was that literacy instruction using visual phonics with DHH students would be correlated with increased ability to

Table 1 Participant demographics including age, grade level, and approximate time in literacy instruction with visual phonics, hearing level, and reading level

Age (years; months)	Grade level	Approximate length of time in literacy instruction with visual phonics (years)	Unaided pure tone average (better ear) (dB)	Aided pure tone average (binaural with frequency modulated system) (dB)	Reading level
5; 9	K	2	95	47	Early first
7; 7	First	2	93	37	Early to mid-first
7; 11	Second	2	78	47	Early second
8; 1	First	2	103	45	Mid-first
8; 10	Second	1	110+	57	Early to mid-first
9; 0	Second	3	107	62	Early to mid-second
9; 1	Second	1.5	82	40	Mid-second
9; 2	Second	1.5	120 ^a	32 ^a	Late kindergarten to early first
9; 7	Third	1.5	68	25	Early to mid-first
9; 10	Third	3	118	78	Early to mid-first

^aThis student had a cochlear implant but had not been using it.

carry out phonological awareness and decoding tasks. If confirmed, it would suggest that visual phonics can provide an accessible means of developing phonological awareness for these children, which in turn may enhance reading achievement.

Methods

Participants

Students. A convenience sample of one intact classroom was used. Students were selected from among the limited options within this geographical region in which whole classes of students were exposed to visual phonics as a supplemental tool to literacy instruction. Nine students were from a first to third mixed-grade classroom of DHH students; one younger student from a Pre-K/kindergarten class also participated. The younger child was selected to participate because she was reading at a level commensurate with many of the students in the first- to third-grade class. All the students received their daily instruction using a combination of ASL and sign-supported English, depending upon each students' needs and the subjects being taught. Eight students had severe-to-profound deafness and two had moderate-to-severe deafness prior to amplification. One of the students had a cochlear implant; however, he rarely used it. Hearing levels with and without amplification are presented in Table 1.

Two students were children of deaf parents. The students ranged in age from 5 years, 9 months to 9 years, 10 months old, with an average age of 8 years, 5 months. The length of time students had been enrolled in this school, and thus, participating in literacy instruction with visual phonics ranged from approximately 1.5–3 years. Length of time in literacy instruction with visual phonics was used as an independent variable. Demographic information pertaining to each student is presented in Table 1.

Teachers. The teacher of the first- to third-grade classroom is a veteran teacher with 16 years of experience working with DHH students, with the past 8 years at this school. She has incorporated visual phonics into her reading instruction for over 10 years. The Pre-K/kindergarten teacher has 17 years of experience working with DHH students and has been at the school for 5 years. She has used visual phonics for approximately 2 years. Both teachers are hearing and are proficient sign language users.

Literacy Instruction Using Visual Phonics

Both teachers used an eclectic approach to literacy instruction following the standards specified per grade level by the state. They integrated resources from programs such as Reading A–Z (<http://www.readinga-z.com>) and use of leveled readers by Houghton-Mifflin,

Rigby, and Wright Group. Heavy emphasis was placed on vocabulary and general language instruction. They both used visual phonics to teach the phonemic awareness and phonic aspects of the reading process with their students. The visual phonics symbols were commonly used along with the standard reading materials that were used in the class. The majority of the visual and manipulative materials such as worksheets, flash cards, and games were teacher made. Students understood the symbols by demonstrating their ability to see a symbol and provide the corresponding hand cue (phoneme) for the symbol, and they did not confuse the symbols with letters. They were taught to understand that the symbols represent “sounds” and letters are the “written form of the sounds.” Students did not use the symbols for any of their own writing activities, they were written primarily by the teachers for depicting phonemic representations. In the first- to third-grade classroom, visual phonics cues were also used periodically throughout the day in other literacy types of activities. For example, during writing and spelling, visual phonics cues were used to support “sounding-out” strategies, where the teacher would provide the hand cue and the student would spell the word (i.e., teacher provides cues for /k-a-t/ and student writes *cat*). Visual phonics cues were also used to support learning new vocabulary words during content area instruction. The need for using the cues was faded as students no longer required this level of support in their reading or spelling.

The first- to third-grade teacher had a 60-min daily reading instructional block in the classroom that typically consisted of several stations through which the students rotated. One station consisted of leveled readers at each student’s independent reading level. Students each had reading shelves and “bookmarks” on which they kept track of the books they read independently at that station. The shelves encouraged independence in reading and provided the feel of a library. Another station consisted of independent sight word recognition activities. A third station consisted of small group work with the teacher. Activities in this station varied depending on the group but typically consisted of skill-building tasks and word and book reading. Activities for nonreaders focused consistently on phonemic awareness and phonics, beginning with

looking at picture books and predictable stories and matching visual phonics symbols representing particular concepts. Through much experience, the teacher found that “decoding” the visual phonics symbols before trying to make connections to letters assisted in the overall decoding process and facilitated a later transition to letters and word reading. In these activities, the teacher used the visual phonics hand cues and symbols to convey information about phonemes in words. Although the students were not required to use the hand cues or verbalize during these activities, most tended to use the hand cues consistently and often verbalized. For example, activities included phoneme-letter matching (matching the visual phonics symbol with the letter, with hand cues provided for support), initial phoneme matching (the word “mop” matched with the visual phonics symbol), onset-rime categorization with pictures, onset-rime categorization with using the symbols, and word-symbol matching (match words like “cat” with the visual phonics symbols). Figures 1 and 2 show materials for several of these activities. Beginning and more advanced readers participated in vocabulary building and syntactic skills, with visual phonics symbols used as one tool to figure out unknown words. At that point in the instructional process, most of the students had internalized the use of the visual phonics cueing system.

Reading Levels

Reading levels for each student were determined by an average of three curriculum-based measures:

1. Reading A–Z (<http://www.readinga-z.com>) Benchmark Books with Comprehension Questions.
2. A running record with leveled readers.
3. Classroom Reading Inventory (Silvaroli, 1996). Inventory Record for Teachers, Form A.

Teachers use curriculum-based measures to systematically monitor student progress and create appropriate instructional objectives. These measures were used schoolwide at this site, and the DHH classroom teacher was engaged in the assessments with her peers. Contrary to curriculum-based measures, standardized scores do not provide valuable instructional information, nor are they used as a means to monitor student progress. Furthermore, scores from standard statewide



Figure 1 Sample teacher-made materials used in reading instruction with visual phonics symbols. Visual Phonics symbols: Copyright 1996 by ICLI. Reprinted with permission.

assessments were not available for all the students participating in this research because of exemptions via the Individual Education Planning process. Reading levels for these students ranged from late-kindergarten to mid-second grade. This information is presented in Table 1. The students' reading levels were used as the second independent variable.

Measures

Phonological awareness. Phonological awareness was assessed using a picture rhyme task similar to the task described by Dyer et al. (2003) and Sterne and Goswami (2000). Modifications of their task were required to reflect standard American English rhyme patterns (Sterne & Goswami and Dyer et al., both used British English rhymes). Three pictures were presented on each page of a test book: a target picture above and two pictures below. One of the bottom pictures was a rhyme, and one was a distracter. The task required no reading or verbal expression and was simply to choose the picture that rhymed with the target. There were 4 trial items and 40 test items. Twenty of the items were orthographically similar rhyming pairs (pear, bear), and 20 were orthographically dissimilar pairs (light, kite). In addition, there were two types of distracters used in the task: 23 that shared some phonological features with the target rhyme (e.g., [top] and [ten]) and 17 that shared no phonological features

with the target rhyme (e.g., [drum] and [leaf]). Of the 23 distracters that shared phonological features, all but two (phone/feet and house/owl) also shared orthographic features (see Appendix). The dependent variable was the total correct for each participant.

Decoding. The decoding task was also developed and used initially by Dyer et al. (2003) and Sterne and Goswami (2000). The decoding task was designed to assess students' ability to read and associate meaning with words without using a whole-word reading strategy. Modification for this task was substantive, though the fundamental processing strategy within the task was the same as that used in the previous studies. Visual phonics symbols were used instead of the phonetically spelled pseudohomophones used in the previous research. On each item, the task was to select the set of symbols that represented the picture target. For example, both Sterne and Goswami (2000) and Dyer et al. used nonwords to represent the name of the picture (e.g., [BOYS]—*boiz*), whereas the present task used visual phonics symbols to represent the name of the picture (e.g., [BOYS]—*bYz*) ("boiz" represented here using visual phonics symbols) Figure 3 shows a trial item from the task. Visual phonics symbols were written by the classroom teacher, and students were familiar with the symbols and her writing prior to the study. Like the previous research, there were three

Name: _____

Directions: Write the correct word for each picture below.

can

hat

fan

bag

cap

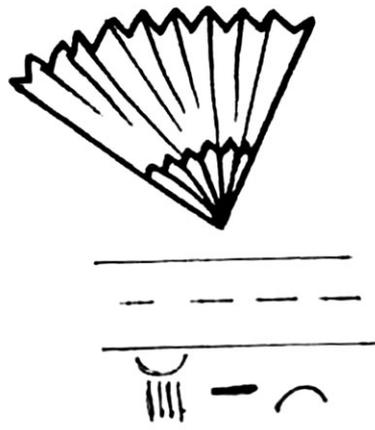
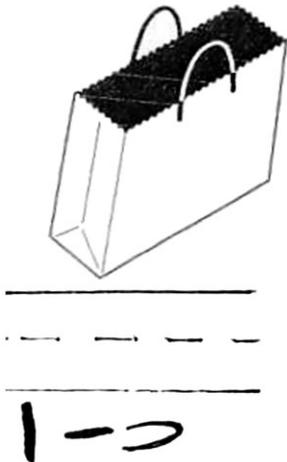
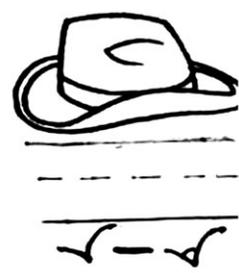
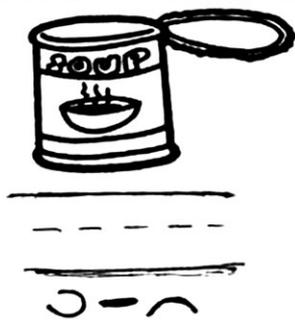
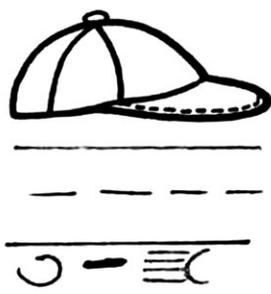


Figure 2 Sample teacher-made materials used in reading instruction with visual phonics symbols. Visual Phonics symbols: Copyright 1996 by ICLI. Reprinted with permission.

distracters for each item: initial phoneme different (/r/ for /b/), medial phoneme different ([æ] for [oy]), and final phoneme different (/n/ for /z/). The student was required to choose the correct set of symbols from a choice of four. All the distracter items were also written using visual phonics symbols. There were 4 trial items and 20 experimental items. The dependent variable was the total number of correct responses.

Procedure

The teacher of the first- to third mixed-grade class delivered the instructions for both the phonological

awareness task and the decoding task. The instructions were written out explicitly by the researcher and rehearsed by the teacher. The instructions remained essentially the same for each student, though the mode of presentation varied depending on the primary communication style of the student (sign-supported speech or more ASL-like communication). The administration of the tasks was observed in-person by the researcher and a graduate assistant who also recorded the students' responses to each item. All administrations were videotaped in the event that the instructions or responses needed review at a later time. Prior to administration of the tasks, the

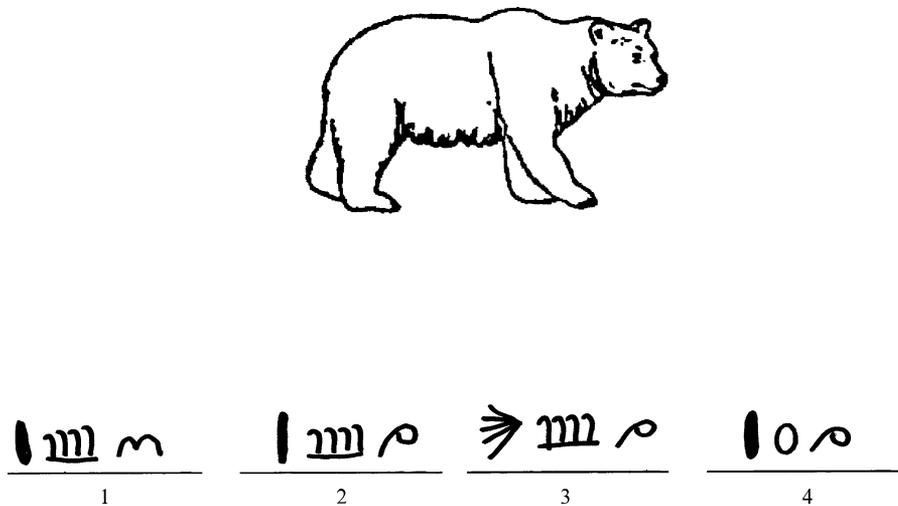


Figure 3 Trial item of decoding task. Visual Phonics symbols: Copyright 1996 by ICLI. Reprinted with permission.

participants performed a naming pretest to ensure that they were familiar with the pictured items used in the tasks. Students were allowed to name the picture in whatever mode they felt most comfortable (sign, speech, or a combination). Pictures that were not named accurately by more than six students were discarded from the selection, and alternate pictures were tested and substituted.

Results

Means (M), standard deviations (SD s), and response ranges for all dependent variables are presented in Table 2.

Phonological Awareness

Group data were analyzed at several levels for the picture rhyming task: overall accuracy, accuracy for orthographically similar and orthographically dissimilar rhyme pairs, error analysis per item, and overall percent accuracy per item. Individual performance was then considered across the group according to age, reading level, and length of time being instructed

in reading with visual phonics. Results from a one-sample t test revealed that the group mean for overall accuracy on the rhyme judgments ($M = 31.1$, $SD = 6.02$) was significantly greater than chance, $t(9) = 5.82$, $p < .01$. The effect size d of 1.84 indicates a large effect. Individual performance on the task ranged from 52.5 to 92.5% accuracy. One-sample t test results also revealed that group performance on the 20 items that were orthographically similar was significantly greater than chance ($M = 16.0$, $SD = 3.16$), $t(9) = 6.00$, $p < .01$. Similarly, group performance on the 20 orthographically dissimilar items was also significantly greater than chance ($M = 15.0$, $SD = 3.27$), $t(9) = 4.84$, $p < .01$. The ranges on individual performance for these tasks were 50 to 95% accuracy on orthographically similar items and 45 to 95% accuracy on orthographically dissimilar items.

An error analysis of the items on the picture rhyme task showed that seven students missed one item in which the rhyming pair was orthographically dissimilar, yet the distracter shared a phonological feature with the target rhyme (*whale*, nail, and stairs). Five students missed three other items, two of which

Table 2 Participant descriptive statistics: M , SD s, and response ranges

		M	SD	Response range
Phonological awareness	Orthographically similar rhymes (out of 20)	16	3.16	10–19
	Orthographically dissimilar rhymes (out of 20)	15	3.26	9–19
	Overall (out of 40)	31	6.02	21–37
Decoding	Overall (out of 20)	11	3.74	4–15

were orthographically similar rhyme pairs with orthographically and phonologically similar distracter items (*house*, mouse, and owl; *tree*, bee, and train). The third item was an orthographically dissimilar rhyming pair with a distracter item that was orthographically and phonologically similar (*wheel*, seal, and whistle). Errors on all three of these items could be orthographical or phonological in nature. All other items were missed by less than 50% of the students.

A second analysis was conducted on correct responses. Of particular interest were items that had orthographically dissimilar rhyming pairs and orthographically and phonologically similar distracters (*chair*, pear, chicken). Correct responses on these items would suggest rhyme decisions were being made based upon the phonological features of the word. There were a total of 11 of these items, 90% (10/11) of which were answered correctly by six or more students, showing some of these students do make rhyme judgments based on phonological information alone.

The younger students were equally as able to make rhyme judgments as the older students in the group. For example, the student 7 years and 7 months old was as good at making rhyme judgments as students 2 years older than him; all achieving 82.5% correct.

Six of the ten students in this group were reading at or slightly above grade level. Examination of rhyme judgment and reading level showed that four of those six had greater than 80% accuracy on the rhyme judgment task, whereas two students reading on grade level scored just greater than 50% accuracy. Furthermore, three of the four students reading below grade level also achieved greater than 80% accuracy on the task. Similarly, length of time being instructed in reading with visual phonics did not seem to influence how well students performed on the rhyme task or their reading level. Figure 4 shows student performance on the rhyme judgment task in relationship to reading level and length of time in reading instruction using visual phonics.

Decoding

Like the phonological awareness task, the decoding task was analyzed along several dimensions: overall accuracy for the group, error analysis per phoneme

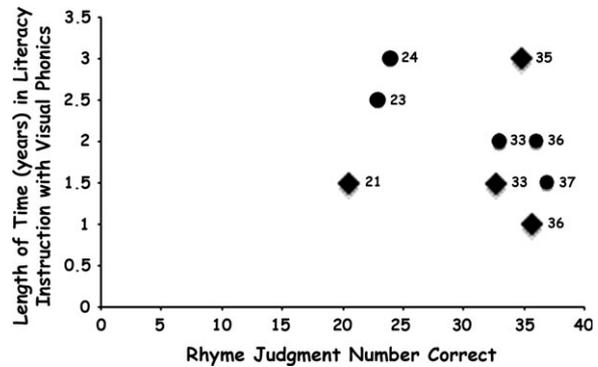


Figure 4 Relationship between length of time in literacy instruction, performance on the rhyme judgment task, and reading levels. Circles represent students reading on or above grade level. Diamonds represent students reading below grade level. Two data points are represented at (33, 2).

position in the distracter items, and individual performance across age, reading level, and length of time being instructed in reading with visual phonics. Results from a one-sample *t* test revealed that the group mean for overall accuracy on the decoding task ($M = 11.0$, $SD = 3.74$) was significantly greater than chance, $t(9) = 5.07$, $p < .01$. The effect size d of 1.60 indicates a large effect. Although their performance of 55% was lower than the group performance of 64% accuracy reported by Dyer et al. (2003), the current group's performance was still impressive. Only one student performed exceedingly low on this task, achieving 3/20 correct. The students' range of percent correct was 15–75%.

Students' performance on each item on the decoding task was disaggregated to determine if there were patterns among the distracter types. This analysis showed that errors were made relatively equally among distracters with different initial consonants, different medial vowels, and different final consonants. Age did not seem to be important for decoding skill. Younger students were just as good at decoding the visual phonics symbols as their older classmates.

All six of the students reading on grade level were better decoders than the students performing below grade level in reading. Length of time of literacy instruction with visual phonics did not seem to influence how well students performed on the decoding task nor their reading level. Figure 5 shows student performance on the decoding task in relationship to reading

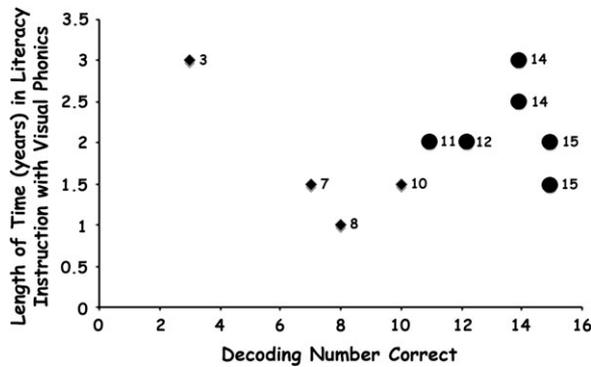


Figure 5 Relationship between length of time in literacy instruction, performance on the decoding task, and reading levels. Circles represent students reading on or above grade level. Diamonds represent students reading below grade level.

level and length of time in literacy instruction with visual phonics.

Phonological Awareness and Decoding

There was no discernable pattern between students' performance on the rhyme-judgment task and their performance on the decoding task. Students better at the rhyme task were not necessarily better at the decoding task or vice versa. Only two students performed equally on both tasks. Figure 6 demonstrates this relationship.

Discussion

At the outset of this study, it was hypothesized that reading instruction using visual phonics with DHH students would be correlated with increased ability to carry out phonological awareness and decoding tasks. These 10 students were able to complete both tasks with greater than chance performance, supporting this hypothesis.

For the phonological awareness task, the 10 students as a whole made rhyme judgments at a rate that was statistically greater than chance performance. This significance held for both orthographically similar and orthographically dissimilar items. Furthermore, item analysis of correct responses showed an important and interesting pattern. Students judged orthographically dissimilar rhyming pairs with orthographically and phonologically similar distracters at

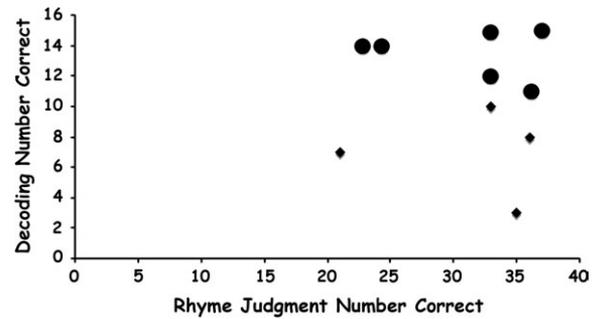


Figure 6 Relationship between performance on the rhyme judgment, the decoding task, and reading levels. Circles represent students reading on or above grade level. Diamonds represent students reading below grade level.

a high rate of accuracy. In other words, despite having both visual- and sound-based similarity, the distracter did not confound the students' rhyme judgment. Correct responses were achieved for 90% (10/11) of those items, making this pattern quite consistent. Both Dyer et al. (2003) and Sterne and Goswami (2000) reported that their participants made use of orthographic similarity over phonologic similarity on the rhyme judgment task. The certainty in responses in this study indicates that the students used phonological information alone to make rhyme judgments.

Results did not support a relationship between reading ability and rhyme judgment for these students. For example, four of the six students who were reported to be reading at or slightly above grade level performed with greater than 80% accuracy on the rhyme judgment task. At the same time, however, three students reading below grade level performed with a similar level of accuracy on the same task. Dyer et al. (2003) showed that for their 49 DHH students, rhyme judgment was positively correlated with reading ability, making this finding somewhat unexpected. Similarly, no correlation was found between length of time in literacy instruction with visual phonics and rhyme judgment skills. The students in this study had been receiving literacy instruction supplemented by visual phonics for 1–3 years. Students participating in that instruction for greater amounts of time were not necessarily better at rhyme judgment than those participating for less time.

For the decoding task, the group performance was statistically greater than chance. When shown a picture

of an object, students tended to choose the correct set of visual phonics symbols that when “decoded” (verbally or not) represented the picture. This finding indicates that the students used some process of label (or concept) storage and retrieval that was based upon the phonological information of the English word labels. Students reading at, or slightly above, grade level were better decoders than their classmates. This is inconsistent with the findings from the phonological awareness task where students better at rhyme judgment were not necessarily the better readers. According to Wagner and Torgesen (1987), rhyming skills with hearing children frequently yielded lower correlational values than other phonemic awareness tasks; this may be the case here as well. Similar to the findings for the phonological awareness task, the length of time in literacy instruction with visual phonics did not seem to affect students’ performance on the decoding task.

Implications

DHH students may have underdeveloped internal phonological representations with which they try to make sense of the alphabetic code (Leybaert, 2005). These underdeveloped representations are thought to be a result of the lack of specificity in input. Students typically gain information about the phonologic code (and spoken English) through varying amounts of residual hearing, speechreading cues, and participation in speech therapy. However, none of these avenues provide complete access to the phonologic code.

Visual phonics addresses this dilemma via the visual, tactile, and kinesthetic input related to the phonemic structure of words. Using visual phonics, complete information about the phonologic code is provided at the isolated phoneme and word level, not in communicative contexts. As used with students who are communicating in sign language, visual phonics can be used as a supplemental tool in literacy instruction, as described in this study. The language of instruction can remain manual (via ASL), and the previously inaccessible or partially accessible features of spoken English are rendered accessible.

In this study, the students’ successful use of phonological judgments on the rhyme judgment task and

their accuracy on the decoding task may be an indication that literacy instruction in visual phonics yields better differentiated internal phonological representations. The students’ performance on the decoding task showed that they seem to be storing labels for concepts “phonologically.” In other studies, Trezek et al. have demonstrated the efficacy of using visual phonics to enhance reading instruction with DHH students (Trezek & Malmgren, 2005; Trezek & Wang, 2006; Trezek et al., 2007).

Limitations

Several limitations associated with this research are acknowledged. The lack of relationships between reading ability and rhyme judgment and length of time in literacy instruction with visual phonics and rhyme judgment for these students may be due to independent variables uncontrolled for in this study. For example, the mixed-grade primary teacher who instructs these students in reading reported that despite years of literacy instruction with visual phonics, at least two of the older students (who were also below-grade-level readers) have inconsistent attendance at school. There may have been other concomitant factors associated with students’ learning processes that were also present; however, these factors were not assessed.

Additionally, although small sample sizes are not uncommon in research in deaf education, this study included only 10 students from an intact classroom. Larger sample sizes will provide stronger statistical correlations among variables.

Conclusion

The results of this study show that reading instruction using visual phonics may be a viable tool in teaching phonological awareness and decoding skills with some DHH students. Visual phonics provides visual, tactile, and kinesthetic support for phoneme perception, without the need for hearing or articulation. This additional information for understanding how spoken language maps to print may provide the cognitive support needed by many DHH students as they learn to read.

These findings also point to areas for further investigation including designing more experimental

and quasi-experimental studies investigating the unique contribution to reading achievement that visual phonics may provide. Additional intervention research such as that conducted by Trezek et al. will

enhance the professional conversation and potentially lead to expanding the kinds of literacy instructional tools we implement with our DHH students in the classroom.

Appendix

List of word sets used in the rhyme judgment task

Type	Cue	Rhyme	Distracter	Type	Cue	Rhyme	Distracter
Word set—dissimilar distracter item to the target							
O+	Bat	Hat	Key	O−	Eye	Pie	House
O+	Spoon	Moon	Feet	O−	Tie	Eye	Brown
O+	King	Ring	Cheese	O−	Whale	Nail	Stairs
O+	Nail	Snail	Snake	O−	Rain	Plane	Key
O+	Fan	Man	Cake	O−	Light	Kite	Bag
O+	Sun	Gun	Rabbit	O−	Drum	Thumb	Leaf
O+	Sock	Clock	Bed	O−	Cheese	Knees	Cloud
O+	Star	Car	Blue	O−	Rope	Soap	Comb
O+	Corn	Horn	Ring	O−	Wheel	Seal	Light
Word set 2—similar distracter item to the target							
O+	Pear	Bear	Pig	O−	Wheel	Seal	Whistle
O+	Rake	Cake	Rabbit	O−	Three	Key	Thumb
O+	Bag	Flag	Book	O−	Plane	Rain	Pants
O+	Boat	Coat	Moon	O−	Shoe	Blue	Sheep
O+	Phone	Bone	Feet	O−	Kite	Light	Key
O+	Top	Mop	Ten	O−	Seal	Wheel	Saw
O+	Mouse	House	Owl	O−	Bear	Hair	Pie
O+	Train	Rain	Tree	O−	Key	Bee	Kite
O+	Clown	Brown	Clock	O−	Bed	Head	Boat
O+	Tree	Bee	Train	O−	Box	Socks	Pig
O+	Run	Gun	Ring	O−	Chair	Pear	Chicken

Note. O+, orthographically similar rhyme pairs; O−, orthographically dissimilar rhyme pairs.

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See-the-Sound

Visual Phonics

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Using See-the-Sound/Visual Phonics

See-the-Sound/Visual Phonics was conceived as a mechanism to make the phonemic aspects of spoken language visible to students who are DHH. It consists of 45 hand cues and symbols. The hand cues provide visual and kinesthetic information that can be associated with the way a sound is produced verbally. For example, the /p/ sound is represented with a hand cue that simulates the “plosiveness” of /p/ - the air being released from the lips. The symbols are unique and are used to pair with letters to provide students with a visual correlate for the sound a letter might “make” in a particular word.

During trainings, participants frequently receive suggestions about how Visual Phonics can be used in classroom instruction. Visual Phonics can be used with any reading curriculum as an assistive tool. It is also frequently used by Speech-Language Pathologists who are working on sound production with their students.

Who uses Visual Phonics?

Teachers, instructional assistants, and Speech/Language Pathologists can use Visual Phonics for literacy and speech production and perception. Some parents use Visual Phonics to help their children master the concepts of phonemic awareness and phonics.

Does Visual Phonics work?

There are years of anecdotal evidence that support its use with many children. There's been little empirical evidence that validates the efficacy, despite its use for over 20 years with children in schools. Recently, there have been several published research articles that support its use.

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Program for the Deaf Components

The Fairview Learning five component program provides direct access to ASL and opens a window for hearing and deaf people to begin to think and sign bilingually.

1. The Bridge Lists & The Bridging Process

The Bridge Lists are English phrases requiring American Sign Language (ASL) translation for understanding. For example, down the street requires multiple sign concepts, depending upon the context. "A ball hit down the street," is signed differently from, "A man walked down the street." If down the street is signed the same way in both sentences, meaning is lost. Bridging also allows the conceptual signing of phrases, rather than the word for word signing required by most sign codes. For example, if one signs, Put out the fire, word by word, one is literally signing, Pick up the fire and put it outside. Bridging provides the visual translation of the phrase's true meaning, Extinguish the fire.

2. Adapted Dolch Words

The Dolch Words are commonly used words found in the majority of basal readers. Deaf children and hearing children do not learn the Dolch words the same way. For example, made is a Dolch word which has multiple meanings – I made a present for you; I made my bed; I made money; My brother made me do that; The rain made the grass green. Most hearing children acquire the various meanings effortlessly through their sense of hearing. Deaf children, on the other hand, must see the different meanings in context in order to acquire them.

3. Phonemic Awareness

Even though skilled deaf readers make use of phonological information, just how they utilize the code to figure out a word or passage remains a mystery! Therefore, our shortcut to basic phonemic awareness and teaching strategies allow all readers a basic structure to decode the printed word.

4. Reading Comprehension & Bridging

Structured reading exercises are used to teach children better comprehension, decoding skills, and how to use contextual clues. Bridging, as well as other interactive techniques, allow Deaf children to steadily progress in their reading skills.

5. ASL Development/Spontaneous Written English

Language experience stories facilitate the development of reading skills with Deaf students. Two kinds of interactive situations are utilized. The first situation involves students telling personal stories to the ASL instructor who then retells the stories modeling proper ASL. Students then sign their stories again, implementing proper ASL structures. The second situation occurs during other class times when students translate their ASL stories into written English or dictate spontaneous and personal short stories to their teachers. These stories are edited into proper English by the teachers, and copied and illustrated by the students.

A Fun Way to learn grammar...



Manipulative Visual Language

ENGLISH

What is MVL?

MVL is an innovative system which presents the rules of grammar visually, enabling students to see, touch, and manipulate parts of speech using colorful, appealing shapes made of wood or plastic. It is a tool to assist teachers in presenting the parts of speech as taught in conjunction with whatever curriculum is in use in the school. MVL can be used as a supplementary system to be used in the teaching of English grammar. It is also a new tool to help crack the code of English.

As a tool, MVL may also be used to represent the parts of speech in other languages, making it easier for students of foreign languages to see the similarities and differences in structure between their first and second languages.

What are the shapes?

Three-dimensional wood blocks to use on desks, two-dimensional magnetic plastic shapes to use on a whiteboard, and personal two-dimensional plastic shapes for individual students to manipulate on their own desks.

How does MVL work?

MVL takes the basic parts of speech and presents them in the form of visually appealing wood or plastic blocks that can be manipulated by the teacher and student. Correct grammar structure is presented visually in the form of sentence "maps" that enable students to follow logical patterns of sentence formation.

Where should MVL be used?

In a word: EVERYWHERE! We provide workshops for teachers, to show them how to use MVL in their classrooms, for parents, to help them help their children with their homework, and for students directly! The blocks can be used to illustrate sentence structure as a part of any curriculum lesson.

Who developed MVL?

Two teachers, one Deaf, one hearing, working together at a school for the Deaf, have developed this system of blocks, posters, sentence maps, and classroom activities over the past five years. They have achieved dramatic and lasting results.

When should MVL be used?

As early as possible! Language acquisition is most efficient at early ages, so the earlier MVL can be introduced, the better, but adults love it too! MVL is intended to be used in the elementary grades, in order to establish a strong foundation in understanding grammar. BUT MVL can also be used with middle school and even high school students who are still struggling with English.

Why use MVL?

The best reason of all: the students love it! Using the blocks makes learning fun.

Manipulative Visual Language **A TOOL TO HELP CRACK THE CODE OF ENGLISH**

By Jimmy Challis Gore and Robert Gillies

Hearing children learn English through constant exposure to the spoken language that surrounds them. For instance, young hearing children understand the correctness of “The dog is eating the cookie” long before they can explain what *the*, *is*, and the suffix *-ing* mean in that sentence. Hearing children just “know” that this sentence sounds right—as opposed to “Dog eat cookie,” which sounds wrong even to many very young children.

But where are the models that will enable deaf children to crack the code of English—to assimilate this syntax?

At a school for deaf children in Maine, we are answering that question with Manipulative Visual Language (MVL). For students with hearing loss, especially those in elementary school, MVL provides a visual model of English in its basic forms. Although basic elements of this technique are in use in some Montessori schools, we developed this system, refining MVL in order to address some of the difficulties in teaching English grammar to deaf students.

Shapes

The most striking feature of MVL is the use of colored shapes to teach the parts of written English. Black equilateral triangles represent nouns, red circles represent verbs, purple triangles represent pronouns, green crescents represent

Jimmy Challis Gore, M.Ed.,

teaches in the English Language Institute at Gallaudet University.

Robert Gillies, B.A. Hons.,

teaches at the Governor Baxter School for the Deaf in Falmouth, Maine.

The authors welcome comments about this article:

jgore3312@aol.com (Gore)

and caitnor@earthlink.net

(Gillies). They also invite you to

check out their Web site:

<http://www.green-bridge.org>.

KidsWorld Deaf Net E-Document: *Keys to English Print: Phonics, Signs, Cued Speech, Fingerspelling, and Other Learning Strategies*

A collection of articles by multiple authors

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prepositions, and blue equilateral triangles represent adjectives. Using these shapes, we show the patterns of simple sentence structure.

Once students become accustomed to the pattern of shapes that constitute a sentence, they can see that a noun needs an article while a proper noun does not, that adjectives immediately precede nouns, and that every basic sentence needs a verb.



In a system to represent English visually, teachers in Maine use blocks in different shapes and colors. Black equilateral triangles represent nouns, red circles represent verbs, purple triangles represent pronouns, green crescents represent prepositions, and blue equilateral triangles represent adjectives. Other information about the English word may be included on the color block. For example, blue triangles with a white number sign mean adjectives of number or quantity. Photos courtesy of Jimmy Challis Gore.

We often use stories to introduce the shapes as symbols to students. Besides providing a memory aid, this technique helps explain a symbol's origins and purpose. For example: The little blue triangle [which denotes the article] was looking for a friend one day and approached the big 'N' triangle [proper noun]. 'N' was very proud, and said: "Go away! I don't need you! I prefer to be alone!" Luckily for the little blue triangle, there was a kinder triangle, the 'T' triangle [common noun], and it was very happy to have a friend. The two of them became inseparable.

Materials

We find that students can work with these colored shapes in a variety of materials. For example, three-dimensional wooden shapes feel comfortable in

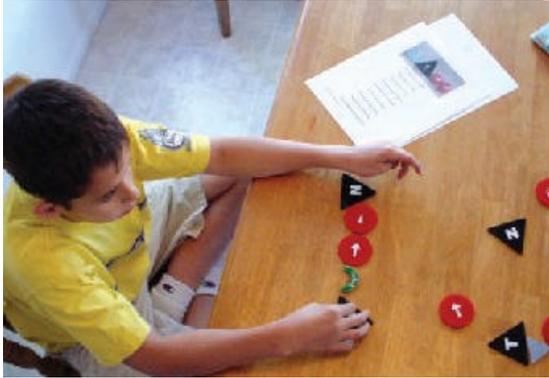
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the hand when students want to organize and sequence shapes at their desks.



We have observed that some students like to have a set of these wooden shapes on their desks when they are practicing a particular sentence structure. As one student said, “I cannot hear the order. I need to see and touch it, and that way I can understand it.”

When our students are “symbolizing” sentences on the whiteboard, they work with two-dimensional shapes made from sturdy, vibrantly colored pieces of plastic with magnetized backings. The visual impact of these shapes against a white or black background is striking.

In the hands of imaginative teachers, the two- and three-dimensional shapes can be used in many creative and meaningful ways. If teachers are working on a set structure, they can set up a left-to-right sequence of shapes, placing the shapes on a road or train track they have drawn, so students can identify the elements they need to make a sentence. Then the teacher can add forks in the road to show that a choice has to be made: for example, between *is* and *are*, or *the* and *her*. This approach is flexible enough to let teachers target specific grammar goals.

Another creative activity relates to verb tenses. We draw a timeline based on a short length of real videotape; students who have just acted out a brief videotaped drama can then plot the verbs along the line by putting the shapes along it. They can see the sequence of actions, and compare progressive and simple verb tenses with ease.

Like many elementary school teachers, we have filled the walls of our classrooms with examples of the most common patterns in English sentence structure. The big difference in our classrooms, though, is that we display sequences of shapes that illustrate these sentence patterns rather than printed advice for students to follow in developing their understanding of grammar. Our

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students vividly see that before a noun they usually must put an article, that an article follows a preposition, and that a noun and subject are followed by verbs.

Our students use an “MVL Sentence Map” to build on what they have learned from their work with the wooden and plastic shapes. On this writing guide, which resembles a road map, students can trace a line from left to right, selecting the elements they will need to write a clear, simple sentence. There are several options along the way, but on this “road” there is no way to bypass the first verb! For instance, beginning writers quickly become dependent on the article *the*, but we need to encourage them to consider other options. So when they edit their sentences with the map, they see that when the road forks at the little blue triangle, it also forks for the possessive noun and possessive pronoun. They can reflect on their choice of *the*, and can decide if there is a better option at this point on the map. Before the common noun there also comes a fork for an adjective. As they edit their sentences, they can consider this option and add an adjective to improve the sentence. We designed the sentence map for those students who are reluctant writers, and it is a very popular tool because they are able to see what they have to write—and in what order—to create a clear, simple sentence.

We have one sentence map near an old fire alarm on the wall. We “wired” the first verb on the map to the old alarm. Students enjoy pointing this out to visitors, and warning of the perils of bypassing that “red” word! Mastery of the structures within the map gives students an excellent foundation for building more complex sentence structures.

Shape Variants

In the three years we have been developing and applying MVL, we have found that the shapes alone, although useful, cannot convey all the information our students need. For instance, the shapes are not sufficient to show the different forms that verbs, nouns, adjectives, and pronouns can take.



We found that working with the menu of five basic shapes was something like ordering a vegetable in a restaurant. It narrows the options (and is preferable to simply asking for food), but the chef will need more information than just “vegetable.” What kind of vegetable? How do you want it cooked? The challenge is much the same with, for instance, the red “verb” circle. As a way of classifying a particular word, it is a great start. But a young student who is learning to write needs to know more. That is why we developed variants within and around the “master” shapes. The red circle means verb; the graphics we have added to the red circle give a definition of the verb’s exact meaning. We can clearly convey tenses, as well as different forms of the auxiliary verbs *to be*, *to have*, and *to do*. Students can see what verb tenses look like and, significantly, they can see what they mean. Different noun forms (names, things, places, possessives); auxiliary verbs; and subject, object, and possessive pronouns are likewise clearly and strongly defined within their “master” shape by these variants.

Many older students are unsure of the word order when they have to use two or three adjectives in the same phrase or sentence. For example, is it old wooden chair or wooden old chair? We designed nine different symbols, one for each of nine categories of adjectives, with a symbol within the blue triangle. Once students have this sequence memorized, they can use two or more adjectives in a sentence with greater confidence.

MVL and Reading

While MVL is a powerful tool for helping students with writing, we also use it in reading activities. In one exercise, students use the symbols and their variants to analyze and symbolize sentences or blocks of text. Using colored pencils, they seek out a particular structure and mark above the words



English Print: Phonics, Signs, Cued Speech, Fingerspelling, and Other Learning Strategies

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appropriately. Students say they enjoy this exercise in code breaking because it helps them imprint basic structures into their memories, further reinforcing patterns in English they never get to hear.

Sometimes when we are working with a projected text in a group reading exercise, our students encounter an unknown word. We can use MVL to help narrow the options. Take, for example, the sentence *Jane registered the car*. If a student does not know what *registered* means, we can set up the magnetized shapes for *Jane*, *the*, and *car*. It is a real moment of triumph if a student puts a symbol for a past tense verb over *registered*. It is possible to make a game out of this. As with cloze procedure, you can block out a word on the projected text and give students a point for choosing the right MVL shape and a bonus point for providing the right word.

Tradition was Not Enough

We developed MVL in reaction to traditional ways of teaching English grammar, which almost always entail presentation through text. There is a place for this approach, but it needs to be supplemented because, quite simply, using words to explain words can be a baffling approach if words are themselves the problem! Many deaf adults have only bad memories of this kind of text-only approach. MVL lets students see how the basic parts of English grammar work together—literally, it lets them get their hands on grammar.

At first sight, a teacher might find the many symbols in MVL daunting and worry that students will find them even more so. But as any Windows-era computer program shows, most people today are visual learners—whether deaf or hearing, old or young, but especially the young. Computer programs display a large quantity of visual symbols, or icons, on screen. For example, we counted at least 60 such symbols around the screen for the word processing program we used to type this paper: Paste is a little brush, cut is a pair of scissors, etc. After a few “touches” on each symbol, it all starts to seem intuitive. In a somewhat similar manner, MVL presents students with a system of symbols whose logic quickly becomes evident because the system is so visual and tactile.

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We recommend using MVL in the elementary grades in order to establish a strong grammar foundation, but we find that it is entirely appropriate for middle school, high school, and even adult students struggling with English. Though the colorful forms can seem “young” at first to these students, their excitement is evident when they finally grasp a grammatical concept for the first time. “It takes a few weeks to pick up the concepts with the shapes,” says one adult learner. “But,” she adds, “without them it would take years.”



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Published Background Research

Reading Next Correlation

According to Reading Next, the landmark publication from the Alliance for Excellent Education, up to 70% of adolescent students struggle with reading and require differentiated instruction. As the leader in differentiated literacy solutions, Achieve3000 Solutions parallel the vision of Reading Next and are aligned to its recommended key elements of effective reading programs.

Writing Next Correlation

In response to reports that point out that our nation's literacy crisis includes writing as well as reading, Achieve3000's Writing Center offers opportunities for students to write in different contexts, formats, and for different purposes. At the same time, Achieve3000 also concentrates on **all 11 key elements** of effective writing programs identified by *Writing Next*.

Response to Intervention (RtI) Correlation

RtI promotes early identification of students at risk for learning difficulties, along with high quality intervention matched to student needs. Achieve3000 addresses the core principles of RtI:

- **Multi-tiered intervention model with increasing intensity of services:** With Achieve3000, all students cover the same topics and grade-level standards. The reading level of the content is matched to student ability so each child works in his or her zone of proximal development.
- **High-quality research-based classroom instruction:** Achieve3000 is founded on decades of scientific research into how children learn to read and was developed with the guidance of renowned reading researchers.
- **Universal screening of academics:** LevelSet, an online assessment tool that utilizes the Lexile Framework™, offers a scientific means of matching students to informational texts and can complement your RtI school-wide assessments.
- **Continuous monitoring of student progress:** Achieve3000 provides ongoing formative assessment - built right into the instructional routine.

Double the Work Correlation

Adolescent English Language Learners (ELLs) are developing proficiency in English while learning core academic content in English. As such, they do double the work of native English speaking students. In response to the literacy crisis among ELLs, the report, Double the Work, identifies six challenges to improving the literacy of adolescent ELLs. Of the six, Achieve3000 provides support to address *Lack of Appropriate Assessments, Lack of Appropriate and Flexible Program Options, and Limited Use of Research-Based Instructional Practices*. In particular, Achieve3000 addresses all nine of the Potential Solutions to Limited Use of Research-Based Instructional Practices.

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Research Foundation
Paper

Research Foundation & Evidence of Effectiveness for FASTT Math™



In the twenty-first century, solid math skills are a prerequisite for school achievement and success in the workplace. Although national math achievement has improved slightly, too many students still do not have basic math skills. According to the 2003 National Assessment of Educational Progress (NAEP) results, 23 percent of fourth graders and 32 percent of eighth graders performed at Below Basic levels in mathematics. Many of these struggling students lack fluency in basic math facts. With *FASTT Math*[™], a new software program from Tom Snyder Productions, students gain math fact fluency in addition, subtraction, multiplication, and division. Developing fluent recall of the basic facts allows students to focus on more complex computations, problem solving, and higher-order math concepts.

FASTT Math uses research-validated methods to provide systematic instruction and continuous practice to help students automatically recall and understand math facts. The program uses adaptive technology to offer each student a customized learning experience based on their individual needs.

This paper introduces the research-based principles behind *FASTT Math* and explains the program's unique features that enable student success. Finally, the paper presents efficacy data that shows the dramatic improvement in math fact fluency for students who received instruction using the *FASTT Math* approach.

Research Foundation &
Evidence of Effectiveness
for FASTT Math™



Research Foundation & Evidence of Effectiveness for FASTT Math™

Table of Contents

Purpose & Rationale	3
Mathematical Knowledge	5
Normal Development of Math Fact Fluency	6
Developing Fluency in Math-Delayed Children	8
• Identification of Fluent and Non-Fluent Facts	8
• Restricted Presentation of Non-Fluent Information	9
• Student Generation of Problem/Answer Pairs	10
• Use of Controlled Response Times	10
• Spaced Presentation of Non-Fluent Information.....	11
• The Appropriate Use of Drill and Practice	12
Effectiveness of the <i>FASTT Math</i> Approach.....	12
References.....	14

PURPOSE & RATIONALE

PURPOSE

The goal of the *FASTT Math* program is to develop in students the ability to retrieve the answers to basic math facts from memory, both accurately and fluently. Fluently, here, means automatically and with understanding. (The *FASTT Math* program helps to identify and remediate those students who lack a conceptual foundation of the operations and math fact quantities.) Educators and cognitive scientists agree that the ability to recall basic math facts fluently is necessary for students to attain higher-order math skills. Through an adaptive program of systematic instruction and practice, *FASTT Math* helps students to abandon the use of inefficient strategies for determining the answers to basic facts, such as finger counting, and helps them develop the capacity to retrieve the basic facts from memory quickly and effortlessly.

RATIONALE

FASTT Math uses the FASTT system (*Fluency and Automaticity through Systematic Teaching with Technology*), based on nearly two decades of research on the development of mathematical fluency in math-delayed and non-math-delayed children. The rationale for this program is that all human beings have a limited information-processing capacity. That is, an individual simply cannot attend to too many things at once. Grover Whitehurst, the Director of the Institute for Educational Sciences (IES), noted this research during the launch of the federal Mathematics Summit in 2003:

“Cognitive psychologists have discovered that humans have fixed limits on the attention and memory that can be used to solve problems. One way around these limits is to have certain components of a task become so routine and over-learned that they become automatic.” (Whitehurst, 2003)

The implication for mathematics is that some of the sub-processes, particularly basic facts, need to be developed to the point that they are done automatically. If this fluent retrieval does not develop, then the development of higher-order mathematics skills—such as multiple-digit addition and subtraction, long division, and fractions—may be severely impaired (Resnick, 1983). Indeed, studies have found that lack of math fact retrieval can impede participation in math class discussions (Woodward & Baxter, 1997), successful mathematics problem solving (Pellegrino & Goldman, 1987), and even the development

of everyday life skills (Loveless, 2003). And rapid math fact retrieval has been shown to be a strong predictor of performance on mathematics achievement tests (Royer, Tronsky, Chan, Jackson, & Marchant, 1999).

Research by LaBerge and Samuels (1974), Lesgold (1983), and Torgesen (1984) support the notion that fluency in basic skills is a necessary prerequisite to higher-level functioning in both reading and math. They suggest that children often do poorly in these subjects because they may have failed to master the subcomponent processes required to understand text and to solve math problems. A common example can be taken from reading.

Consider a child who cannot recognize words by sight. As he reads he must devote excessive attention to the task of word recognition by sounding out each word phoneme by phoneme. This cumbersome process leaves little room for attention to higher-level processes such as thinking about the meaning of words or sentences. When this occurs, comprehension is poor, and the child learns little from the reading material.

Problems similar to those encountered in reading also occur in math. If a student constantly has to compute the answers to basic facts, less of that student's thinking capacity can be devoted to higher-level concepts than a student who can effortlessly recall the answers to basic facts. For example, a child who is performing multiple-digit division must monitor constantly where he is in that procedure. If the child must use primitive counting strategies to subtract or multiply during the division process, the attention and memory resources devoted to these procedures reduce the student's ability to monitor and attend to the larger division problem. The result is that the student often fails to grasp the concepts involved in multiple-digit division.

Recent research in cognitive science, using functional magnetic resonance imaging (fMRI), has revealed the actual shift in brain activation patterns as untrained math facts are learned (Delazer et al., 2003). As predicted by Dehaene (1997, 1999, 2003), instruction and practice cause math fact processing to move from a quantitative area of the brain to one related to automatic retrieval. Delazer and her colleagues suggest that this shift aids the solving of complex computations that require "the selection of an appropriate resolution algorithm, retrieval of intermediate results, storage and updating in working memory" by substituting some of the intermediate steps with automatic retrieval (Delazer et al., 2004). The research cited above highlights the importance of math fact fluency; however, the computation capabilities of American students appear to be falling. Tom Loveless of the Brookings Institute has

reviewed responses to select items on the National Assessment of Educational Progress (NAEP) and concluded that performance on basic arithmetic facts declined in the 1990s (Loveless, 2003). Clearly, students need help to develop rapid, effortless, and errorless recall of basic math facts.

Mathematical Knowledge

Mathematical knowledge of basic facts can be classified into two categories. The first category, called *declarative knowledge*, can be conceptualized as an interrelated network of relationships containing basic problems and their answers, such as $4+7=11$ or $11-4=7$. The facts stored in this network have different “strengths” that determine how long it takes to retrieve an answer. The stronger the relationship, the more rapid and effortless is the retrieval process. For example, if the fact $2+3=5$ has greater associative strength than the fact $7+5=12$, it will take less time to retrieve the answer 5 to the first of these two problems (Pellegrino & Goldman, 1987).

Ideally, all the facts stored in this network are retrieved from memory quickly, effortlessly, and without error. However, this is often not the case with many students, particularly those with learning problems. These students, for a variety of reasons, have not established a declarative knowledge network; and instead of retrieving facts from memory, they rely on a second category of mathematics knowledge, called *procedural knowledge*.

Procedural knowledge refers to methods that can be used to derive answers for problems lacking pre-stored answers. For example, in the problem $6+8$, a student might use a common “counting on” strategy in which the larger of the two addends (8) is stated and the student increments the smaller addend on his or her fingers while saying 9, 10, 11, 12, 13, 14. Although correct answers can be obtained using procedural knowledge, these procedures are effortful, slow, error-prone, and they appear to interfere with learning and understanding higher-order concepts.

Underlying both declarative and procedural knowledge in mathematics is a type of understanding typically called *number sense*. While several definitions of number sense can be found (see, for instance, NCTM Standards 2004 or Case 1998), academics generally agree that it involves an awareness of number names, values, and relationships. Children with number sense recognize the relative differences in number quantity and how those differences can be represented. Number sense gives meaning both to an automatic math fact and to a computational procedure. Gersten and Chard roughly compare the importance of number sense in computation to the need for phonemic awareness in reading (Gersten & Chard, 1999).

Both are critical building blocks. Garnett describes a typical hierarchy of procedures, or strategies, that rests upon number sense and leads eventually to automatic recall (Garnett, 1992). All elements—number sense, procedural knowledge, and declarative knowledge—must be developed together to achieve full math fact fluency.

Normal Development of Math Fact Fluency

Given the importance of the fluent recall of basic facts, the main concern is how this ability develops. For many children, at any point in time from preschool through at least the fourth grade, they will have some facts that can be retrieved from memory with little effort and some that need to be calculated using some counting strategy. From the fourth grade through adulthood, answers to basic math facts are recalled from memory with a continued strengthening of relationships between problems and answers that results in further increases in fluency (Ashcraft, 1985).

The acquisition of math facts generally progresses from a deliberate, procedural, and error-prone calculation to one that is fast, efficient, and accurate (Ashcraft, 1992; Fuson, 1982, 1988; Siegler, 1988). In a typical developmental path in addition, for instance, students begin adding using a strategy called “counting all” that gives way to a “counting on” strategy, which in turn gives way to linking new facts to known facts (Garnett, 1992). In multiplication, a student might employ repeated addition or skip counting as initial procedures for calculating the facts (Siegler, 1988). With repeated exposures, most normally developing students establish a memory relationship with each fact. Instead of calculating it, they recall it automatically.

Strategy	Representative use to solve 2+4
Counting all	"1, 2...1, 2, 3, 4...1, 2, 3, 4, 5, 6"
Shortcut sum	"1, 2, 3, 4, 5, 6"
Finger display	"Displays 2 fingers, then 4 fingers; says 6"
Counting on from the first addend	"2...3, 4, 5, 6" or "3, 4, 5, 6"
Counting on from the larger addend	"4...5, 6" or "5, 6"
Linking	"2 + 2 = 4, + 2 more = 6"
Retrieval	"6"

In contrast, most math-delayed children, along with those who have never received systematic math fact instruction, show a serious problem with respect to the retrieval of elementary number facts. Fleischner, Garnett, and Shepard (1982), as well as Hasselbring, Goin, and Bransford (1988), have found that

learning-disabled children are substantially less proficient than their non-disabled peers in retrieving the answers to basic math facts in addition and subtraction. Although information is still emerging about the particular difficulties experienced by these children in the retrieval of this information, the evidence that does exist suggests that these children do not suffer from a conceptual deficit (Russell & Ginsburg, 1984), but rather from some sort of disruption to normal development of their network of relationships between facts and answers. That is, these students often have well-developed number sense and procedural knowledge—they can figure out the answer to any fact given enough time. But because they have poorly developed declarative knowledge, they have minimal ability to recall anything but the most basic facts from memory. What this suggests is that there are huge differences in the amount of instruction individual children need to become fluent at retrieving answers to basic math facts.

As shown in Figure 1, by age seven, non-math-delayed students can recall more facts from memory than their math-delayed peers. Further, this discrepancy increases as age increases. As math-delayed students get older, they fall further and further behind their non-math-delayed peers in the ability to recall basic math facts from memory (Hasselbring et al., 1988). In addition, this lack of fluency interferes with the development of higher-order mathematical thinking and problem solving.

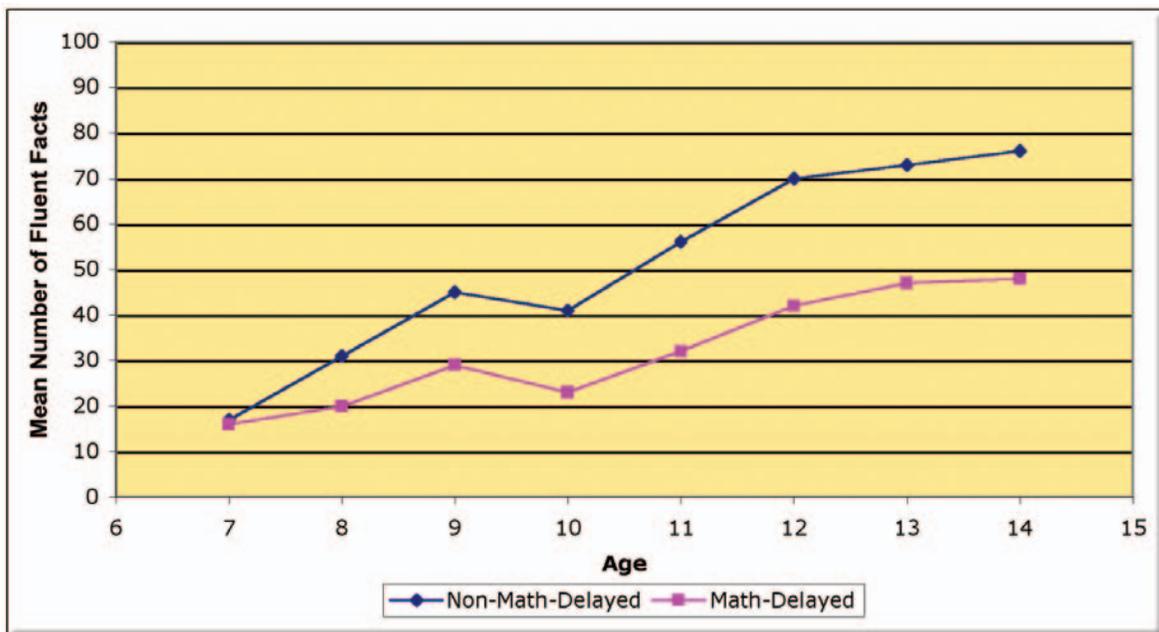


Figure 1. A comparison of the mean number of fluent addition facts by age for Non-Math-Delayed and Math-Delayed students

Developing Fluency in Math-Delayed Children

To counteract the problem described above, the FASTT approach has been used successfully to develop mathematical fluency. It appears that the key to making the retrieval of basic math facts fluent is to first establish a mental link between the facts and their answers. *FASTT Math* embodies several unique design features to help develop these relationships. These features include:

- Identification of fluent and non-fluent facts
- Restricted presentation of non-fluent information
- Student generation of problem/answer pairs
- Use of controlled response times
- Spaced presentation of non-fluent information
- Appropriate use of drill and practice

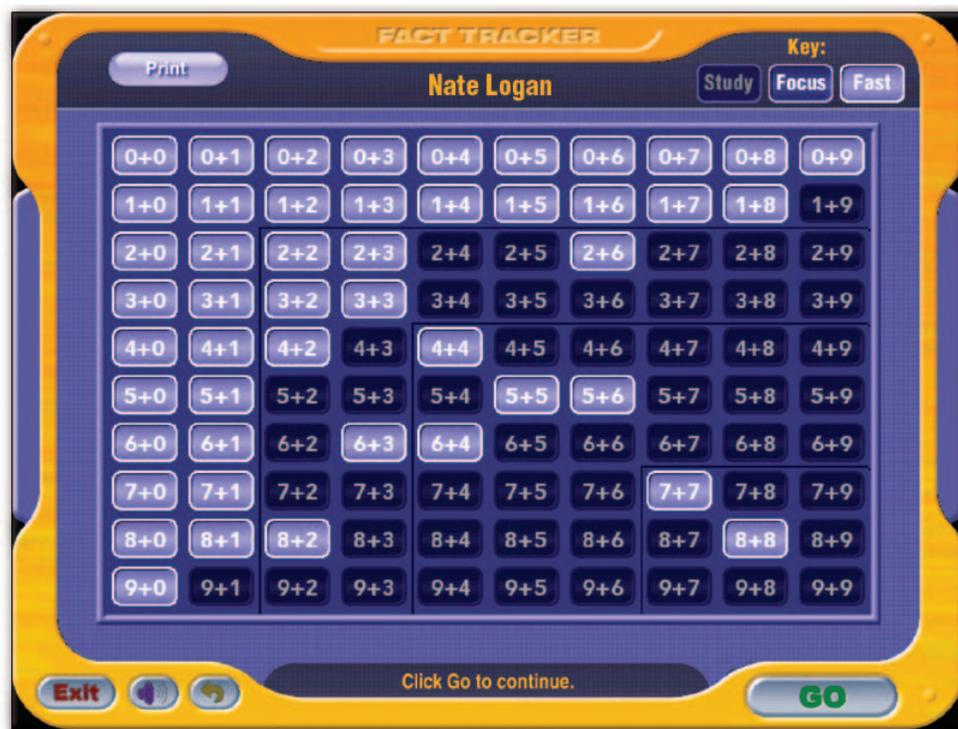
Each of the features listed above (and described in more detail below) adds to the effectiveness of the program.

IDENTIFICATION OF FLUENT AND NON-FLUENT FACTS

At any given point in time, most students recall some facts automatically; they answer others using counting or other non-automatic strategies. Drill and practice programs have demonstrated a positive effect on improving the retrieval speed for facts already being recalled from memory. However, drill and practice had no effect on developing automaticity for non-recalled facts (Hasselbring, Goin, & Sherwood, 1986). Consequently, to facilitate the automatic recall of all facts, instruction must be focused on non-automatized facts while practice and review are given on facts that are already being recalled from memory. Thus identifying and separating fluent from non-fluent facts is important.

FASTT Math begins with a computer-based assessment that presents all the basic facts in an operation and records the amount of time that the child takes to answer each fact correctly. By measuring the latencies of student responses, the program can accurately determine the facts that are being recalled from memory and those that are solved using a counting strategy. (Note: Response latency is determined by measuring the time difference between simply typing the number 21 and typing the answer when presented with the multiplication fact 7×3 .)

Following this initial placement quiz, *FASTT Math* constructs a fact grid, as shown below. The grid allows the student (and teacher) to visually see the fluent (“Fast”) facts and those that the student answered slowly or incorrectly (“Study” facts). The grid shown here indicates a common pattern in many math-delayed students. This student has automatized most of the facts that include 0 and 1 as the minimum addend (e.g., $0+0$ to $0+9$, and $1+1$ to $1+8$, and the reversals). Also, he has automatized a few facts with 2 as a minimum addend, and some of the doubles (e.g., $3+3$, $4+4$, and $5+5$).



Fact Grid screen for a typical math-delayed student

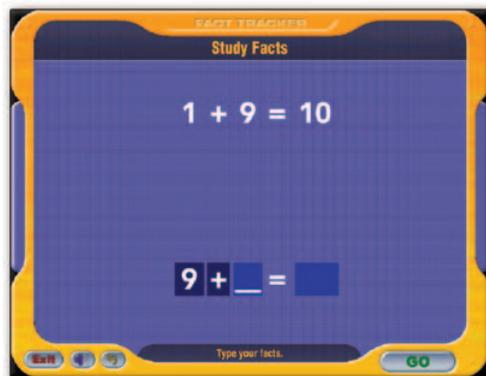
RESTRICTED PRESENTATION OF NON-FLUENT INFORMATION

The program expands the student’s declarative knowledge network by building on existing knowledge. Consider the student whose fact grid is shown in the image above. The *FASTT Math* software would begin instruction on the facts $1+9$ and $9+1$, because the student already has automatized all other facts with a minimum addend of 1. As a general rule, the program selects facts to be automatized based upon the size of the minimum addend. For example, once all facts with a minimum addend of 1 have been automatized, *FASTT Math* begins to select facts with a minimum addend of 2, and so on, until all the “2s” have been automatized.

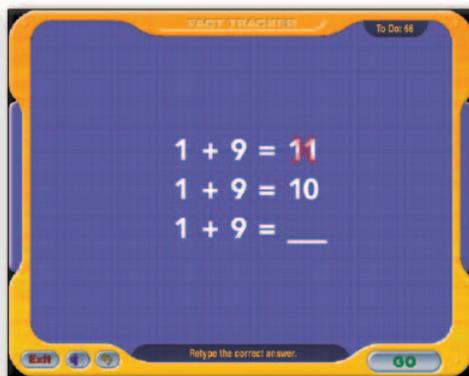
The research (Hasselbring et al., 1988) suggests that it is best to work on developing this declarative knowledge by focusing on a very small set of new target facts at any one time—no more than two facts and their reversals. Instruction on this target set continues until the student can retrieve the answers to the two new facts consistently and without using counting strategies.

STUDENT GENERATION OF PROBLEM/ANSWER PAIRS

Recent fMRI studies of math fact recall (Dehaene et al., 1999; Delazer et al., 2004) suggest that automatically retrieved facts are stored in the same region that houses word associations, suggesting a potential linguistic relationship between the calculation (eight times seven) and its answer (fifty-six). In order to construct a memory relationship of this type, *FASTT Math* explicitly requires students to type each newly introduced fact. By generating the problem/answer pair, students connect the two elements together. And when students falter in holding that connection in memory, the program demands that they retype the fact to reestablish the relationship.



Typing a newly introduced fact



Retyping a fact to reestablish the relationship

USE OF CONTROLLED RESPONSE TIMES

Once a problem/answer relationship is established, *FASTT Math* uses controlled response times to reinforce the memory connection and inhibit the use of counting or other non-automatic strategies. A controlled response time is the amount of time allotted to retrieve and provide the answer to the fact. *FASTT Math* begins with a controlled response time of 1.25 seconds, forcing students to abandon inefficient strategies and to retrieve answers rapidly from the declarative knowledge network.

THE APPROPRIATE USE OF DRILL AND PRACTICE

Only after a student is consistently able to retrieve the answer to a target fact within the controlled response time is that fact added to the child's set of drill and practice facts. Drill and practice has been shown to be effective only with facts that are already being retrieved from memory. *FASTT Math* systematically builds a memory relationship before it reinforces speed of recall with appropriate drill and practice activities.

Effectiveness of the FASTT Math Approach

The principles embodied in *FASTT Math* have been validated over several years of research with more than 400 students. This research with math-delayed children has shown that the *FASTT Math* approach can be extremely powerful for developing fluency with basic math facts. Generally, the findings show that when used daily, for about ten minutes, most math-delayed children can develop fluency with all basic facts in a single operation after approximately 100 sessions. The key to success appears to lie in the consistent use of the program. As expected, students who use the program regularly do much better than students who are only occasional users.

As shown in Figure 2, the effects of using the *FASTT Math* approach can be quite striking. In a study conducted by Hasselbring and Goin (1988), three groups of students were matched for age, sex, and race. Two of the groups consisted of math-delayed students and the remaining group consisted of non-math-delayed students. In the experiment, one of the math-delayed groups (Math-Delayed Experimental) received an average of 54 ten-minute sessions on the software program for addition; the other two groups (Non-Math-Delayed and Math-Delayed Contrast) received only traditional fluency instruction delivered by their classroom teachers. As the data shows, the math-delayed students receiving instruction with the *FASTT Math* approach gained, on the average, 19 new fluent facts while their math-delayed peers receiving traditional instruction gained no new facts and their non-math-delayed peers gained only 7 new facts. Perhaps more impressive are the maintenance data. When the experimental students were tested four months after the post-test following summer vacation, the students regressed by only 6 facts, indicating that once facts become fluent through this method, they are retained at a high level.

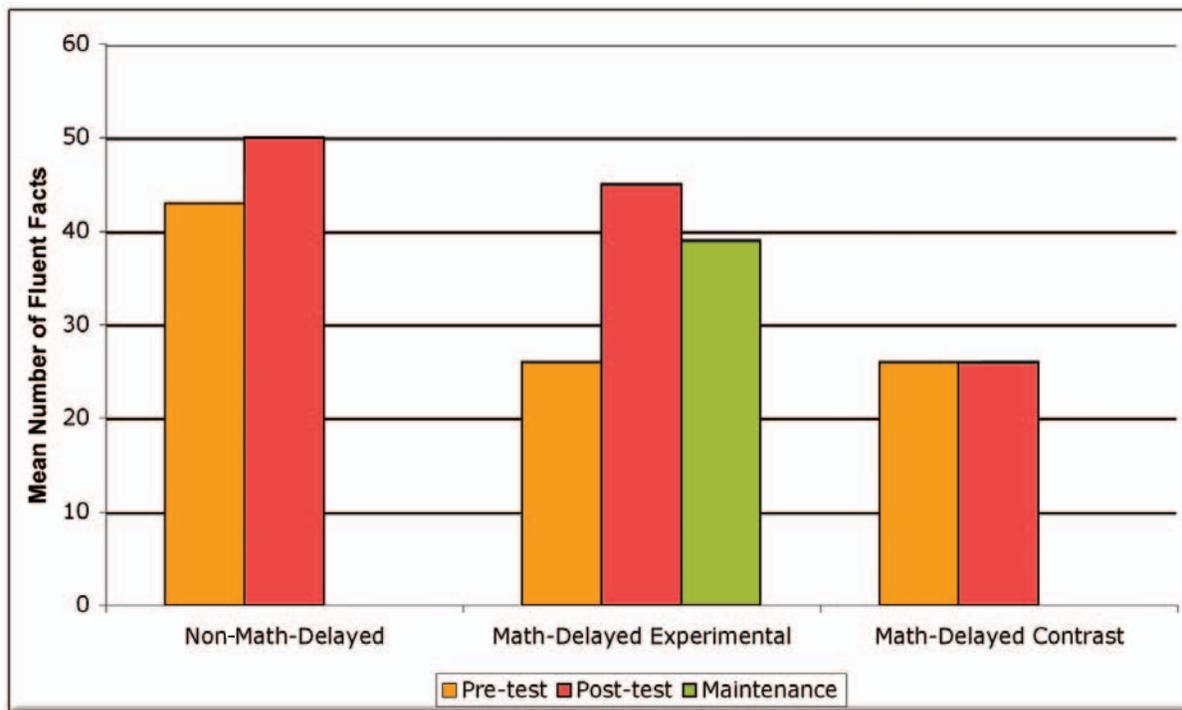


Figure 2. A comparison of the mean number of fluent addition facts for Non-Math-Delayed and Math-Delayed students

The results of this experiment have been replicated several times across all four operations. In all cases, when used consistently, the *FASTT Math* approach has a positive effect on developing mathematical fluency in both math-delayed and non-math-delayed students. Although *FASTT Math* is effective for all students needing assistance with developing fact fluency, it appears to be especially effective for students labeled as at-risk and learning disabled.

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ABOUT TOM SNYDER PRODUCTIONS & SCHOLASTIC

About Tom Snyder Productions

Tom Snyder Productions, Inc., a Scholastic company, is a leading developer and publisher of educational software for K-12 classrooms. The company was founded over 20 years ago by Tom Snyder, a former science and music teacher who pioneered the utilization of technology in the classroom to improve student understanding and performance. Today, Tom Snyder Productions has received over 150 prestigious industry awards and its products are used in over 400,000 classrooms. The company's software titles cover each curriculum area, and its professional development team has helped more than 175,000 teachers learn to integrate technology effectively into their curricula. (www.tomsnyder.com)

About Scholastic

Scholastic Corporation (NASDAQ: SCHL) is the world's largest publisher and distributor of children's books and a leader in educational technology. Scholastic creates quality educational and entertaining materials and products for use in school and at home, including children's books, magazines, technology-based products, teacher materials, television programming, film, videos, and toys. The Company distributes its products and services through a variety of channels, including proprietary school-based book clubs, school-based book fairs, and school-based and direct-to-home continuity programs; retail stores, schools, libraries and television networks; and the Company's Internet site, www.scholastic.com.

Research Foundation

Paper



Tom Snyder Productions
www.tomsnyder.com
800-342-0236

Illuminations – A Website for Learning Math

An Interactive NCTM Resource Providing Activities for K-12 Students

© [David R. Wetzel](#)

 [Jul 28, 2008](#)

This website provides online resources which are based on the National Council of Teachers of Mathematics (NCTM) standards for teaching and learning activities for all K-12 students. The activities on this website are designed for use by teachers, parents, students, and home schools. The website provides interactive math resources in the areas of standards, lessons, activities, and weblinks.

Interactive Math Categories

The activities are for elementary school, middle school, and high school on the website focus on four main categories:

Standards – standards based activities are used for supporting teaching and learning math. The standards are presented in grade bands: K-2, 3-5, 6-8, and 9-12. Math topics or concept areas for the 72 activities in this category cover topics in:

- Numbers and Operations – the development of number sense and basic arithmetic skills.
- Algebra – relationships among quantities, symbols, modeling of phenomena, and study of change.
- Geometry – the study of spatial sense.
- Measurement – assignment of numerical values to describe objects.
- Data Analysis and Probability – students learn to make connections in mathematics with other school subjects and their everyday life experiences.

Activities – these are interactive web-based activities which cover the same topic areas and are grade bands listed above. A brief list of examples include:

- Fire – simulates the spread of a forest fire using probability.
- Circle Grapher – allows students to create a customized circle graph with their own data or use provided data.
- Cubes – students determine the volume of a box by using cubes.

Lessons – provides teachers of math with 501 pre-developed lessons for grade bands and math topics listed above, which include:

- Learning Objectives – specific learning objectives of the lesson.
- Materials Needed – description of materials teacher supplies and supporting worksheets to download and print out.
- Instructional Plan – step-by-step process for teaching the lesson.
- Questions for Students – sample questions to ask students regarding the lesson's objectives.
- Assessment Options – sample assessments teachers can use or they can use their own.
- Extension Activities – activities to challenge the faster students in the class.
- Teacher Reflection – how well did the lesson work and what improvements need to be made, if any.
- Standards and Expectations – specific NCTM standards addressed in the lesson.

Weblinks – provides 724 interactive online math websites and lesson plans for teaching and learning math using the grade bands and topics listed above. A brief list of examples include:

- Rent A Car – this activity uses a real-world situation to illustrate linear functions.

- Number Cruncher – uses a function machine for developing an understanding of addition, subtraction, and multiplication operations.
- Flight Path -- students are tasked with determining the shortest routes for airplanes between cities.

Teaching and Learning Math Resources

This website's resources for teaching math are an excellent addition to any teacher's or home school parent's strategies and techniques. The website supports learning math by:

- Providing resources for students to prepare them to meet the 21st Century math skills they need to be fluent in to be successful in life.
- Providing web-based resources to support the teaching strategies and techniques used by teachers and home school parents.

The [NCTM Illuminations](#) website is focused on the national math standards, which every school district uses as a model for local standards and standardized tests use as a basis for question development. An additional website, An [Interactive K-12 Math Website](#) provides online resources to support interactive math activities to the Illuminations website.

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http://homeschooling.suite101.com/article.cfm/illuminations_a_website_for_learning_math#ixzz0HgWjShXn&D

Albuquerque Sign Language Academy
Science/SS Thematic Units and Standards Alignment

Time	Science/SS	Theme	NM Standards Alignment	AIMS Curriculum
July-Sept	Science	Animals	LIFE SCIENCE I, II	K-2 It Must be a Bird 1-3 Cycles of Knowing and Growing 2-4 Bats Incredible! 2-5 Critters 3-6 Field Detectives
July-Sept	Science	Stages of Matter	PHYSICAL SCIENCE I	5-7 Chemistry Matters
July-Sept	SS	United States (symbols, history, government)	HISTORY I-B, I-C, I-D CIVICS & GOVERNMENT III-A, III-B, III-C, III-D	
Oct-Dec	Science	Inventions, Scientists (school-wide science fair?)	SCIENCE & SOCIETY I	4-9 Brick Layers
Oct-Dec	Science	Energy/Forces	PHYSICAL SCIENCE II, III	K-2 Primarily Magnets K-3 Primarily Physics 3-5 Mostly Magnets 3-5 Popping with Power 4-9 Electrical Connections 4-9 Soap Films & Bubbles 5-9 Machine Shop
Oct-Dec	SS	Geography	GEOGRAPHY II-A, II-B, II-C, II-D, II-E, II-F	K-6 Exploring Environments 4-9 Find You Bearings 5-9 Through the eyes of the Explorers
Jan-March	Science	Earth and Space	EARTH & SPACE I	4-8 Out of this World
Jan-March	Science	Weather	EARTH & SPACE II	K-3 Primarily Weather K-3 Primarily Earth 2-6 Water Precious Water 3-5 Overhead and Underfoot 4-5 Weather Sense: Moisture 4-5 Weather Sense: Temperature, Air Pressure, and Wind 5-9 The Sky's the Limit
Jan-March	SS	New Mexico (symbols, history)	HISTORY I-A CIVICS & GOVERNMENT III-B	
April-June	Science	Plants	LIFE SCIENCE I, II	K-3 Primarily Plants 1-3 Cycles of Knowing and Growing 3-6 Budding Botanist

				3-6 Field Detectives 3-7 Crazy about Cotton 4-9 Magnificent Microworld Adventure
April-June	Science	Human Body	LIFE SCIENCE III	K-1 Sense-able Science 3-5 Jaw Breakers and Heart Thumpers 5-9 From Head to Toe
April-June	SS	Economics	ECONOMICS IV-A, IV-B, IV-C,	
All Year	Science	Scientific Investigations (observing, experimenting, predicting, validating)	SCIENTIFIC THINKING I, II, III	



NEW MEXICO
Public Education Department

New Mexico State Content Standards Alignment with



NEW MEXICO CONTENT STANDARDS

SOCIAL STUDIES

Kindergarten – 12th Grades

1. Social Studies (history, geography, economics, and government/civics) should provide learning opportunities that build upon significant concepts and skills over time.
2. An effective curriculum in social studies emphasizes content from the humanities and social sciences.
3. Effective social studies curriculum recognizes each person as an individual, encourages respect for the human and civil rights of all people, and also emphasizes students' shared heritage.
4. Social studies provides a setting and a frame of reference from which current events and public policy issues directly impact student interest and commitment to the study of social studies content.
5. Social studies should be supported by a variety of appropriate formative and summative assessments that measure knowledge and skills and determine whether students are progressing not only towards instructional objectives, but also towards the attainment of standards (local, state, and/or national).

LEARNING FOR LIFE LESSON PLANS THAT ASSIST IN TEACHING THE NEW MEXICO CONTENT STANDARDS

Elementary Programs:
(K-6th Grades)



World Cultures, Ethnic Heritage, Race/Religion/Culture, Respecting Differences, World Cultures, Gangs, Service, Community, Exhibiting Responsible Citizenship, What Is Freedom?, Places and Maps; **Super Safe CD Game**

BUILDERS PROGRAM:
(7th & 8th Grades)



What Is Good Citizenship?, Equality, Diversity, Civil Rights, Common Good: School-wide Cleanup and Beautification Project, Conflict Resolution, **Leadership Development Guidebook for Teenage Youth; Life Choices CD Rom Game, "A Time to Tell" DVD and Guidebook (in English and Spanish)**

NAVIGATORS PROGRAM: The Global Workplace; **Youth Protection DVD; Leadership Development Guidebook for Teenage Youth**
Book 2
A Road Map for the Future



NEW MEXICO CONTENT STANDARDS

HEALTH EDUCATION Kindergarten – 12th Grades

- Students will comprehend concepts related to health promotion and disease prevention.
- Students will demonstrate the ability to access valid health information and health-promoting products and services.
- Students will demonstrate the ability to practice health-enhancing behaviors and reduce health risks.
- Students will analyze the influence of culture, media, technology, and other factors on health.
- Students will demonstrate the ability to use interpersonal communication skills to enhance health.
- Students will demonstrate the ability to use goal-setting and decision-making skills to enhance health.
- Students will demonstrate the ability to advocate for personal, family, peer, and community health.

LEARNING FOR LIFE LESSON PLANS THAT ASSIST IN TEACHING THE NEW MEXICO CONTENT STANDARDS

Elementary Programs: Super Safe CD Rom Game; Choosing What's Right for Me, Emergency Preparedness, Gangs, Making Good Decisions, Prepared for Today, How I Learn From My Mistakes, Anger/Conflict Management, Building My Self-Confidence, Coping With Stress, Health, Self-Awareness, Setting Goals, Standing Up For Me, Sticking to What's Right, Fire Safety, Personal Habits for a Lifetime, Physical Fitness, Safety, Youth Protection



Builders Program:
(7th & 8th Grades)

Life Choices CD Rom Game; Behaviors that Contribute to Success in School; Positive and Negative Behavior: Maintain Positive Interpersonal Relationships; Relationships: Positive Reinforcement; Prejudice: Developing Healthy Human Relationships; Problem Solving: The Intricacies of Relating to Others; Conflict Resolution: Understanding Human Relationships, **Super Safe CD Rom Game**



Navigators Program:
(9th-12th Grades)
Books 1 & 2

Youth Protection DVD; Maintaining, Balance and Limiting Stress, The Importance of Good Health, Decision Making, Setting Goals, **Life Choices CD Game**



NEW MEXICO CONTENT STANDARDS

LANGUAGE ARTS

Kindergarten – 12th Grades

- 1. Reading and Listening for Comprehension**
Students will apply strategies and skills to comprehend information that is read, heard, and viewed.
- 2. Writing and Speaking for Expression**
Students will communicate effectively through speaking and writing.
- 3. Literature and Media**
Students will use literature and media to develop an understanding of people, societies, and the self.

LEARNING FOR LIFE LESSON PLANS THAT ASSIST IN TEACHING THE NEW MEXICO CONTENT STANDARDS

Elementary Program:
(K-6th Grades)

Basic Art; Classic Literature; Communications; Developing Good Listening Skills; Setting Goals



Builders Program:
(7th & 8th Grades)

Decision Making, Anger Management, Relationships: Cooperation in Action, Prejudice: Healthy Human Relationships Problem Solving Problem Solving: Intricacies of Relating to Others, Communication: Empathetic and Persuasive Communication, Verbal and Nonverbal Communication



NAVIGATORS PROGRAM:
(9th & 12th Grades)

Effective Communication, Writing Resumes

**Book 2:
A Road Map
for the Future**



NEW MEXICO CONTENT STANDARDS

CAREER READINESS Kindergarten – 12th Grades

- Students will identify their career interests and aptitudes to develop an educational plan which supports personal career goals.
- Students will utilize and manage resources effectively to produce quality services and products.
- Students will demonstrate the technological knowledge and skills required for future careers.
- Students will develop and demonstrate responsible and ethical workplace behaviors.
- Students will develop effective leadership, interpersonal, and team skills.

LEARNING FOR LIFE LESSON PLANS THAT ASSIST IN TEACHING THE NEW MEXICO CONTENT STANDARDS

Elementary Programs: (K-6th Grades)



Being a Good Worker; Being Responsible; Decision Making; Making Good Decisions; How I Learn from My Mistakes; Getting Along with Others; Coping With Stress; Developing Good Listening Skills; Setting Goals

Builders Program: (7th & 8th Grades)



Time Management, Career Exploration, Aptitude and Jobs, Developing a Resume, Developing a Personal Financial Plan, Problem Solving: Intricacies of Relating to Others, Family Dynamics: Improving Family Relationships, Conflict Resolution: Becoming A Successful Mediator, Communication: Empathetic and Persuasive Communication, Verbal and Nonverbal Communication

Navigators Program: (9th-12th Grades)

Book 2: A Road Map for the Future



Goal Setting; Decision Making, After High School—What's Next?, Interests and Aptitudes, Skills and Job Traits, Looking at Building Careers, Occupation Selection, on the Internet, Getting Ready—Education and Training Opportunities, Working for Yourself, Work and the Family, Writing Resumes, Job Applications, Job Interviews, Where to Find a Job, Ethics in the Workplace, Understanding People and Problems at the

NEW MEXICO CONTENT STANDARDS

CAREER READINESS (continued)

Kindergarten – 12th Grades

**LEARNING FOR LIFE LESSON PLANS THAT ASSIST IN TEACHING
THE NEW MEXICO CONTENT STANDARDS**

**Navigators Program:
continued
(9th-12th Grades)
Book 2:
A Road Map for
Future**

Workplace, Time Management, Maintaining
Balance and Limiting Stress, Money
Management



NEW MEXICO CONTENT STANDARDS

MATHEMATICS

Kindergarten – 12th Grades

Unifying Concepts and Processes

1. Students will understand and use mathematics in problem solving.
2. Students will understand and use mathematics in communication.
3. Students will understand and use mathematics in reasoning.
4. Students will understand and use mathematical connections.

Number and Operations Concepts

5. Students will understand and use numbers and number relationships.
6. Students will understand and use number systems and number theory.
7. Students will understand and use computation and estimation.

Geometry and Measurement Concepts

8. Students will have a foundation in geometric concepts.
9. Students will understand and use measurements.

Statistics and Probability Concepts

10. Students will use and understand statistics.
11. Students will use and understand probability.

Functions and Algebra Concepts

12. Students will understand and use patterns and functions.
13. Students will understand and apply algebraic conceptions.

LEARNING FOR LIFE LESSON PLANS THAT ASSIST IN TEACHING THE NEW MEXICO CONTENT STANDARDS

Elementary Programs: Math, Money Management
(K- 6th Grades)



Builders Program: Math, Developing a Personal Financial Plan
(7th & 8th Grades)



Navigators Program: Math, Money Management
(9th -12th Grades)

**Book 2:
A Road Map for
the Future**



NEW MEXICO CONTENT STANDARDS

LEARNING FOR LIFE LESSON PLANS THAT ASSIST IN TEACHING THE NEW MEXICO CONTENT STANDARDS

SCIENCE

Kindergarten – 12th Grades

- Students will understand science concepts of order and organization.
- Students will use evidence, models, and explanations to explore the physical world.
- Students will use form and function to organize and understand the physical world.
- Students will understand the physical world through the concepts of change, equilibrium, and measurement.
- Students will acquire the ability to do scientific inquiry.
- Students will know and understand the properties of matter.
- Students will know and understand the properties of fields, forces, and motion.
- Students will know and understand the concepts of energy and the transformation of energy.
- Students will know and understand the characteristics that are the basis for classifying organisms.
- Students will know and understand the synergy among organisms and the environments of organisms.
- Students will know and understand properties of earth science.
- Students will know and understand basic concepts of cosmology.
- Students will know and understand the differences between the interactions of science and technology.
- Students will know and understand the differences between the science and technology in society.
- Students will know and understand the relationship between natural hazards and environmental risks for organisms.

Elementary Programs: Weather, Clean Air and Water
(K- 6th Grades)



Navigators Program: Looking at Building a Career
(9th-12th Grades)



What is Learning for Life?

Purpose and Rationale

The Learning for Life Corporation offers seven programs designed to support schools and community-based organizations in their efforts to prepare youth to successfully handle the complexities of contemporary society and to enhance their self-confidence, motivation, and self-esteem. The seven programs focus on character education and career education. Learning for Life programs help youth develop social and life skills, assist in character development, and help youth formulate positive personal values. It prepares youth to make ethical decisions that will help them achieve their full potential. There are two program methods. We have six school based programs and one worksite based program.

Adults involved in Learning for Life are selected by the organization in which they work (i.e., schools, local businesses, community organizations, etc.). Race, religion, gender, sexual orientation, ethnic background, economic status and citizenship are not criteria for participation in Learning for Life.

At a time when drugs and gangs are ravaging many of our schools and communities, Learning for Life programs can be a catalyst to help stop this trend. The program uses age-appropriate, grade-specific lesson plans to give youth skills and information that will help them cope with the complexities of today's society.

Learning for Life makes academic learning fun and relevant to real-life situations in age appropriate and grade specific material. As a result, the positive character traits and skills learned by participation in Learning for Life not only make students more confident and capable, but also give them an invaluable understanding of how things work in the real world. School and community demands for character education and career education programs have greatly influenced the dramatic growth of Learning for Life. Learning for Life has been adopted by more than 17,000 schools and organizations nationwide, serving over 1.5 million youth.

Programs in Learning for Life

Learning for Life has seven program components:

School Based Programs:

1. Seekers Program (Kindergarten-2nd Grades)

The logo for the Seekers Program is a circular emblem with a globe in the center, surrounded by the words "LEARNING FOR LIFE" at the top and "SEEKERS" at the bottom.

The *Seekers' Program* offers an integrated approach to character development designed for kindergarten through 2nd grade youth. The program blends character development, life skills, academic learning, and outdoor experiences into a comprehensive program geared to help students successfully handle the complexities of contemporary society, reinforce social skills, critical and creative thinking, ethical decision making, conflict resolution, and build their self-esteem. The core character traits promoted in the *Seekers Program* are: 1) Respect, 2) Responsibility, 3) Honesty/Trust, 4) Caring/ Fairness, 5) Perseverance, 6) Self-Discipline, 7) Courage, 8) Citizenship. In addition a series of Life Skills is offered. Curricula books for each grade level consist of 61 lesson plans, all age-appropriate and grade specific. Lessons focus on themes such as "Accepting Consequences", "Gangs", "Meeting Deadlines", "Respecting Differences", and "Sticking to What's Right". Through reflection activities in each lesson, students engage in analyzing their behaviors. Lessons are easily integrated into core curricula subjects. Each lesson plan also includes a "Home Activity Worksheet" which teachers send to the student's parent/guardian as an extension activity to reinforce concepts taught in the lesson plan. The Seekers program features a teacher's edition for each grade with the 61 lesson plans, activity sheets and home/family activity sheets. A student workbook, that has all the activity and home/family activities printed on perforated paper is available for each grade Spanish translations are available for both the teacher's edition and student workbook in the Seekers program. The program is supplemented by a recognition component. Other value-added features of the *Seekers Program* includes: outdoor experiences, community speakers, field trips and teacher training.

2. Discoverers Program (3rd - 4th Grades)

The logo for the Discoverers Program is a circular emblem with a stylized green and yellow sun or flower shape in the center, surrounded by the words "LEARNING FOR LIFE" at the top and "DISCOVERERS" at the bottom.

The *Discoverers Program* combines character development, life skills, academic learning and outdoor experiences specifically designed for 3rd and 4th grade youth. It mirrors the *Seekers Program* by providing an integrated approach to character development. The 61 lesson plans for each grade focus on eight character traits: 1) Respect, 2) Responsibility, 3) Honesty/Trust, 4) Caring/Fairness, 5) Perseverance, 6) Self-Discipline, 7) Courage, 8) Citizenship. Additionally a set of Life skills lessons are included. Each 3rd and 4th grade book has 61 lesson plans focusing on many of the same themes as the *Seekers Program*; however, lesson plans progress in difficulty and cognitive level. Lessons focus on

critical thinking, conflict resolution, perseverance, courage, interpersonal skills and ethical decision making. The Discoverers program has a teacher's edition and student workbook for each grade. Teachers can use the student recognition program. To further enhance the *Discoverers Program*, each book contains an interactive CD-ROM game for students titled "Super Safe". The game presents a series of six age-appropriate scenarios where students have to make choices about safety issues. The six scenarios are: Internet Safety, Nonviolent Strategies, Verbal Abuse, Bullying, Youth Protection, and Unsupervised Children. The game also provides information that can be sent home to parents/guardians. The information details issues that are being addressed in the "Super Safe" CD-ROM game and shows way parents/guardians can help their child's development. Other value-added components of the *Discoverers Program* includes: community speakers, mentors, outdoor experiences, field trips and teacher training.

3. Challengers Program (5th – 6th Grades)



Specifically designed for the cognitive and developmental levels of 5th and 6th grade students, the *Challengers Program* continues Learning for Life's character education emphasis by integrating components of both the *Seekers* and *Discoverers Program*. The *Challengers Program* focuses on the same eight character traits as *Seekers* and *Discoverers*: 1) Respect, 2) Responsibility, 3) Honesty/Trust, 4) Caring/Fairness, 5) Perseverance, 6) Self-Discipline, 7) Courage, 8) Citizenship. Lesson plans on Life Skills are also part of the *Challengers* program. The 61 lesson plans in each of the *Challengers* books focus on topics such as "Being Responsible", "Making Good Decisions", "Code of Ethics", "Empathy", etc. The lesson plans are geared to a higher level of cognitive and developmental learning than the *Seekers* and *Discoverers* lessons. A Home/Family activity is part of every lesson. Each grade has its own teacher's edition as well as student workbook. A recognition feature helps teachers to reward student participation. The *Challengers Program*, like the *Discoverers Program*, also comes with a "Super Safe" CD-ROM game for students. However, the game for *Challengers* is completely different from the *Discoverers* game, and offers more difficult scenarios to enhance students' critical thinking skills. Other value-added features in the *Challengers Program* are: community speakers, mentors, outdoor experiences, field trips and teacher training.

4. Builders Program (7th – 8th Grades)



The *Builders Program* is a comprehensive, four-tier blend of elements focusing on Character Education, Career Education, Building Relationships and Citizenship for students in the 7th and 8th grades. Lesson plans in both the 7th and 8th grade teacher's editions are designed to reinforce social, academic and career education skills in various areas, such as critical and creative thinking, conflict resolution, decision making, interpersonal relationships, practical life skills, self-esteem, writing and language arts, citizenship and personal fitness. There are 44 lesson plans in each of the *Builders* Books, ranging in topics from "Peer Pressure: Who Can I Trust" to "Self Assessment of Skills and Abilities" to "Problem Solving: The Intricacies of Relating to Others". The lessons are action-oriented and use teaching techniques such as role-playing, small group discussions, and reflective and moral dilemmas exercise. The *Builders Program* features a teacher's edition and student workbook for each grade. In addition, many of the same value-added features included with the *Seekers*, *Discoverers* and *Challengers Programs* are also part of the *Builders Program*, including community speakers, mentors, outdoor experiences, field trips and teacher training. Life Choices: A Character Game CD-ROM is included in the 7th grade teacher's book. It offers exciting activities that help teach life and career skills. The 8th Grade teacher's edition features a DVD, "A Time To Tell" that addresses youth protection issues. Builders can be recognized with the Builders Award of Excellence/.

Community Role Models. The Learning for Life seventh- and eighth-grade program is designed to provide community role models to motivate and interact with youth. Role models meet with a specific class (e.g., English, Social Studies, or Math) and discuss the relationship of that subject to a work situation. These role models, with backgrounds similar to those of the youth, share their personal paths to success, including the pitfalls and the high points.

5. Navigators Program (9th – 12th Grades)



The *Navigators Program* is designed to extend the learning experiences taught through Learning for Life's *Builders Program* for 7th and 8th grade students. Just as the word "navigators" implies, the program serves to guide youngsters in making a successful transition from high school into real-world endeavors, including post-secondary education, acquiring a job, being a productive citizen, and establishing and maintaining positive relationships with others. There are two (2) books in the *Navigators Program*: Book One – *A Personal Compass for Daily Living* features lesson plans in the following areas: Citizenship, Ethical Dilemmas, Habits of Character Education and Service to Others. Book One also includes a student DVD on youth protection for high school aged youth called, "Personal Safety Awareness". Book Two – *A Road Map for the Future* features lesson plans in the following areas: Career Education, College Life and Life Skills. Book Two includes a CD-ROM titled *Life Choices: A Career Game*.

Although aspects of these two books are introduced in Learning for Life's elementary books and taught in a more advanced way through the 7th and 8th grade books, the *Navigators Program* takes students to a much deeper level of

learning and a much broader set of learning experiences. When students complete the *Navigators Program*, they will be better prepared to enter the workforce or enter post-secondary education. They will have deeper understandings and more strategies to support their efforts to achieve success in their chosen venture. Recognitions are available for students in character and career achievement.

Career Seminars can be a unique feature of the Navigators program. Career Seminars offer students first hand information on future vocational options. Seminars can be organized as a career fair or speakers in a classroom.



6. Champions Program (for Special Needs Youth)

The *Champions program* assists students with mental challenges to develop the life skills they need to achieve self-sufficiency. The teacher's edition features 57 lessons also focus on and enhance student self-development. Areas covered include:

- *Personal/Social Skills*. Students learn how emotions affect their own behavior and that of others
- *Life Skills*. Students are taught basic skills for independent living, such as personal hygiene, meal preparation, and job-readiness training.

A recognition program helps to reinforce the skills in the Champions Program.

Because of the various forms and levels of special needs that schools may encounter, any of the Learning for Life curriculum books may be used in the *Champions Program*. In this way, Learning for Life can be tailored to fit the needs of each individual class and student and is certain to be age-appropriate.

Champions Transition Program

The *Champions Transition Program* is geared toward high school-aged special needs youth. This program features lesson plans focusing on managing finances, vocational opportunities, mental skills for good work habits, decision making skills, planning and preparation and seeking a job. A certificate can be used for those participating in the program.

Work Site Based Program

Exploring Program

Exploring is a worksite-based career education program for young men and women who are 14 (and have completed the eighth grade) or 15 through 20 years old.



Exploring's purpose is to provide experiences that help young people mature and prepare them to become responsible and caring adults. Explorers are ready to investigate the meaning of inter-dependence in their personal relationships and communities.

Exploring is based on a unique and dynamic relationship between youth and the business organizations in their communities. Local community organizations initiate a career-oriented Explorer post by matching their employees and program resources to the interests of young people in the community. The program of Exploring is based on five areas of emphasis: Career Opportunities, Life Skills, Leadership Experiences, Character Education and Citizenship. The result is a program of activities that helps youth pursue their career interests, grow and develop.

Exploring posts can be organized in a number of career fields. Some include: law enforcement, health, law, engineering, aviation and business.

Value-Added Features of Learning for Life

Leadership Development Guidebook for Teenage Youth. These leadership workshops are designed for senior high students. The goal is help them develop life skills, personal management skills and group leadership skills. The Guidebook includes 16 workshops as well as information on planning options. The workshops can be offered as one-day sessions, an overnight meeting, or as a series of workshops.

Drug Prevention Education Program. This is a series of books for kindergarten through sixth-grade youth. The books include age-appropriate and grade-specific lesson plans geared to educate students about the dangers of drug abuse. A full-color poster is included in most books.

Kid Serve Community Service Learning. This program is designed to raise awareness about social problems that kids can address in their community through planned community service projects.

Training

Learning for Life offers training seminar for all seven programs. They are designed to prepare volunteers and teachers to use Learning for Life materials. The training can also be conducted to orient school administrators, prospective financial supporters, and other interested parties on the value of the programs.

Recognitions

Learning for Life offers a recognition plan needs students to encourage positive behavior, to foster a sense of belonging in the group, to assist in building self-esteem, and to reward a positive work ethic. In Exploring, numerous scholarships are available from a variety of national organizations.

For *Seekers*, *Discoverers* and *Challengers* the recognition plan is an honor wall chart with spaces for student names. There are 15 brightly colored peel-off stickers that relate to the lesson plan themes that are in each book. When the class completes a designated set of themes, the teacher places the appropriate sticker on the honor chart by the name of each student who has participated. Individual Honor Charts can also be sued. Challengers also have the option of using iron-on emblems for the students to wear on their clothing. In addition the Awards of Excellence can be earned in each grade.

The *Champions* (special needs youth) recognition program has its own honor wall chart and incentive stickers. Also a Champions Award of Excellence is available.

Seventh and Eighth grade participants can earn the Builder Award of Excellence

The Navigators program offers Senior-high students the opportunity to earn the Navigators Career and Character Award of Excellence.

Explorers and Navigators can receive Career Achievement Awards for their accomplishments in different career fields.

Learning for Life also offers recognitions for adults who participate in the program. There is also a Character Education Quality Award for classrooms.

Mission Statement

It is the mission of Learning for Life to enable young people to become responsible individuals by teaching positive character traits, career development, leadership, and life skills so they can make ethical choices and achieve their full potential.

Vision Statement

Learning for Life strives to be the foremost co-educational youth program for character and career development.

For the latest on Learning for Life see our web site: www.learningforlife.org

2nd Grade New Mexico Standards and Benchmarks Aligned to Investigations Math

Strand 1: NUMBER AND OPERATIONS	ASL Math Curriculum
Standard: Students will understand numerical concepts and mathematical operations	
K-4 Benchmark 1: Understand numbers, ways of representing numbers, relationships among numbers, and number systems.	
<p>1. Understand the relationship between numbers, quantities, and place value in whole numbers up to 1,000 and develop flexible ways of thinking about numbers: Use multiple models to explore place value and the base- ten- number system Represent whole numbers and use them in flexible ways including decomposing, and recombining numbers and see their relationships (e.g., 3 is one less than 4, one more than 2, two less than 5) c. Identify whether a set of objects has an odd or even number of element d. Compare and order numbers using a variety of terms (e.g., tens, less than, odd numbers) e. Apply strategies for computation utilizing an understanding of place value (e.g., $48 + 25$ would be $40 + 20$ is 60, $8 + 5$ is 13, $60 + 13$ is 73)</p> <p>2. Apply counting skills and number sense through meaningful activities: a. Count and recognize “how many” in sets of objects up to 1,000 Count forward and backward from given numbers to 1,000 Connect number words and numerals to the quantities they represent using physical models and other representations (e.g., 23 can be twenty-three 1s, one 10 and thirteen 1s, or two 10s and three 1s) Model how many parts make a whole using equal fractional parts (e.g., $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, and $\frac{1}{6}$ as equal parts of a whole)</p>	<p>Units 3, 4 & 6 Units 1, 3 & 8</p> <p>Units 1, 3, 4, 5, 6 & 8 Units 3 & 8 Units 3, 4 & 6 Units 1, 4 & 6</p> <p>Unit 1 Unit 6 Unit 3</p> <p>Unit 7</p>
K-4 Benchmark 2: Understands the meaning of operations and how they relate to one another.	
<p>1. Find the sum of two whole numbers up to three digits long (e.g., $235 + 476 = 564$; $\overset{\uparrow}{1} - 273 = \overset{\uparrow}{1}$).</p> <p>2. Find the difference of two whole numbers up to three digits long.</p> <p>3. Understand and use the inverse relationships between addition and subtraction to solve problems and check solutions ($28 + 31 = 59$; therefore, $59 - 31 = 28$).</p> <p>4. Identify and describe situations that require multiplication and division and develop strategies to solve problems for repeated joining of groups and partitioning into equal subgroups or shares (e.g., repeated addition and subtraction, counting by multiples, equal sharing).</p>	<p>Units 1, 2, 3, 6 & 8 Units 1, 3 & 8 Units 1, 3 & 6</p> <p>Units 1, 2, 3, 5 & 6</p>
K-4 Benchmark 3: Compute fluently and make reasonable estimates.	
<p>Use and explain strategies for addition and subtraction of multi-digit whole numbers.</p> <p>2. Model and solve problems representing adding and subtracting amounts of money using dollars and coins.</p> <p>3. Use addition combinations (addends through 10) and related subtraction combinations, and develop strategies for computing based on number sense (e.g., $25 + 37$: Take 3 from the 25 and use it to turn 37 into 40; then add 40 and 22</p>	<p>Unit 1, 3, 6 & 8 Unit 1 & 3 Units 1, 2, 3, 4, 6 & 8</p>

to get 62).	
4. Select and use a variety of appropriate strategies methods to compute (e.g., objects, mental computation, estimation, paper and pencil).	Units 1, 2, 3, 4, 6 & 8
5. Skip-count by 2, 5, and 10 to develop multiplicative reasoning and notational representations (e.g., 5, 10, 15, 20; $4 \times 5 = 20$; four groups of 5 equals 20).	Unit 6
Strand 2: ALGEBRA	
Standard: Students will understand algebraic concepts and applications.	
K-4 Benchmark 1: Understand patterns, relations, and functions.	
Recognize, reproduce, describe, extend, and create repeating and growing patterns, and translate from one representation to another.	Unit 5
Skip-count using calculators or a hundreds chart to identify, describe, predict, and make generalizations about number patterns to differentiate rote counting versus the meaning of the numbers.	Unit 6
Construct and solve open sentences that have variables (e.g., $10 = 7 + \hat{1}$).	Units 1, 3 & 5
4. Relate everyday problem situations to number sentences involving addition and subtraction (e.g., 25 students are going to the store. Five students can ride in a car. How many cars will be needed?).	Units 1,3 & 6
K-4 Benchmark 2: Represent and analyze mathematical situations and structures using algebraic symbols.	
Use mathematical language to describe a variety of representations and mathematical ideas and situations.	All Units
Explain the concept of equal (e.g., quantities on both sides of equation are the same) by using objects or giving examples.	Units 3, 6, 7 & 9
Construct and solve open number sentences that have variables representing numbers up to 20 (e.g., $20 = 6 + \hat{1}$).	Unit 1, 3, & 6
Use objects, words, and symbols to explain the concept of addition.	Units 1, 2, 3, 4, 6 & 8
K-4 Benchmark 3: Use mathematical models to represent and understand quantitative relationships.	
1. Model situations of addition and subtraction of whole numbers using objects, pictures, and symbols.	Units 1, 2, 3, 4, 6 & 8
2. Solve problems related to trading (e.g., coin trading, measurement trading).	Unit 3 & 9
3. Solve addition and subtraction problems by using data from simple charts, picture graphs, and number sentences.	Units 1, 3, 4, 5, 6 & 8
K-4 Benchmark 4: Analyze changes in various contexts.	
1. Describe quantitative change (e.g., a student growing two inches in one year, water heating up to boil).	Unit 5
Strand 3: GEOMETRY	
Standard: Students will understand geometric concepts and applications.	
K-4 Benchmark 1: Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships	

1. Identify and describe the attributes of common figures in a plane and common objects in space: Sort, describe, and analyze plane and solid geometric shapes (e.g., circle, triangle, square, rectangle, sphere, pyramid, cube, rectangular prism) based on various attributes (e.g., faces, edges, and corners). Put shapes together and take them apart to form other shapes (e.g., two congruent right triangles can be arranged to form a rectangle).	Unit 2
2. Explore lines of symmetry in two-dimensional shapes.	Unit 2
K-4 Benchmark 2: Specify locations and describe spatial relationships using coordinate geometry and other representational systems	
Find and name locations with simple relationships like “near to” and apply ideas about relative position.	Unit 2
Describe, name, and interpret direction in navigating space and apply ideas about direction and distance.	Unit 2
Use maps to locate points and navigate through mazes or maps.	Unit 2
Visualize, justify, and create paths using landmarks, space, shapes, and descriptive language.	Unit 2
5. Make and draw rectangular arrays of squares.	Unit 2
K-4 Benchmark 3: Apply transformations and use symmetry to analyze mathematical situations.	
Use systematic thinking to solve geometric puzzles (e.g., pentominoes).	Unit 2
2. Use materials to investigate rotational and line symmetry and create shapes that have symmetry.	Unit 2
K-4 Benchmark 4: Use visualization, spatial reasoning, and geometric modeling to solve problems.	
Demonstrate relationships of different attributes with concrete materials (e.g., change one characteristic of a shape while preserving others such as increasing number of sides while perimeter stays the same).	Units 2 & 9
Select and use visualization skills to create mental images of geometric shapes.	Unit 2
Describe geometric shapes and structures from different perspectives.	Unit 2
4. Relate geometric ideas to numbers (e.g., seeing rows in array as a model of repeated addition).	Unit 2
5. Recognize geometric shapes and structures in the environment and specify their location.	Unit 2
Strand 4: MEASUREMENT	
Standard: Students will understand measurement systems and applications.	
K-4 Benchmark 1: Understand measurable attributes of objects and the units, systems, and process of measurement.	
Identify a unit of measure (e.g., nearest inch) and repeat that unit comparing it to the item being measured.	Unit 9
Use direct comparison to compare and order objects according to length, mass, and area.	Unit 9
Measure and compare common objects using standard and non-standard units of length.	Unit 9
Find and represent the value of a collection of coins and dollars up to \$5.00, using appropriate notation.	Unit 3
Identify and use time intervals (e.g., hours, days, weeks, months).	Unit 9
Select and use appropriate measurement tools (e.g., ruler, yardstick, meter stick)	Unit 9

Tell time to the nearest quarter hour.	Unit 9
K-4 Benchmark 2: Apply appropriate techniques, tools, and formulas to determine measurements.	
Develop common referents to make comparisons and estimates of length, volume, weight, area, and time. Develop an understanding that different measuring tools will yield different numerical measurements of the same object (e.g., ruler, yardstick, meter stick, paper clip). Estimate measurements and develop precision in measuring objects.	Unit 9 Unit 9 Unit 9
Strand 5: DATA ANALYSIS AND PROBABILITY	
Standard: Students will understand how to formulate questions, analyze data, and determine probabilities.	
K-4 Benchmark 1: Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them.	
Collect numerical data systematically. Represent data by using concrete objects, pictures, tables, numbers, tallies, and graphs (e.g., pictographs). Pose questions about students' selves and their surroundings and gather data by interviewing, surveying, and making observations to answer the questions posed. Identify patterns and explain the relationships of the units in the pattern (e.g., the number of ears on one dog, two dogs, etc., or linear numerical patterns).	Unit 4 Unit 4 Unit 4 Unit 5
K-4 Benchmark 2: Select and use appropriate statistical methods to analyze data.	
1. Describe and interpret data by drawing conclusions and making conjectures based on the data collected. 2. Display data in a variety of formats.	Unit 4 Unit 4
K-4 Benchmark 3: Develop and evaluate inferences and predictions that are based on data.	
Discuss events related to students' experiences as "likely" or "unlikely" and "possible" or "certain". Recognize appropriate conclusions generated from the data collected. Recognize inappropriate descriptions of the data set.	Probability in Grade 4 Unit 4 Unit 4
K-4 Benchmark 4: Understand and apply basic concepts of probability.	
Investigate concepts of chance (e.g., outcomes of a simple experiment). Investigate whether outcomes of a simple event are equally likely to occur.	(note: probability concepts not specifically referenced in Benchmarks until Grade 4 Unit 2)

2nd Grade Math: Curriculum Map and Pacing Guide 2008/2009

Quarter 1

August

Performance Objective	Student Outcomes	Core Resource	Assessment
[M02-S1C2-14] Use grade-level appropriate mathematical terminology.	I can use second grade math vocabulary correctly.	These standards will be addressed throughout all four quarters	
[M02-S3C2-01] Describe the rule used in a simple grade-level appropriate function (e.g., T-chart, input/output model, and frames and arrows).	I can describe the rule in a function.		
[M02-S1C1-02] Identify a whole number represented by a model with a word name and symbol 0 through 999.	I can identify a number when shown as a word name or model for the numbers 1-99.	Lesson 1.1, 1.2 (Supplementary lesson needed)	
[M02-S1C1-03] Count aloud, forward or backward, in consecutive order (0 through 999).	I can count forward or backward in order up to 99.		
[M02-S1C1-04] Identify whole numbers through 999 in or out of order.	I can name numbers in or out of order up to 99.		
[M02-S1C1-05] Write whole numbers through 999 in or out of order.	I can write numbers up to 99 in or out of order.		
[M02-S1C1-11] Compare two whole numbers through 999.	I can compare two numbers up to 99.		
[M02-S1C1-11] Compare two whole numbers through 999.	I can compare two numbers up to 999.	Lesson 1.3 pp. 13A-16	
[M02-S1C2-13] Apply the symbols: +, -, x, ÷, =, !, <, >, %.	I can use the symbols: +, -, x, =, <, >, %.		
[M02-S1C2-12] Apply grade-level appropriate properties to assist in computation.	I can use properties of numbers to help me solve a problem.	Lesson 2.1 pp. 27A-28	
[M02-S1C2-06] Add 3 one- or two-digit addends.	I can add 3 one- or two-digit numbers.	Lesson 2.6 pp. 39A-40	
[M02-S1C2-11] Demonstrate the associative property of addition [e.g., $(3 + 5) + 4 = 3 + (5 + 4)$].	I can show how to use the associative property of addition.		
[M02-S1C2-12] Apply grade-level appropriate properties to assist in computation.	I can use properties of numbers to solve a problem.		
[M02-S1C2-12] Apply grade-level appropriate properties to assist in computation.	I can use properties of numbers to solve a problem.	Lesson 3.1 pp. 51A-52	
[M02-S1C2-03] State addition and subtraction facts.	I can say addition and subtraction facts.	Lesson 3.6 pp. 63A-64	
[M02-S3C3-02] Find the missing element (addend, subtrahend, minuend, sum, and difference) in addition and subtraction number sentences for sums through 18 and minuends through 9 (e.g., $13 - \underline{\quad} = 8$).	I can find the missing piece of an addition problem that has a sum of up to 18 or a subtraction problem with a minuend up to 9.	Lesson 3.7 pp. 65A-66	

2nd Grade Math: Curriculum Map and Pacing Guide 2008/2009

Quarter 1

August

Performance Objective	Student Outcomes	Core Resource	Assessment
[M02-S1C2-13] Apply the symbols: +, -, x, ÷, =, <, >, %.	I can use the symbols: +, -, x, ÷, =, <, >, %.	Lesson 3.8 pp. 67A-71	
September			
Performance Objective	Student Outcomes	Core Resource	Assessment
[M02-S2C1-01] Formulate questions to collect data in contextual situations.	I can create my own questions to collect data.	Lesson 4.1 pp. 77A-80	
[M02-S2C1-02] Make a simple pictograph or tally chart with appropriate labels from organized data.	I can make and label a pictograph or tally chart with given data.		
[M02-S2C1-03] Interpret pictographs using terms such as most, least, equal, more than, less than, and greatest.	I can show how to read a pictograph or tally chart by using the words; most, least, equal, more than, less than, and greatest.		
[M02-S2C1-04] Answer questions about a pictograph using terms such as most, least, equal, more than, less than, and greatest.	I can answer questions about a pictograph using the words, most, least, equal, more than, less than, and greatest.		
[M02-S2C1-05] Formulate questions based on graphs, charts, and tables.	I can create my own questions about graphs, charts, and tables.		
[M02-S2C1-06] Solve problems using graphs, charts, and tables.	I can solve problems that use graphs, charts and tables.	Lesson 4.3 pp. 83A-86	
[M02-S2C1-06] Solve problems using graphs, charts, and tables.	I can solve problems using graphs, charts, and tables.	Lesson 4.8 (Supplemental lesson needed)	
[M02-S5C2-01] Identify the concepts some, every, and many within the context of logical reasoning.	I can identify the ideas of some, every, and many when I solve a problem.		
[M02-S5C2-02] Identify the concepts all and none within the context of logical reasoning.	I can identify the ideas of all or none when I solve a problem.		
[M02-S2C2-01] Name the possible outcomes for a probability experiment.	I can tell how many possible outcomes there are for a probability experiment.	Lesson 4.6 (Supplementary lesson needed)	
[M02-S2C2-02] Predict the most likely or least likely outcome in probability experiments (e.g., Predict the chance of spinning one of the 2 colors on a 2-colored spinner.).	I can predict the most likely or least likely outcome in a probability experiment.		
[M02-S2C2-03] Predict the outcome of a grade-level appropriate probability experiment.	I can predict the outcome of a probability experiment.	Lesson 4.7 (Supplementary lesson needed)	

2nd Grade Math: Curriculum Map and Pacing Guide 2008/2009

Quarter 1

September

Performance Objective	Student Outcomes	Core Resource	Assessment
[M02-S2C2-04] Record the data from performing a grade-level appropriate probability experiment.	I can record data from a probability experiment that I participate in.	Lesson 4.7 (Supplementary lesson needed)	
[M02-S2C2-05] Compare the outcome of an experiment to predictions made prior to performing the experiment.	I can compare the outcome of an probability experiment to my prediction.		
[M02-S2C2-06] Compare the results of two repetitions of the same grade-level appropriate probability experiment.	I can compare the results of probability experiment that is repeated twice.		
[M02-S1C1-01] Make a model to represent a given whole number 0 through 999.	I can make a model for a number up to 99.	Lesson 5.1 pp. 123A-124 (Supplement and begin introduction of 3-digit numbers to prepare for TerraNova)	
[M02-S1C1-02] Identify a whole number represented by a model with a word name and symbol 0 through 999.	I can identify the word name and symbol for a number up to 99 shown in a model.		
[M02-S1C1-05] Write whole numbers through 999 in or out of order.	I can write numbers up to 99 in or out of order.		
[M02-S1C1-01] Make a model to represent a given whole number 0 through 999.	I can make a model for a number up to 99.	Lesson 5.2 pp. 125A-126	
[M02-S1C1-02] Identify a whole number represented by a model with a word name and symbol 0 through 999.	I can identify the word name and symbol for a number up to 99 in a model.		
[M02-S1C1-04] Identify whole numbers through 999 in or out of order.	I can name whole numbers up to 99 when seen in or out of order.		
[M02-S1C1-01] Make a model to represent a given whole number 0 through 999.	I can make a model for a number up to 99.	Lesson 5.4 pp. 131A-132	
[M02-S1C1-11] Compare two whole numbers through 999.	I can compare two numbers up to 99.	Lesson 5.5 pp. 133A-134	
[M02-S1C2-13] Apply the symbols: +, -, x, ÷, =, !, <, >, %.	I can use the symbols +, -, x, ÷, <, >, %.		
[M02-S1C1-10] Identify odd and even (including 0) whole numbers through 999.	I can tell if a number is odd or even for numbers up to 999, including 0.	Lesson 6.1 pp. 143A-144	
[M02-S1C2-09] Count by multiples of three.	I can count by threes.	Lesson 6.2 pp. 145A-146	
[M02-S1C1-12] Use ordinal numbers.	I can use ordinal numbers, such as first, second, third...	Lesson 6.4 pp. 149a-152	
[M02-S3C1-02] Extend a grade-level appropriate repetitive pattern (e.g., 12, 22, 32, __, __, __).	I can extend a repeating pattern.	Lesson 6.5, 6.6	

2nd Grade Math: Curriculum Map and Pacing Guide 2008/2009

Quarter 2

October

Performance Objective	Student Outcomes	Core Resource	Assessment
[M02-S4C1-01] Compare attributes of 2-dimensional shapes (square, rectangle, triangle, and circle).	I can compare shapes.	Lesson 7.1, 7.2	
[M02-S4C1-02] Recognize congruent shapes.	I can recognize congruent shapes.	Lesson 7.3 pp. 187A-188	
[M02-S4C1-03] Recognize line(s) of symmetry for a 2-dimensional shape.	I can recognize line(s) of symmetry for a 2-dimensional shape.	Lesson 7.4 pp. 189A-192	
[M02-S4C1-01] Compare attributes of 2-dimensional shapes (square, rectangle, triangle, and circle).	I can compare shapes.	Lesson 7.5 pp. 193A-194	
[M02-S4C2-01] Recognize same shape in different positions (flip/reflection).	I can recognize a shape when it is flipped over.	Lesson 7.6 pp. 195A-196	
[M02-S3C1-01] Communicate a grade-level appropriate pattern, using symbols or numbers (e.g., \dot{N} , O, D, \dot{N} , O, D, \dot{N} , __, __, __).	I can explain a pattern using symbols or numbers.	Lesson 7.7 (Supplementary lesson needed)	
[M02-S3C1-02] Extend a grade-level appropriate repetitive pattern (e.g., 12, 22, 32, __, __, __).	I can continue a pattern.		
[M02-S3C1-03] Create grade-level appropriate patterns.	I can create a pattern.		
[M02-S4C1-01] Compare attributes of 2-dimensional shapes (square, rectangle, triangle, and circle).	I can compare shapes.	Chapter 8 (only introduce solid shapes)	

November

Performance Objective	Student Outcomes	Core Resource	Assessment
[M02-S1C1-14] Make models that represent given fractions (halves and fourths).	I can make models that show fractions for halves and fourths.	Lesson 9.1 pp. 227A-228	
[M02-S1C1-15] Identify in symbols and words a model that is divided into equal fractional parts (halves and fourths).	I can show you with symbols and words if a model is divided into halves or fourths.		
[M02-S1C2-13] Apply the symbols: +, -, x, ÷, =, !, <, >, %.	I can use different math symbols.	Lesson 9.4 pp. 235A-236	
[M02-S1C2-15] Demonstrate addition of fractions with like denominators (halves and fourths) using models.	I can show how to add halves (fourths) using models.	Supplementary resource needed	
[M02-S1C2-16] Demonstrate subtraction of fractions with like denominators (halves and fourths) using models.	I can show how to subtract halves (fourths) using models.		
[M02-S1C1-08] Construct models to represent place value concepts for the one's, ten's, and hundred's places.	I can make models to show place value for one's, ten's and hundred's.	Lesson 10.1 pp. 263A-264	

2nd Grade Math: Curriculum Map and Pacing Guide 2008/2009

Quarter 2

November

Performance Objective	Student Outcomes	Core Resource	Assessment
[M02-S1C1-08] Construct models to represent place value concepts for the one's, ten's, and hundred's places.	I can make models to show place value for one's, ten's and hundred's.	Lesson 10.3, 10.4, 10.5, 10.6	
December			
Performance Objective	Student Outcomes	Core Resource	Assessment
[M02-S1C2-04] Add one- and two-digit whole numbers with regrouping.	I can add whole numbers with regrouping.	Lesson 11.1 pp. 289A-290	
[M02-S1C3-01] Solve problems using a variety of mental computations and reasonable estimation.	I can solve problems using mental math and estimation.	Lesson 11.3 pp. 293A-296	
[M02-S1C2-06] Add 3 one- or two-digit addends.	I can add 3 numbers.	Lesson 11.4 pp. 297A-298	
[M02-S1C2-11] Demonstrate the associative property of addition [e.g., $(3 + 5) + 4 = 3 + (5 + 4)$].	I can show what the associative property of addition is.		
[M02-S1C3-01] Solve problems using a variety of mental computations and reasonable estimation.	I can solve problems using mental math and estimation.	Lesson 11.5 pp. 299A-303	
[M02-S1C2-02] Demonstrate the process of subtraction using manipulatives with two-digit whole numbers.	I can show the process of subtraction using manipulatives.	Lesson 12.1, 12.2	
[M02-S1C2-05] Subtract one- and two-digit whole numbers with regrouping.	I can subtract whole numbers with regrouping.	Lesson 12.4 (Supplementary lesson needed)	
[M02-S5C1-01] Create contextual problems that require addition or subtraction with one- or two-digit numbers.	I can create word problems that need adding or subtracting to solve.		
[M02-S1C2-02] Demonstrate the process of subtraction using manipulatives with two-digit whole numbers.	I can show the process of subtraction using manipulatives.	Lesson 12.5 pp. 333A-334	
[M02-S1C2-05] Subtract one- and two-digit whole numbers with regrouping.	I can subtract whole numbers with regrouping.		

2nd Grade Math: Curriculum Map and Pacing Guide 2008/2009

Quarter 3

January

Performance Objective	Student Outcomes	Core Resource	Assessment
[M02-S1C2-05] Subtract one- and two-digit whole numbers with regrouping.	I can subtract whole numbers with regrouping.	Lesson 13.1, 13.2	
[M02-S1C2-07] Select the grade-level appropriate operation to solve word problems.	I can choose whether to add or subtract to solve a word problem.	Lesson 13.6 (Supplementary lesson needed)	
[M02-S3C3-01] Use variables in contextual situations.	I can use variables in contextual situations.		
[M02-S1C1-16] Count money through \$5.00 using manipulatives and pictures of bills and coins.	I can count money through \$5.00 using manipulatives and pictures.	Lesson 14.3 pp. 387A-390	
[M02-S1C1-17] Identify the value of a collection of money using the symbols ¢ and \$ through \$5.00.	I can tell the value of a group of coins using ¢ and \$.	Lesson 14.4 pp. 391A-394	
[M02-S1C1-16] Count money through \$5.00 using manipulatives and pictures of bills and coins.	I can count money through \$5.00 using manipulatives and pictures.	Lesson 15.1 pp. 407A-408	
[M02-S1C1-17] Identify the value of a collection of money using the symbols ¢ and \$ through \$5.00.	I can tell the value of a group of coins using ¢ and \$.	Lesson 15.2, 15.5 (Supplementary lesson needed)	
[M02-S1C2-13] Apply the symbols: +, -, x, ÷, =, <, >, %.	I can use different math symbols.		

February

Performance Objective	Student Outcomes	Core Resource	Assessment
[M02-S4C4-03] Tell time to the quarter hour using analog and digital clocks.	I can tell time to the quarter hour.	Lesson 16.4 pp. 441A-444	
[M02-S2C1-06] Solve problems using graphs, charts, and tables.	I can solve problems using graphs, charts, and tables.	Lesson 16.8 pp. 451A-455	
[M02-S1C3-02] Estimate the measurement of an object using U.S. customary standard and non-standard units of measurement.	I can estimate the size of an object using a measuring tool like a ruler or using another object like a paper clip.	Lesson 17.1 pp. 475A-478	
[M02-S1C3-02] Estimate the measurement of an object using U.S. customary standard and non-standard units of measurement.	I can estimate the size of an object using a measuring tool like a ruler or using another object like a paper clip.	Lesson 17.2 pp. 479A-482	
[M02-S1C3-03] Compare an estimate to the actual measure.	I can estimate and then compare my estimate to the real measure.		
[M02-S1C3-04] Evaluate the reasonableness of an estimate.	I can tell if my estimate makes sense.		

2nd Grade Math: Curriculum Map and Pacing Guide 2008/2009

Quarter 3

February

Performance Objective	Student Outcomes	Core Resource	Assessment
[M02-S4C4-06] Measure a given object using the appropriate unit of measure: • length – inches, miles, • capacity/volume – pints, quarts, and • mass/weight – ounces.	I can measure objects correctly.	Lesson 17.2 pp. 479A-482	
[M02-S1C3-02] Estimate the measurement of an object using U.S. customary standard and non-standard units of measurement.	I can estimate the size of an object using a measuring tool like a ruler or using another object like a paper clip.	Lesson 17.3 pp. 483A-484	
[M02-S1C3-03] Compare an estimate to the actual measure.	I can estimate and then compare my estimate to the real measure.		
[M02-S4C4-06] Measure a given object using the appropriate unit of measure: • length – inches, miles, • capacity/volume – pints, quarts, and • mass/weight – ounces.	I can measure objects correctly.		
[M02-S4C4-07] State equivalent relationships: • 12 inches = 1 foot, • 60 minutes = 1 hour, • 24 hours = 1 day, • 7 days = 1 week, • 12 months = 1 year, • 100 pennies = 1 dollar, • 10 dimes = 1 dollar, and • 4 quarters = 1 dollar.	I can tell when two measures mean the same amount.		
[M02-S1C3-02] Estimate the measurement of an object using U.S. customary standard and non-standard units of measurement.	I can estimate the size of an object using a measuring tool like a ruler or using another object like a paper clip.		
[M02-S1C3-03] Compare an estimate to the actual measure.	I can estimate and then compare my estimate to the real measure.	Lesson 17.4 (Supplementary lesson and materials needed)	
[M02-S4C4-01] Identify the type of measure (e.g., weight, height, and time) for each attribute of an object.	I can tell you what kind of measure that we need to use when measuring something.		
[M02-S4C4-02] Select the appropriate U.S. customary measure of accuracy: • length – inches, feet, yards, miles, • capacity/volume – pints, quarts, and • mass/weight – ounces.	I can choose the correct measure when I am given something to measure.		
[M02-S4C4-05] Select the appropriate tool to measure the given characteristic of an object.	I can choose the correct tool to use when I measure.		
[M02-S4C4-06] Measure a given object using the appropriate unit of measure: • length – inches, miles, • capacity/volume – pints, quarts, and • mass/weight – ounces.	I can measure objects correctly.		

2nd Grade Math: Curriculum Map and Pacing Guide 2008/2009

Quarter 3

February

Performance Objective	Student Outcomes	Core Resource	Assessment
[M02-S4C4-07] State equivalent relationships: • 12 inches = 1 foot, • 60 minutes = 1 hour, • 24 hours = 1 day, • 7 days = 1 week, • 12 months = 1 year, • 100 pennies = 1 dollar, • 10 dimes = 1 dollar, and • 4 quarters = 1 dollar.	I can tell when two measures mean the same amount.	Lesson 17.4 (Supplementary lesson and materials needed)	
SAMPLE			

2nd Grade Math: Curriculum Map and Pacing Guide 2008/2009

Quarter 4

March

Performance Objective	Student Outcomes	Core Resource	Assessment
[M02-S1C3-02] Estimate the measurement of an object using U.S. customary standard and non-standard units of measurement.	I can estimate the size of an object using a measuring tool like a ruler or using another object like a paper clip.	Lesson 18.1 (Supplementary lesson needed)	
[M02-S1C3-03] Compare an estimate to the actual measure.	I can estimate and then compare my estimate to the real measure.		
[M02-S4C4-06] Measure a given object using the appropriate unit of measure: • length – inches, miles, • capacity/volume – pints, quarts, and • mass/weight – ounces.	I can measure objects correctly.		
[M02-S1C3-02] Estimate the measurement of an object using U.S. customary standard and non-standard units of measurement.	I can estimate the size of an object using a measuring tool like a ruler or using another object like a paper clip.	Lesson 18.3 (Supplementary lesson needed)	
[M02-S1C3-03] Compare an estimate to the actual measure.	I can estimate and then compare my estimate to the real measure.		
[M02-S4C4-06] Measure a given object using the appropriate unit of measure: • length – inches, miles, • capacity/volume – pints, quarts, and • mass/weight – ounces.	I can measure objects correctly.		
[M02-S4C4-07] State equivalent relationships: • 12 inches = 1 foot, • 60 minutes = 1 hour, • 24 hours = 1 day, • 7 days = 1 week, • 12 months = 1 year, • 100 pennies = 1 dollar, • 10 dimes = 1 dollar, and • 4 quarters = 1 dollar.	I can tell when two measures mean the same amount.		
[M02-S3C4-01] Identify the change in a variable over time (e.g., an object gets taller, colder, heavier).	I can tell how something can change over a period of time.	Lesson 18.5, 18.6 (Reference Science text for supplement)	
[M02-S3C4-02] Make simple predictions based on a variable (e.g., a child's height from year to year).	I can make a prediction about what will happen.		
[M02-S4C4-02] Select the appropriate U.S. customary measure of accuracy: • length – inches, feet, yards, miles, • capacity/volume – pints, quarts, and • mass/weight – ounces.	I can choose the correct measure when I am given something to measure.	Lesson 18.7 (Supplementary lesson needed)	
[M02-S4C4-05] Select the appropriate tool to measure the given characteristic of an object.	I can choose the correct tool to use when I measure.		
[M02-S1C2-10] State multiplication facts: 2s, 5s and 10s.	I can say the multiplication facts: 2s, 5s, and 10s.	Lesson 19.2 pp. 549A-550	
[M02-S1C2-13] Apply the symbols: +, -, x, ,, =, ', <, >, %.	I can use different math symbols.		

2nd Grade Math: Curriculum Map and Pacing Guide 2008/2009

Quarter 4

March

Performance Objective	Student Outcomes	Core Resource	Assessment
[M02-S1C2-10] State multiplication facts: 2s, 5s and 10s.	I can say the multiplication facts: 2s, 5s, and 10s.	Lesson 19.3 pp. 551A-552	
[M02-S1C2-12] Apply grade-level appropriate properties to assist in computation.	I can use different properties to help me solve some problems.	Lesson 19.4 pp. 553A-556	

April

Performance Objective	Student Outcomes	Core Resource	Assessment
[M02-S1C1-04] Identify whole numbers through 999 in or out of order.	I can tell you whole numbers through 100 (999) in and out of order.	Lesson 20.1 pp. 573A-576	
[M02-S1C1-05] Write whole numbers through 999 in or out of order.	I can write whole numbers through 100 (999) in and out of order.		
[M02-S1C1-02] Identify a whole number represented by a model with a word name and symbol 0 through 999.	I can tell you what number a model shows.	Lesson 20.2 pp. 577A-578	
[M02-S1C1-05] Write whole numbers through 999 in or out of order.	I can write whole numbers through 100 (999) in and out of order.		
[M02-S1C1-08] Construct models to represent place value concepts for the one's, ten's, and hundred's places.	I can make models to show place value for one's, ten's and hundred's.		
[M02-S1C1-09] Apply expanded notation to model place value through 999 (e.g., $378 = 3 \text{ hundreds} + 7 \text{ tens} + 8 \text{ ones}$).	I can use expanded notation to show place value.		
[M02-S1C1-08] Construct models to represent place value concepts for the one's, ten's, and hundred's places.	I can make models to show place value for one's, ten's and hundred's.	Lesson 20.3 pp. 579A-580	
[M02-S1C1-09] Apply expanded notation to model place value through 999 (e.g., $378 = 3 \text{ hundreds} + 7 \text{ tens} + 8 \text{ ones}$).	I can use expanded notation to show place value.		
[M02-S1C1-04] Identify whole numbers through 999 in or out of order.	I can tell you whole numbers through 100 (999) in and out of order.	Lesson 20.4 (Supplementary lesson needed)	
[M02-S1C1-05] Write whole numbers through 999 in or out of order.	I can write whole numbers through 100 (999) in and out of order.		
[M02-S1C1-07] State verbally whole numbers, through 999, using correct place value (e.g., A student will read 528 as five hundreds, two tens, and eight ones.).	I can tell you whole numbers through 100 (999) using the correct place value.		

2nd Grade Math: Curriculum Map and Pacing Guide 2008/2009

Quarter 4

April

Performance Objective	Student Outcomes	Core Resource	Assessment
[M02-S1C1-09] Apply expanded notation to model place value through 999 (e.g., $378 = 3 \text{ hundreds} + 7 \text{ tens} + 8 \text{ ones}$).	I can use expanded notation to show place value.	Lesson 20.5 pp. 583A-586	
[M02-S1C1-05] Write whole numbers through 999 in or out of order.	I can write whole numbers through 100 (999) in and out of order.	Lesson 20.6 pp. 587A-588	
[M02-S1C1-11] Compare two whole numbers through 999.	I can compare two whole numbers.	Lesson 20.7 pp. 589A-590	
[M02-S1C1-13] Order three or more whole numbers through 999 (least to greatest or greatest to least).	I can put three or more whole numbers in order from least to greatest or greatest to least.	Lesson 20.8 pp. 591A-592	
[M02-S2C1-06] Solve problems using graphs, charts, and tables.	I can solve problems using graphs, charts, and tables.	Lesson 20.9 pp. 593A-597	
[M02-S1C2-01] Demonstrate the process of addition through two three-digit whole numbers, using manipulatives.	I can show the process of addition using manipulatives.	Lesson 21.1, 21.2, 21.3	
May			
Performance Objective	Student Outcomes	Core Resource	Assessment
[M02-S1C1-18] Use decimals through hundredths in contextual situations with money.	I can tell how much amount of money when I see it written with decimals.	Lesson 22.5 (Supplementary lesson needed)	
[M02-S1C1-19] Compare two decimals using money, through hundredths, using models, illustrations, or symbols.	I can compare two amounts of money and tell which is larger or smaller when I see it written with ¢ and \$.		
[M02-S1C2-07] Select the grade-level appropriate operation to solve word problems.	I can choose whether to add or subtract to solve a word problem.	Lesson 22.6 (Supplementary lesson needed)	
[M02-S1C2-08] Solve word problems using addition and subtraction of two 2-digit numbers, with regrouping AND two 3-digit numbers without regrouping.	I can solve word problems using addition and subtraction of two digit numbers with regrouping. (three digit numbers without regrouping.)		

2nd Grade Math: Curriculum Map and Pacing Guide 2008/2009

Quarter 4

May

Performance Objective	Student Outcomes	Core Resource	Assessment
[M02-S2C3-01] Make arrangements that represent the number of combinations that can be formed by pairing items taken from 2 sets, using manipulatives (e.g., How many types of sandwiches can one make with 3 different types of fillings and 2 types of bread if only one type of bread and 1 kind of filling is used for each sandwich?).	I can show how many ways I can put together two objects taken from two sets.	Supplementary text needed	
[M02-S2C4-01] Color pictures with the least number of colors so that no common edges share the same color (increased complexity throughout grade levels).	I can color pictures so that no edges that touch have the same color and so I use the least colors possible.		
SAMPLE			

Date: _____ Student: _____ Grade: _____

**Scoring Guide/Rubric for Grade K-8: ASL/Second Language Curriculum
COMMUNICATION for Skill Development**

Student is expected to:

A. Message is: (receptive)	B. Delivery is: (expressive)	C. Info given (detailing)	D. Grammar	E. Acquisition (1 st -2 nd lang.)	F. Vocabulary
3 <input type="checkbox"/> Easily understood in entirety	3 <input type="checkbox"/> Effortless and smooth, no assistance	3 <input type="checkbox"/> Related information is greatly expanded	3 <input type="checkbox"/> Demonstrates accurate use of features in an appropriate cultural way	3 <input type="checkbox"/> The student closely approximates native signing	3 <input type="checkbox"/> Is used accurately with creative variety
2 <input type="checkbox"/> Somewhat understandable	2 <input type="checkbox"/> Sometimes halting with little assistance	2 <input type="checkbox"/> Provides a small amount of related information	2 <input type="checkbox"/> Demonstrates a weak use of ASL features	2 <input type="checkbox"/> Somewhat influenced by first language	2 <input type="checkbox"/> Is simple with some inappropriate use
1 <input type="checkbox"/> Difficult to understand	1 <input type="checkbox"/> Halting with a lot of assistance	1 <input type="checkbox"/> Vague or confusing information is given	1 <input type="checkbox"/> Demonstrates a lack of ASL features inappropriate behaviors	1 <input type="checkbox"/> Is heavily influenced by first language	1 <input type="checkbox"/> Is very poor or inaccurate, for topic

Comments:

Reviewed by: _____ Date: _____

Student _____ Grade: _____

**Scoring Guide/Rubric for Grade K-8: ASL/Second Language Curriculum
Interview for Skill Development**

Student is expected to:

A. Questions & Answers	B. Delivery is: (expressive)	C. Info given (detailing)	D. Grammar	E. Acquisition (1st-2nd lang.)	F. Vocabulary
3 <input type="checkbox"/> Are elaborating and varied in situations; adapts questions to previous responses.	3 <input type="checkbox"/> Effortless and smooth, no assistance	3 <input type="checkbox"/> Related information is greatly elaborated	3 <input type="checkbox"/> Demonstrates accurate use of features in an appropriate cultural way	3 <input type="checkbox"/> The student closely approximates native signing	3 <input type="checkbox"/> Is used accurately with creative variety
2 <input type="checkbox"/> Are basic, simplistic with some inappropriate questioning or responding	2 <input type="checkbox"/> Sometimes halting with little assistance	2 <input type="checkbox"/> Provides a small amount of information relating to the question	2 <input type="checkbox"/> Demonstrates a weak use of ASL features	2 <input type="checkbox"/> Somewhat influenced by first language	2 <input type="checkbox"/> Is simple with some inappropriate use
1 <input type="checkbox"/> Are minimal with inappropriate elaboration (yes/no type; one-word responses.)	1 <input type="checkbox"/> Halting with a lot of assistance	1 <input type="checkbox"/> Is vague or confusing information relating to the question	1 <input type="checkbox"/> Has no apparent understanding ASL features	1 <input type="checkbox"/> Is heavily influenced by first language	1 <input type="checkbox"/> Is very poor or inaccurate, for topic

Comments:

Reviewed by: _____

Date: _____ **Date:** _____

Student: _____ **Grade:** _____

**Scoring Guide/Rubric for Grade K-8: ASL/Second Language Curriculum
Narration for Skill Development**

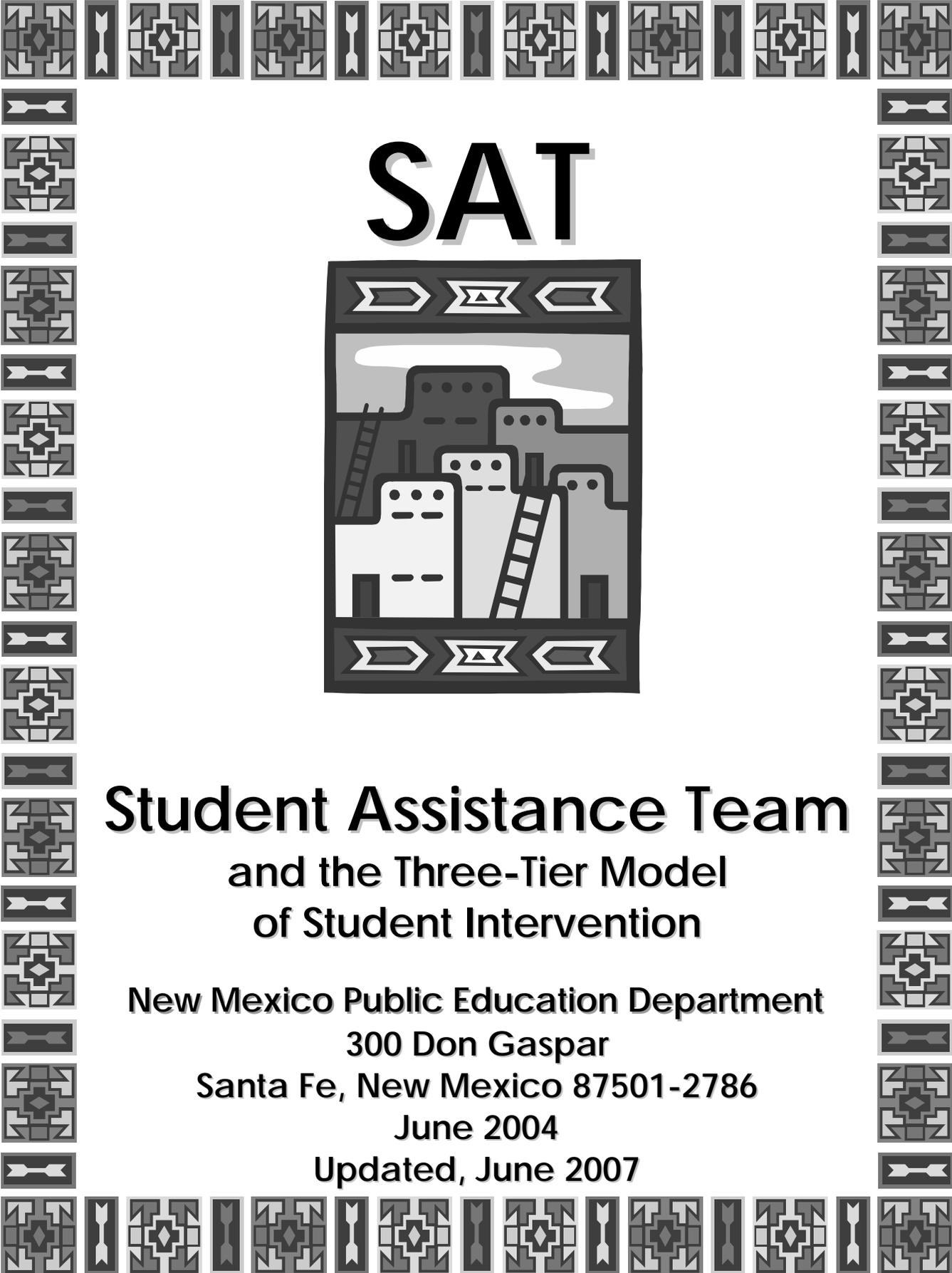
Student is expected to:

A. Development & Sequencing	B. Delivery is:	C. Cultural Behaviors	D. Grammar	E. Acquisition (1st-2nd lang.)	F. Vocabulary
3 <input type="checkbox"/> Creatively developed in details. Holds the audience's interest. Beginning middle & ending parts.	3 <input type="checkbox"/> Effortless and smooth, no assistance	3 <input type="checkbox"/> Displays many appropriate target cultural behaviors	3 <input type="checkbox"/> Shows the use of strong ASL features	3 <input type="checkbox"/> Is nearly native signing	3 <input type="checkbox"/> Is used accurately with creative variety
2 <input type="checkbox"/> Partially developed, may be missing some parts of the story	2 <input type="checkbox"/> Sometimes halting with little assistance	2 <input type="checkbox"/> Displays some target cultural behaviors	2 <input type="checkbox"/> Shows weak use of ASL features	2 <input type="checkbox"/> Somewhat influenced by first language	2 <input type="checkbox"/> Is simple with some inappropriate use
1 <input type="checkbox"/> Unsatisfactory development, no sequencing	1 <input type="checkbox"/> Halting with a lot of assistance	1 <input type="checkbox"/> Displays no target cultural behaviors	1 <input type="checkbox"/> Has no apparent understanding ASL features	1 <input type="checkbox"/> Is heavily influenced by first language	1 <input type="checkbox"/> Is very poor or inaccurate, for topic

Comments:

Reviewed by: _____

Date: _____



SAT



Student Assistance Team and the Three-Tier Model of Student Intervention

New Mexico Public Education Department
300 Don Gaspar
Santa Fe, New Mexico 87501-2786
June 2004
Updated, June 2007



The State of New Mexico
Student Assistance Team Manual

June 2004

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Governor

Bill Richardson

Office of the Secretary of Education

Dr. Veronica García, Secretary of Education

Dr. Catherine Cross Maple, Deputy Secretary of Education

*Dr. Karen K. Harvey, Assistant Secretary for Quality Assurance
and Systems Integration*

Dr. Sheila Hyde, Director, Quality Assurance Bureau

New Mexico Public Education Commission

Ms. Catherine M. Smith, Mimbres

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Ms. Aileen Garcia, Santa Fe

Ms. Millie Pogna, Albuquerque

Mr. Dennis James Roch, Texico

Mr. M. Andrew Garrison, Albuquerque

Ms. Kathryn K. Krivitzky, Albuquerque

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Table of Contents



Foreword

An Introduction to the Three-Tier Model of Student Intervention..... 4-5



Part 1: Overview

SAT Purpose and Mission/Definitions of Terms 6-7

Federal and State Mandates Relevant to the SAT 7-9

IDEA and Section 504; 6.31.2.10 C NMAC; Statute 22-1-1.2; Statute 22-2C-6

Questions and Answers about Mandates and Best Practices 9-11



Part 2: The Student Assistance Team (SAT)

Introduction and Who Comprises the Team 11-12

Procedural Guidelines for SATs..... 13-14



Part 3: Addressing Student Individual Needs: Three-Tier Model

Tier I: Universal Screening/Appropriate Instruction

Explanation of Procedures 15

Flowchart 16

Tier II: SAT Child Study Process

Explanation of Procedures, Considerations, Intervention Plans 17-28

Evaluating and Choosing Appropriate Interventions 28

Follow-Up and Determination of Further Referral 29-31

Flowchart 32

Tier III: The Multidisciplinary Evaluation Process/Special Education

Explanation of Process 33-34

Flowchart 35



Part 4: SAT Interventions

Traits of Successful Interventions 36

Sample Accommodations in Seven Major Student Areas of Need..... 37-43

1) Attention Problems/Inability to Focus 37

2) Difficulty Completing Assignments/Homework 38

3) Organizational Skills Deficits 39

4) Difficulty Following Directions..... 40

5) Exhibiting Inappropriate Behavior 41

6) Immature Social & Interpersonal Skills 42

7) Problems with Language Fluency—Speaking, Writing, Listening..... 43





Sample Teacher Strategies for Accommodation 44–47
 PRESENTATION: Alternate Methods of Presenting Lessons and Materials..... 44
 PHYSICAL ENVIRONMENT: Structuring the Classroom Environment 45
 MATERIALS: Strategies for Adapting Student and Teacher Materials 46
 INSTRUCTION: Helping Students Acquire Skills in the Regular Classroom 47



Part 5: Other SAT Responsibilities

SAT Responsibility Regarding Retention and Promotion 48–49
 Flowchart Grades 1–7 50
 Flowchart Grade 8 51
 Section 504 Team and Accommodations /Referrals to Other Programs 52–54



Part 6: Data Collection & Record Keeping—Reproducible Forms

SAT Referral Packet 55–60
 Notice of and Invitation to Parent or Guardian of the SAT Meeting 61
 Student Observation Form 62–63
 SAT Meeting Summary Form..... 64–68
 SAT Intervention Plan 69
 Intervention Plan Progress Report and Follow-Up Form 70
 Academic Improvement Plan 71–72
 Section 504 Accommodation Plan 73–74
 SAT Log 75–76





Foreword

An Introduction to the Three-Tier Model of Student Intervention



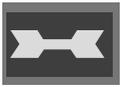
The Three-Tier Design Model

The term *three-tier* model of intervention is borrowed from public health treatment models that focus on levels of intervention. Simply put, it is a model consisting of three well-defined and separate processes running on different levels within a system. In New Mexico, this principle has been applied to develop a model of student intervention for school-aged students. The model has three distinct levels, or **tiers**, of instructional interventions that account for **all** students within a learning system. Each tier encompasses a layer of intervention or instruction that responds to student needs. As a student has more intense learning or behavioral needs, he or she may progress to the next tier that provides more intense intervention.



Tier I—Universal Screening/Appropriate Instruction

Tier I provides primary intervention in the form of universal screening, appropriate classroom instruction, and school-wide interventions to **all** students. The majority (80–90%) of school-aged students at this level will respond successfully in the regular education classroom to appropriate instruction based on state and district standards. A teacher may recognize that an individual student is struggling to learn the standard curriculum, working beyond the standard curriculum, or having difficulty maintaining appropriate behavior in the regular education classroom. At that point, the teacher tries typical classroom- or grade-level-based interventions. In some cases, a student will demonstrate little or no positive response to the teacher’s informal interventions. Or, universal screening procedures will indicate a need. At that point, the student is referred to Tier II.



Tier II—Early Intervention: The Child Study Process by the Student Assistance Team (SAT) or the Section 504 Team

Tier II is designed to provide early intervention for a small percentage (5–10%) of students who are performing above or below standards in academics and/or behavior. Interventions for these at-risk students either are provided as targeted individual interventions in one or more areas. That is done, as described in this manual, through a **SAT Intervention Plan**, a **Section 504 Plan**, or through a specialized school program that includes small-group instruction. Tier II interventions are provided **in addition to** the appropriate instruction provided in Tier I. The interventions are designed to prevent, alleviate, or accommodate challenges a student may be facing. These interventions may be short-term or they





may continue for an entire school year. The ultimate goal is to assist the student in succeeding within the regular education setting with the standard curriculum. In spite of a school’s best efforts at delivering appropriate Tier I instruction and Tier II interventions, a few students may not demonstrate a significant and positive response to intervention. In those cases, those students may be referred to Tier III.



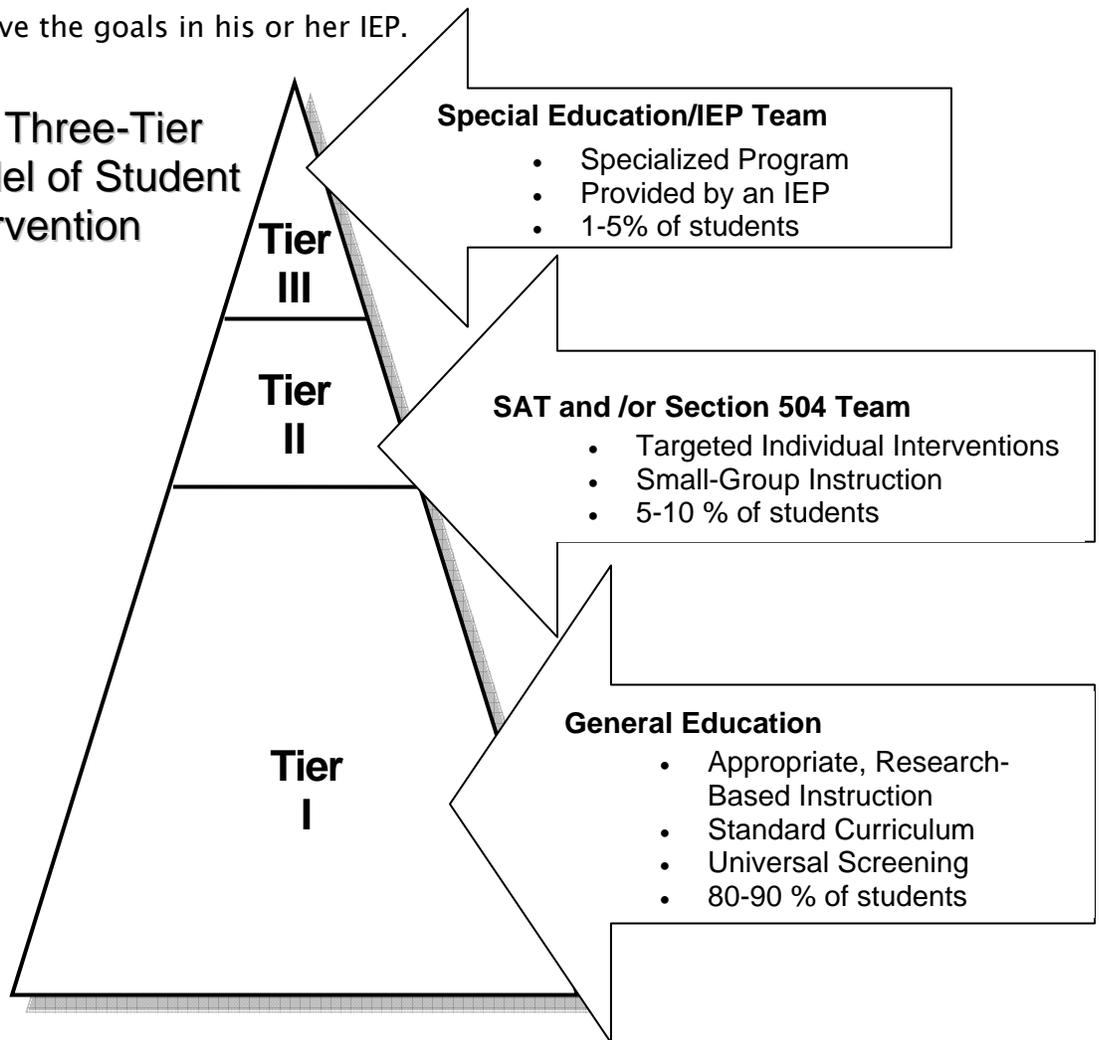
Tier III—Multidisciplinary Evaluation/Special Education



Students formally referred to Tier III first receive a multidisciplinary evaluation to determine their need for services at this level. Tier III serves a very small percentage of students (1-5 %) who demonstrate a need for an individualized program to accommodate and/or modify their learning or behavioral needs. Special education teachers, related service providers, and regular education teachers provide Tier III interventions that consist of specially-designed instruction and supplementary aids and services. Tier III interventions are provided to a student through an Individualized Education Program (IEP). The goal of Tier III is for the student to be successfully involved in and progress in the general education curriculum, and achieve the goals in his or her IEP.



The Three-Tier Model of Student Intervention





SAT Purpose and Mission



The Student Assistance Team (SAT) is a school-based group of people whose purpose is to provide additional Tier II support to students who are experiencing difficulties that are preventing them from benefiting from general education, because they are either performing below or above expectations. By “catching” these students in the child study phase, the SAT may not only help the student be able to remain and succeed in the general education program, but also reduce unnecessary referrals to special education. The SAT’s mission is to approach and arrive at appropriate solutions to problems in the school environment through a cooperative team effort. Although the team may make referrals to special education and other special programs, **the SAT is not part of the special education process, but rather a general education responsibility.**



The SAT addresses problems found through general screening or those brought up as concerns by parents, teachers, or other staff. The SAT designs interventions for those students who show need for individual consideration. Further, the SAT suggests interventions and focuses on student strengths that may alleviate or resolve the situation prior to referral to Tier III. In many cases, the SAT is able to assist students who need interventions in order to succeed, but who are not necessarily disabled and, therefore, do not qualify for special education or a Section 504 Plan. **Simply put, the SAT is a “support group” for the regular education teachers and students who need it.**

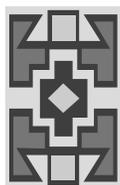


Definitions of Terms

Familiarization with the following terms will help clarify the roles and responsibilities of the SAT as they are discussed in this guide.



<p>Three-Tier Model: An intervention model that uses three levels of intervention depending on the student need’s and his or her response to the intervention</p>	<p>Universal Screening (Tier I): Tests given to <u>all</u> students to evaluate their health, language, achievement, and so on</p>
<p>Child Study Process (Tier II): Period during which a concern is raised and addressed with interventions prior to requesting a formal referral to Tier III</p>	<p>Multidisciplinary Evaluation: an evaluation that involves one or more disciplines to determine a student’s possible need for special education</p>



Interventions: A set of school-wide or individual activities designed to assist a student in achieving grade-level proficiency or appropriate behavior, possibly reducing the need for special education or other programs	Response to Intervention (RtI): using appropriate research-based instruction/interventions and then monitoring student performance (academic or behavioral) to determine a significant increase and/or improvement
IDEA: Individuals with Disabilities Education Act (Federal law)	IEP: Individualized Education Program; developed for students served at Tier III
FERPA: Family Educational Rights and Privacy Act: protects the privacy of student education records (Federal law)	Adequate Yearly Progress (AYP): measure adopted by the state to assess student achievement based on federal mandates
Standards-Based Assessment (SBA): a statewide yearly assessment based on state standards for required grade levels	Academic Proficiency: Mastery of subject-matter knowledge/skills specified in state standards for each grade. (See page 9.)
Section 504: Part of the Rehabilitation Act of 1973; aimed at non-discrimination against individuals with disabilities; includes temporary disabilities and conditions not covered under the IDEA (Federal civil rights law)	Academic Improvement Plan (AIP): Under State law, a written document developed by the SAT for a student who needs specific remediation to achieve academic proficiency and be promoted to the next grade
Accommodation: As part of an intervention plan, any adaptation to the instruction, environment, and/or presentation to enable success in general education	

Relevant Federal Mandates



IDEA (Individuals with Disabilities Education Act)

The IDEA is the federal law that provides funding to states in their efforts to ensure a free appropriate public education (FAPE) for eligible students with disabilities. To be eligible for special education (Tier III), a student must have one or more of the 13 disabilities defined within the IDEA, and the disability must impact his or her ability to learn in the general education curriculum and/or environment. Qualifying disabilities include autism, deafness, deaf-blindness, hearing impairment, mental retardation, multiple disabilities, orthopedic impairment, other health impairment, emotional disturbance, specific learning disability, traumatic brain injury, visual impairment



including blindness, or speech or language impairment. Eligible students must have an Individualized Education Program (IEP).

***NOTE:** New Mexico State Rules add **gifted** to the list of exceptionalities that qualify as eligible to receive special education and related services under an IEP.*



Section 504 (The Rehabilitation Act of 1973)

This is a federal civil rights law that protects the rights of individuals with disabilities. A person is eligible to receive accommodations if he or she has or has had a physical or mental impairment that substantially limits a major life activity that impacts the student’s educational program. In schools, plans for accommodations and/or services are developed at Tier II (called a *Section 504 Accommodation Plan*). **The SAT usually also wears the hat of the Section 504 team and develops the plan.** Funding comes from the general education budget. Students with disabilities receive either a Section 504 Plan or an IEP— not both. The SAT/504 Team identifies accommodations for students with disabilities who **do not qualify** as eligible for special education under the IDEA (Tier II). An IEP team develops the education plan for a student with a disability who **qualifies** for special education under the IDEA (Tier III).



State Mandates Relevant to the SAT



Subsections B–C of 6.31.2.10 NMAC [7/1/2007]

(The Three-Tier Model and Intervention Progress Monitoring)

The mandate for the SAT as a general education process and responsibility is found in state special education rules and it applies to general education as well. This rule provides that if, through universal screening (Tier I), parent referral, or teacher referral, a student is suspected of having a disability or need for educational support, then the SAT conducts further study in order to address possible causes for the educational difficulty. Prior to referral for special education evaluation, SAT–prescribed interventions are to be considered, implemented, and documented. If standards–based progress monitoring of Tier II interventions demonstrate that after no more than 18 weeks, the student’s response to intervention has not been positive and significant, then the SAT may refer the child for a full special education evaluation. On the other hand, the SAT may continue to require the implementation of those Tier II interventions until the student no longer requires the interventions, or it may resume the child study process to implement additional interventions. Tier II interventions are to be provided through a properly–constituted SAT, or similar process, and the SAT must include the student’s parents, and as, appropriate, the student.





Public School Code (Subsections D (1) and (3) of 22-1-1.2 NMSA 1978)

This statute requires that “...students who do not meet or exceed expectations will be given individual attention and assistance through extended learning programs and individualized tutoring...[and that] public schools make adequate yearly progress (AYP) toward educational excellence.”



Assessment and Accountability Act (Section 22-2C-6 NMSA 1978) Amended by House Bill 34 effective July 1, 2007

This statute addresses the responsibilities of districts to develop school–district–developed remediation and academic improvement programs and provide them to individual students who fail to make **academic proficiency** (as measured by grades, performance on school district assessments, and other measures identified by the school district). For students completing grades one through seven, an academic improvement plan (AIP) is developed by the SAT for those students and is to include time lines and monitoring methods designed to ensure progress toward overcoming academic deficiencies. At the end of grade eight, the SAT must develop an academic improvement plan that delineates the specific deficiencies and prescribes specific remediation designed to enable the student to succeed in high school.



In addition to remediation, the SAT is responsible for ensuring that promotion and retention statutes are followed and that it recommends placement in an alternative program for those students who fail to make academic proficiency for two successive school years. (See Part 5, pages 48–51 for more information about the SAT and this state statute.)



Q & A about State/Federal Mandates and “Best Practices”

Q. How is an *academic improvement plan (AIP)* developed by the SAT different from an *individualized education program (IEP)* developed by an IEP team?



A. The SAT is a group of professionals that serves staff and students and their families who are experiencing difficulties **in the general education** program or environment. The SAT has the very important function of being a child study analysis, planning, and action team. When a student is identified through universal screening (Tier I) or referred by staff or parents as having academic or behavioral issues, the SAT identifies the challenge, reviews existing information, synthesizes the information to develop a hypothesis as to what is causing the challenges. Then, it decides as a group





what can and should be done. The team identifies and implements interventions, monitors their effectiveness through data collection and documentation, and makes decisions about what additional steps or strategies may be needed.



By contrast, an IEP team is assembled for the sole purpose of addressing the needs of an *individual* student who has one or more disabilities **and** qualifies for special education or related services under the eligibility requirements of the IDEA (Tier III). In New Mexico, gifted students may also be eligible for special education services. The IEP team develops an IEP tailored to that student’s educational and/or behavioral needs. Though regular education teachers are usually members of an IEP team, the IEP team and the IEP are part of the special education process under the IDEA at Tier III.



While the IEP team concentrates on one student receiving special education services, the SAT improves the quality of general education as a whole by offering interventions to other students who need them and specific help for regular education teachers about how to effectively handle and solve problems. The SAT has the vital role of eliminating unnecessary and inappropriate referrals to Tier III for a multidisciplinary evaluation due to misidentification of problems or a plain misunderstanding of the student’s culture, language, situation, or other needs.



Q. What are the “musts” and “best practices” for general education and for SAT teams in particular? What about intervention timelines?



A. When a concern surfaces from universal screening or is brought to the school’s attention by staff or parents (Tier I), the student must be referred to the school’s group of professionals (SAT), which gathers and examines information about the student and then attempts to pinpoint the underlying issues that are causing the student to experience academic and/or behavioral challenges. The SAT then collaborates to design and implement academic and/or behavioral interventions that assist the student to be better able to benefit from his or her education. The SAT also needs to define a reasonable time frame for the intervention(s) to take effect, based on the nature of the intervention, and monitor their effectiveness—response to intervention. **State rules provide for period of no more than 18 weeks (with monitoring recommended at no more than 2–week intervals) in order to determine whether the student has demonstrated a significant positive response to intervention, unless the student is in obvious crisis.** The SAT must keep documentation of all of its decisions and efforts on behalf of the student.





SAT records must be kept confidential as required by the federal law known as FERPA. (See page 7 and FERPA regulations at 34 CFR, Sec. 99.)



The SAT needs to make every effort to help the student succeed in the regular education setting. This includes involving the parent in the child study process as soon as a challenge surfaces. If, after a reasonable period of time, the SAT finds that the student has not demonstrated a significant positive response to intervention, it may decide to formally refer the student to Tier III for special education evaluation or to another program that will help meet his or her needs. **Remember, if any testing is to be done outside the scope of general screening or tests given to all students, prior written parental consent is needed.** If parents are not English proficient, the SAT may enlist the help of the district’s bilingual education personnel or other supports to help find an interpreter, or other method of communicating with the parents.



The SAT also has very specific state mandates to follow with regard to **promotion** and **retention**, including preparation of academic improvement plans. (These are addressed later in this manual.) Although the SAT is not a function of special education, it may be responsible for developing accommodations at Tier II under Section 504 for students with disabilities who are not eligible for special education (Tier III). One or more special education professionals may serve on the SAT, but must not serve as its “leader.” The goal is to achieve a balance of knowledge, skills, and perspectives in solving individual problems. It is a best practice to ask these and other specialists, such as speech therapists or school psychologists, to join the SAT on an “as needed” basis.



The Student Assistance Team (SAT)



The SAT is a cooperative, peer problem-solving group that assists students, families, and teachers in seeking positive solutions for concerns about individual students. Through the SAT, school staff, parents, community agencies, and others who can offer insight, work together to plan a positive course of action, assign responsibilities, and monitor results to determine whether the student has responded to intervention. By drawing upon school, home, and community resources, successful intervention can and does occur. Although the SAT is a vehicle through which a student may be referred for a multidisciplinary evaluation, the team’s main function is to use the resources available within the school and community to provide supportive and preventative measures needed to help students be successful in the regular education environment. Through offering appropriate interventions based on careful analysis of a student’s unique situation





and strengths, the SAT not only helps students remain and succeed in the general education program, but also reduces unnecessary referrals to special education. The task of the SAT is to find and eliminate obstacles that are in a student’s path toward success. This is best achieved by focusing on the obstacle, not placing blame or judgment. **The SAT’s role is to be a support and resource to the teacher—not to replace or relieve the teacher of his or her responsibility for educating the child.** By laying a foundation that recognizes that *all* members of the team have the same goal—to create a learning environment that contributes to the achievement of the student—the team can work united rather than divided.



Who Comprises the Team



The SAT is made up of a core group that anchors the team. Core members must have good communication skills and a solid working knowledge about a variety of supports (types of interventions, educational and community resources, etc.). Core team members may vary by school, but should include at minimum professional staff from administration, regular education, and specialists and/or resource areas. For example, the core SAT may be the school principal, one or two classroom teachers, and a school counselor. Those who serve on the core team must be willing to commit the time and effort needed to produce the desired results. Ideally, all staff should be trained in the basic operations of the SAT, but the core members must have a good understanding of the purpose and process. Annual training in SAT procedures should be provided. Core members also need skill training in social services, as well as in the selection of instructional and behavioral interventions. Principals may want to appoint individuals yearly to the SAT on a rotating basis so that the responsibilities are shared among the staff.



When the team is called upon to address the needs of an individual student, in addition to the core members, the person who referred the student (whether educator or parent) or brought up a concern joins the team. A varying number of other individuals may serve on the team, depending on the types of concerns and expertise needed. For example, specialists, such as speech therapists, special education teachers, bilingual education teachers, reading teachers, nurses, social workers, school psychologists, or community agencies can bring valuable needed perspectives and ideas to the team. Every effort should be made to include the parent (or the family member legally serving as the “parent”) and, if appropriate, the student on the team.





Procedural Guidelines for SATs

There is no one method or process for conducting the SAT meeting. However, the following guidelines may help your team work effectively and get results:



- ▶ The success of the SAT often hinges on the level of involvement of the parents and student. Always invite parents to participate and contribute, and treat them as equal team members. If possible and appropriate, include the student as well. He or she can be invaluable in providing insight into how to address the concern.



- ▶ One person serves as the SAT **supervisor** or **chairperson** and directs the activities of the team. This person could be an administrator or someone the administrator designates, such as school counselor. He or she receives referrals to the SAT from staff or parents and convenes SAT meetings. After a decision is made, this person is also responsible for seeing that the decision is implemented, proper documentation and data collection is maintained, and that timely follow-up is done.



- ▶ Appoint one person as team **facilitator**. This person is not the “leader” of the group in the sense of dominating it, but rather takes the responsibility for the flow and tone of the meeting. The facilitator keeps the group focused, makes sure that everyone has opportunities to contribute, elicits responses and comments, and ensures that the tone of the meeting stays positive and productive, as well as watches the timeframe. The facilitator is responsible for seeing that the purpose of the SAT is met and that each aspect—identifying the challenge and student strengths, developing the intervention plan, and assessing the probable effectiveness of the interventions—is addressed and given the appropriate time and consideration. The facilitator then ensures that the discussion is limited to the student and the concern that brought the referral and that, given the allotted time, no component is weighted such that others are neglected. The facilitator can achieve this by using guided questions and comments that redirect the discussion.



- ▶ Have one person serve as **recorder**. This person documents the discussion on the *SAT Summary Form* (pages 64 to 68), as well as completes all relevant paperwork. The recorder also serves as timekeeper, announces agreed-upon periods of time for discussion and other activities, and lets the team know when time is running short. *Tip:* The recorder might enlarge this form and post it on the wall where all members can see it as the discussion





evolves. Then transfer the information to the regular-size form and destroy the wall poster at the end of the meeting so there are no confidentiality concerns.

- ▶ Identify school and/or community resources that can provide the SAT training on cultural diversity or other relevant factors that must be considered.
- ▶ Obtain **staff training on the SAT process, including understanding cultural, language, and socioeconomic differences that may be misidentified as problems**. Core team members should seek more in-depth training in the details of the process and their roles. Ideally, parent groups should also receive information and training in the SAT process.
- ▶ Obtain staff training on the three-tiered model of student intervention and response to intervention (RtI).
- ▶ Remember: If any tests outside those given in general screening are suggested, the team must get written parental consent. For example, the team cannot suggest a test such the Wide Range Achievement Test (WRAT-3) without **prior parent consent**, since the test is not given school-wide.
- ▶ Make sure that the interventions selected are possible within the school setting and are measurable. Use the student's strengths as the basis for designing interventions.
- ▶ Establish a close-ended time period for interventions to be implemented the intervention to take effect. This will **vary according to the type of intervention and the individual circumstances, but no more than 18 weeks is required to ensure that interventions have time to take effect**. It is also recommended that a student's response to interventions be monitored in 2-week increments.
- ▶ Assign responsibilities and time lines for providing materials or training to teachers to implement an intervention, for contacting outside resources, and for monitoring and documenting the progress.
- ▶ Document everything! See the last section of this manual for reproducible forms for documenting SAT communications, meetings, decisions, plans, and follow-up.



The SAT process can assist teachers by offering peer support, professional development, and school-community networking.



Tier I: Universal Screening/Appropriate Instruction



Universal screening is the process by which all students are assessed in order to measure current levels of achievement and progress and to identify individual student needs in a variety of areas—academic, language, and health. (See the flowchart on the following page.) All students, including new students and transfer students, are screened for current levels of performance in academics, vision, hearing, language proficiency, general health, social and behavioral health, and socioeconomic status. An array of methods and instruments are used, including the results of state’s standards-based assessments, language proficiency assessments, informal classroom-based assessments, short-cycle assessments, parent surveys, and observations. Each school district sets up a system of procedures for universal screening of students in the individual schools within its boundaries. Care must be given to **ensure that any and all tests used are appropriate, fair, and accurate.** This does not just apply to those tests used to measure academic knowledge and skills.



Ideally, a universal screening committee in each school oversees the process and notifies parents school-wide of this process. This committee may be composed of an administrator, teachers, school counselor, school nurse, and/or other staff as needed. Screening is then done under the direction of the universal screening committee. Careful documentation of universal screening results is important for accurate identification of students’ needs.



Instruction at Tier I is predicated on appropriate, research-based instruction based on state and district standards. If the results of universal screening and/or ongoing assessments suggest that an individual student is performing below standards or exceeding standards, then a member of the screening committee needs to work with that student’s teacher to facilitate a referral to the SAT. Although screening records should be accessible to teachers and staff who work with a student, confidentiality must be safeguarded. (See FERPA: Family Educational Rights and Privacy Act, the federal law that protects the privacy of student education records.)



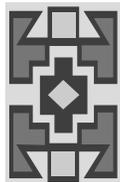
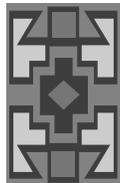
Universal screening for the purposes of driving instruction and assessing student wellness is not considered to be an individual evaluation and therefore does not require prior parent notice or consent.



Universal screening is an ongoing process and usually takes place in segments during the first months of school. For example, a class might be screened for hearing one week and vision the next. A new or transfer student would be screened based on a review of his or her cumulative folder by the receiving administrator or teacher. Title I schools screen students to determine their eligibility participation in school-targeted literacy programs.

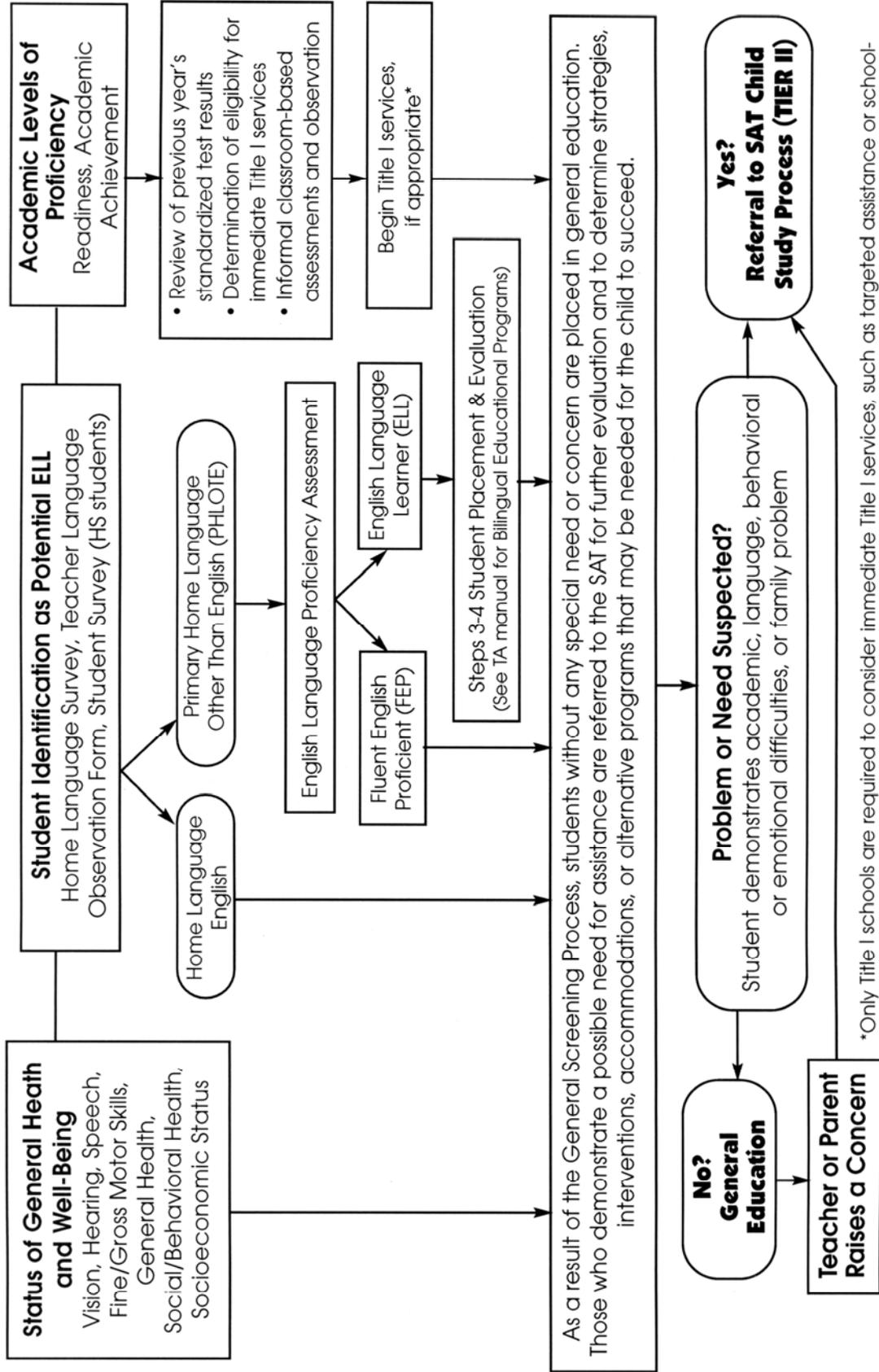


NOTES: 1) One of the functions of universal screening is to identify students who may need assistance with the English language in order to benefit from their education. This is most accurately measured when students are screened in English. 2) A preschool student that comes to the school’s attention is referred to the district’s Child Find Office for screening.



Addressing Student Individual Needs

TIER I: Universal Screening



*Only Title I schools are required to consider immediate Title I services, such as targeted assistance or school-wide services. If you are a Title I school, general screening includes a review of school-determined criteria.



Tier II: SAT Child Study Process

The members of the SAT are responsible for addressing a diverse spectrum of needs among the student population. The eight steps described below can help the team efficiently and appropriately identify needs, and then effectively tackle them.



Informal Problem Solving



Sometimes a behavioral or academic concern is raised that may not have come about from the general screening process. Before the teacher makes a referral to the SAT, the teacher needs to contact the parents to share concerns and get the parents' perception of the situation. Working together, the parents and the teacher can then develop some informal or preliminary interventions. This informal first step facilitates open communication and problem solving. (Using the word "challenge" instead of "problem" with the parents may foster a more positive approach to change.) The teacher and parent may agree to try one or more strategies to help the student overcome the challenge before requesting help from the SAT. Of course, if a student has an obvious disability or a serious and urgent problem, the teacher should refer him or her to the SAT immediately.



Step 1: Referral to the SAT (See *Tier II Flowchart*, page 32)



If the teacher and parent are unable to find a solution, then the teacher or the parent via the teacher refers the student to the SAT. (A sample *SAT Referral Packet* appears on pages 55–60.) The SAT chairperson reviews the request and schedules the student's SAT meeting. He or she contacts the parents and staff who need to be involved in this student's case to arrange a compatible meeting time. The school should make every effort to schedule the meeting so that parents can attend. (A *Parent Notice/Invitation* appears on page 61.) This form also has a space for the parents to give permission for further testing, as well as to indicate their desire to attend the meeting.) The SAT chairperson ensures that parents, teachers, and other SAT members are notified of the meeting (date, time, and place).



Step 2: Gathering Data and Information



Prior to the initial meeting, the SAT chairperson collects all relevant information, including the SAT Referral Packet, student work samples, parent contacts, results of general screening, student attendance, student performance reports and other data available in the student's cumulative records, as well as any observations or interviews done. (A sample *Student Observation Form* appears on pages 62–63.)





Step 3: Introductions and Agenda

The team decides who will serve as facilitator and recorder. After all introductions are made, the facilitator announces a target time period for the meeting and a brief agenda. The amount of time is determined on a case-by-case basis.



Step 4: Summary Statement of the Referring Teacher and Parent

The referring teacher describes the student and summarizes the student's strengths. The teacher also describes the circumstances that led to this referral, identifying the area of concern that led to the SAT referral: academic, behavior, language/fluency, social/emotional, health, or other. The teacher describes the challenge in measurable terms, and states the desired outcomes. For example, "Ricky is always late and disruptive" should be rephrased as "According to attendance records, 12 recorded tardies appear for Ricky in the last month. Ricky's arrival once class has begun disrupts the group and causes him to miss part of the lesson." (When worded this way, the behavior is measurably defined and the late arrival, not Ricky the person, causes the disruption.)



At this time, the teacher and parent are also encouraged to share with the team any interventions that have been tried. Then the team may ask clarifying questions or accept other additional information that the referring teacher or parent may bring to the meeting. (Example: information from the parents about their child's history and development)



Step 5: Sort and Sift of Records and Relevant Information

The next step is for the SAT to sort and sift the available data. This means the team performs a systematic scanning and organizing of data to organize and consider those nuggets most likely to contribute to **insight about the student**. The team reviews any existing information about the student that may be relevant. This may include academic records, results of general screenings, work samples, medical history, and so on. Through discussion and review, the team sorts and sifts the available information.



In this process, the SAT must pay particular attention to the following elements and **their impact on the student's learning**: (1) Culture and Acculturation, (2) English Language Proficiency, (3) Socioeconomic Status, (4) Mental/Behavioral Health, (5) Possible Lack of Instruction, and (6) Learning Style, Teaching Methods, Teaching Styles. These six elements are explained and discussed in further detail below.





(1) Culture and Acculturation

The culture (that is, ethnicity, religion, gender, and socioeconomic background in which a person grows and develops) has an important impact on learning, learning styles, and an individual’s aspirations. Therefore, the SAT needs to understand and look at the student’s culture with attention to beliefs, values, styles, and practices that may influence the student’s learning and behavior at school. In particular, the SAT should identify those aspects of the student’s culture that may enhance the student’s learning.



The SAT also needs to consider the level of the student’s acculturation.

Acculturation means the gradual process of adaptation to a new cultural environment. Four levels of acculturation are generally recognized:



- ▶ **Bicultural**—Integration with a new culture without the deterioration, or loss, of the cultural norms, languages, and beliefs of the first culture
- ▶ **Assimilated**—Rejection of the original culture and has full acceptance of the new culture in which one now lives and operates
- ▶ **Traditionalists**—Exposure to and rejection of the second culture, which leads one to cling to the original culture’s values and beliefs
- ▶ **Marginalists**—Rejection of both the new and original cultures’ norms and belief systems, thereby ostracizing oneself from society



Many students who are referred to the SAT for the purposes of conducting the child study process are experiencing the process of acculturation. It is imperative that during the child study process, the SAT carefully analyzes where the student is in his or her adaptation to the new cultural environment. This is especially important because students experiencing acculturation or acculturative stress may exhibit behaviors that are also indicative of a disability. According to Collier (2004), these may include the following behaviors:



- Distractibility—often confused with ADD. Can be addressed with intense transition and adaptation assistance
- Response fatigue—cyclical process where one becomes overwhelmed by environmental stimuli and shuts down
- Withdrawal—when one withdraws from situations where responses are expected of him or her
- Silence or not responding—when one spends a lot of energy listening, observing, and processing what is occurring prior to responding to a situation or interaction





- Code-switching—insertion of sounds, words, syntax, etc. from existing language or communication process into new language or communication process
- Confusion in locus of control—one’s perception of where something or events are controlled as determined internally by one’s own behavior vs. fate, luck, or external circumstances



It is the function and the responsibility of the SAT to carefully analyze the information about the student in order to be able to distinguish between behaviors that are indicative of acculturation versus behaviors that are indicative of a disability.



For more **information on the process of acculturation**, please see:

Comprehensive Handbook of Multicultural School Psychology
 Craig Frisby (Editor), Cecil R. Reynolds (Editor), August 2005
 ISBN: 978-0-471-26615-0



(2) English Language Proficiency



The SAT must consider the student’s level of English language proficiency during the child study process. Many students who enter public schools in New Mexico are considered circumstantial bilinguals. That is, they must learn a second language (L₂) in order to function within the society and community in which they find themselves. It is not a matter of choosing to learn a second language; it is a necessity. With this in mind, it is important to remember that English Language Learners (ELLs) are many times put in a position where they have to learn L₂ long before their primary language (L₁) is fully developed. This makes the acquisition of both languages much more difficult for a student under these circumstances.



Recent research in the area of language development indicates that students acquire social language in L₂, also referred to as Basic Interpersonal Communication Skills (BICS), within 2–3 years. This basic social language enables students to interact with his or her peers in a variety of social settings, including the school cafeteria, the school playground, and in and around the community. A student who has mastered social language, or BICS, may appear to have mastered his or her second language because of his or her ability to interact with peers **informally** in a variety of settings, including in the classroom. **However, the mastery or acquisition of social language is not sufficient for a student to be able to access and understand curriculum and information presented in a formal classroom setting.** Research also indicates that a student requires 5–7 years to acquire a higher level of language development referred to as Cognitive Academic Language Proficiency (CALP). This is the level of language





proficiency that a student requires in order to benefit from classroom instruction. With this in mind, it is important that SAT members and teachers do not assume that because a student is able to engage in social conversation that he or she has mastered the second language. It is also important to consider the student’s level of communication and interaction during more formal classroom settings, as it may differ significantly from a student’s level of interaction and communication within social settings.



Despite similarities in characteristics, a student identified as ELL is not necessarily a student with a disability. It is important that the SAT include members of school staff who are able to distinguish between limited English proficiency and language disorder to determine whether the student’s academic difficulties are attributed to language difference or language disorder.



For more **information on English language proficiency**, please refer to the following references:



“Distinguishing language differences from language disorders in linguistically and culturally diverse students,” by Roseberry–McKibbin, *Educating Exceptional Children* (10th ed.) (Dushkin Publishing Group, Guilford, CT, 1998). (Reprinted with permission from original article in *National Association of Multicultural Education*, 2 (4), pages 23–25.)



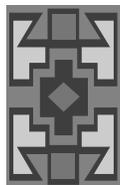
The Bilingual Special Education Interface, Third Edition, Chapters 10 and 12, by Leonard M. Baca and Hermes T. Cervantes (Prentice Hall, New Jersey, 1998)



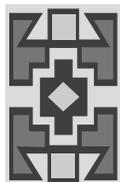
Technical Assistance Manual for Implementing Bilingual Education and Title III Programs. (2003). New Mexico State Department of Education.



(3) Socioeconomic Status (SES)



Research shows that SES is associated with a wide array of health, cognitive, emotional, educational, and occupational outcomes in children, with effects sometimes beginning prior to birth and continuing into adulthood. Three levels of SES are recognized in society: poverty, middle–class, and wealthy. School and work environments are based largely upon the middle class rules and norms. Therefore, students from SES backgrounds other than the middle class may have difficulty functioning within the school setting. It is generally understood that students living in poverty are at greatest risk for having low school achievement and dropping out. Payne (1996) defines poverty as “the extent to which an individual does without resources,” and identifies the following as resources:





- Financial—access to money or other finances
- Emotional—mental stamina one requires to withstand difficult situations
- Mental—the ability to process information and use it daily
- Spiritual—belief that help can or will come from a higher power
- Physical—a healthy, strong body that is capable and mobile
- Support Systems—family and/or friends one can turn to when in need
- Relationships/Role Models—access to an individual who models nurturing and appropriate behavior
- Knowledge of Hidden Rules—unspoken, salient understandings that allow an individual to recognize another individual as either belonging or not belonging within the same SES class



Students living in poverty also fall within one of two categories: generational poverty or situational poverty. Students living in generational poverty come from families who have lived in poverty for at least two generations. Students who are living in generational poverty have a worldview that has been shaped and influenced by the experiences of their parents and grandparents and are typically surrounded by others who are also living in generational poverty. Students living in situational poverty have experienced some life event (loss of parent, loss of parent’s job, divorce, etc.) that led to their current circumstances.



For students who are referred to the SAT and who may be living in poverty, the SAT members must carefully consider and analyze the circumstances surrounding the family unit in order to determine the impact that they may have on the student’s learning. For example, a student experiencing situational poverty due to the unexpected death of a parent may have difficulties in the classroom setting that are attributed to the current circumstance as opposed to a learning deficit. Or, a student living in generational poverty may view education as valuable, but not necessarily a priority in comparison to other issues that the family unit may deem more critical or appropriate. The family, therefore, may not recognize that the child’s classroom performance will potentially impact his or her future.



It is important to note that not only students living in poverty lack resources. Students who come from middle class or wealthy backgrounds may not have access to certain resources, which may impact their school performance as well. For example, a student from a middle class background may come home to an empty house because both parents work (from necessity or by choice). Therefore, the





student has no one to assist him or her with ensuring that homework is complete and correct prior to turning it in the next day. This circumstance is not due to a learning deficit, but rather to the student’s lack of resources at home. In another situation, a student moves from a school that primarily serves students living in poverty to a school in a middle–class or wealthy community, and experiences difficulties adjusting to different expectations within the classroom setting. In addition, the student may experience difficulty adjusting to and following the hidden rules of the school and community.



For more information on **socioeconomic status, particularly the impact of poverty on learning**, please refer to the following resources:



- *A Framework for Understanding Poverty*, by Ruby Payne, Ph.D. (aha! Process, Inc. Highlands, TX, 1996). See Chapter 7 for a collection of appropriate interventions.
- *NCCP: National Center for Children in Poverty*. www.nccp.org



(4) Mental and Behavioral Health



Students who experience behavioral and/or mental health challenges may be predisposed to becoming at–risk students if the problems are not identified and effective interventions do not occur. Teachers and parents are often the first persons to observe students who are experiencing these kinds of problems. Research also shows that students will typically turn to a teacher to share a personal problem. Therefore, the SAT needs to develop knowledge around school behavioral and/or mental health issues, and learn to ask parents and teachers clarifying questions so the SAT can recognize students in possible need of mental health interventions. Specifically, the SAT needs to have a general understanding of the signs and symptoms following Mental/Behavioral Health disorders:



- Post–Traumatic Stress Disorder (PTSD)
- Attachment Disorder
- Disruptive Behavior (AD/HD, Conduct)
- Eating Disorders (Anorexia, Bulimia)
- Depression
- Anxiety Disorders (Separation, Generalized, School Phobia)
- Adjustment Disorders
- Substance Abuse





When examining behavioral and/or mental health issues, the team needs to consider 1) whether the student exhibits problematic behaviors more than expected for his or her chronological age or developmental level; and, 2) whether the behavior interferes with the student’s learning and safety or the learning and safety of others.



Finally, students have often been informally diagnosed as either Attention Deficit Disorder (ADD) or Attention Deficit Hyperactivity Disorder (ADHD) as a result of demonstrated behavior problems. It is important to note that both conditions must be diagnosed by a trained mental health professional or physician. Further, behavior problems typically co-exist with other mental health conditions that may potentially be overlooked and ignored if the focus is only placed upon the student’s difficulty with maintaining attention and appropriate behavior.



For more information and training on **school behavioral and mental health issues**, please contact the New Mexico Department of Health, School Health Unit, (505) 841-5881.



(5) Possible Lack of Instruction



The Individuals with Disabilities Education Act (IDEA) requires that students not be classified as disabled if their academic difficulties are primarily due to “lack of instruction.” Only through a full and thorough examination of the student’s academic history, performance, and other circumstances, in addition to a classroom observation, can one fully assess this condition. So, how might the SAT assess this? For the purposes of Tier II: The SAT Child Study Process, the team needs to explore the following questions:



- Has the student had no prior schooling?
- Has the student experienced extended periods of no schooling (frequent moves, absences, illness)?
- Has the student not received appropriate instruction that matches student needs, readiness, or learning style?
- Has the student been uncooperative with the classroom teacher?

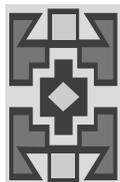


(6) Learning Style, Teaching Methods, and Teaching Styles



Learning style is the method by which an individual perceives, acquires, and processes information. Typically, the different styles are classified by how the student acquires and processes information.





Methods of Acquiring

- Visual—prefers written word, pictures, charts
- Verbal/Auditory—prefers spoken word
- Tactile/Kinesthetic—prefers “hands on”
- Combination—Ex: Visual/Verbal

Methods of Processing

- Active—does something physical with the information
- Reflective—prefers analysis, observation, and thinking in his or her head

By contrast, *teaching methods* are the variety of instructional approaches a teacher uses to deliver information. The list is infinite, but common teaching methods include these:

- Lecture
- Lecture with discussion
- Small group
- Large group
- Individual
- Quiet, independent study
- Cooperative or collaborative learning
- Center-based
- Demonstration
- Discovery-based
- Problem-based

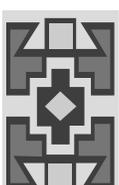


In addition, each teacher has his or her own *teaching style* that comes into play in the teaching-learning environment. It is the manner in which a teacher generally manages instruction and the classroom environment. It reflects the teacher’s personality and/or the style that a teacher may choose to use to depending upon student need.

Five typical teaching styles are as follows:

Expert—The environment and/or or lesson is teacher-centered, highly, structured and controlled. The teacher presents the content and students receive it, but they may not be very actively involved.

Model/Coach—The teacher is very structured and the classroom is still teacher-centered. However, the environment and/or lesson include demonstration and the teacher encourages independence, participation, and performance in students.



Tolerant/Facilitator —The teacher may appear to be more permissive and more social interaction exists in the classroom. The classroom may appear loose and unstructured in how lessons proceed and how students interact. However, a closer look *might* also reveal that, despite its loose appearance, the class is student-centered, students are learning independently and collaborating, and the teacher serves as more of a facilitator.

Relaxed—The teacher may not have clear expectations for behavior and/or learning or may be still learning how to set them. The class may not appear to be either teacher- or student- centered.

Overlapping—The teacher’s style appears flexible or inconsistent. He or she may utilize two or more styles in an attempt to match student-learning style, or to keep students engaged and controlled.

When trying to discern the teacher’s style, consider the following questions:

- Does the teacher have clear rules and expectations?
- How much movement is tolerated in the classroom?
- How much talking or interaction among students is encouraged?
- How does the teacher spend most of his or her time?
- How does the teacher interact or “work the room” with students during a lesson?
- Does the teacher use praise or feedback? If so, how?
- How does the teacher respond to diverse ways of student learning?
- How do the students respond to the teacher and the lesson?
- How is the classroom furniture arranged?

While it might be challenging to look at how learning styles, teaching methods, and teaching styles intersect and/or converge for a particular student, it is crucial that the SAT contemplate them together to see how they might conflict or align. A classroom observation may be necessary in order to complete this analysis. The observation form on pages 62–63 guides the observer to note both the student’s and the teacher’s activities in the classroom. This will provide valuable information for understanding the nature of the student’s problem and will assist the SAT and the teacher with planning for the student’s individual learning needs.

Step 6: SAT Summary, Synthesis of Information

This is the pivotal step for the SAT. In a process similar to piecing together a puzzle, the SAT now examines and attempts to fit together the information fragments until patterns and some kind of picture about the student begin to emerge.



Using the *SAT Summary Form* provided on pages 64–68, or other means of documenting the team’s considerations, the recorder fills in the information as the process of synthesizing (that is, relating knowledge from of a variety of sources) and discussing the information about the student progresses. Again, the team needs to keep in mind and make a determination about **the impact of each element on the student’s learning**. In areas where the student does not demonstrate a challenge, there might be a positive impact on learning. This, too, should be noted. Any strengths that emerge may be useful in designing a plan to help him or her succeed in overcoming the challenging area(s).



Step 7: SAT Summary, Next Steps



The team, which includes the parent, discusses its insights and builds one or more hypotheses about why the student is struggling. Any hypothesis must be able to be stated in measurable terms. Avoid defining challenges with accusatory or judgmental words. When the team has agreed on the likely or probable factor or factors that are contributing to the challenge, the recorder documents the team’s **Insights and/or Hypothesis** on the *SAT Summary Form*. At this point, the team is ready to map out **Next Steps**. The SAT then makes the most appropriate of the following three decisions:



1. The student appears to need no intervention at this time.
No action is required or plan to follow up on a specified date.
2. The student’s challenges suggest that a SAT Intervention Plan is warranted.
3. Existing data is insufficient for a complete determination.
More information is needed.



In the case of decision #3, the team needs to keep in mind that the quality of the "information harvest" from Step 5 affects whether or not the team has enough information to adequately complete its study of the student. If the team feels that there is insufficient existing data, it may want to do further screening or testing. Remember that *parent consent is required before taking any action involving a student that is not taken for all students*. In other words, the team must get consent in order to do additional tests, screenings, observations, or assessments. If the team does not already have permission on the parent notice/invitation form, the parent can give it during the meeting. If the parents are not present, the team must send the parents its request for their consent and signature. After new or additional information is obtained, the SAT meets again and begins the child study process once more at Step 2.





Step 8: The SAT Intervention Plan

Interventions are actions taken to enhance student strengths and limit or remove obstacles that are blocking a student’s path to learning. Interventions at the Tier II level may include targeted, individual or small-group instruction in a specific area of need that is provided in addition to the quality instruction already received in Tier I. This may involve changing some aspect of the presentation of lessons, the physical environment, the materials used, or instruction. Or it may involve providing adaptations for the student that enable him or her to function more effectively within the regular classroom, and/or provide attendance strategies for the student who is habitually absent or truant. (Examples of Interventions are given in Part 4, on pages 36–47.)



Once the SAT has built a hypothesis about what is causing the student to struggle, the entire team, including the parent, works together to brainstorm ideas for how to lessen the impact of or remove the obstacle. The facilitator asks the team for possible strategies that could be implemented in the individual classroom, the school environment, at home, or in the community. The recorder should note all suggestions—no judgments are made at this time.



Evaluating and Choosing the Most Appropriate Interventions

At this stage, the team evaluates each suggestion and selects the actions that have the most potential for success. One way to assess the ideas is through questioning.



- Which strategy is least intrusive, natural, and feasible?
- Does this strategy directly address the challenge?
- Is it a reasonable expectation of the person/people implementing it?
- Is it positive, not punitive?
- Does it build in some way on the student’s strengths?
- Would it have any positive or negative effect on other students?
- What data collection method will the SAT use to measure student response?
- How can staff who are implementing the plan be supported?
- Which interventions are research-based and high quality?



Based on the answers to questions such as those suggested, the group can decide to eliminate an idea or to “star” it for further consideration. Then, from among the “starred” ideas, the team chooses one or more strategies that have the best chance of being effective for the student and are the least intrusive to others.





If none of the suggestions seem appropriate, the team needs to repeat the brainstorming process to generate additional possible strategies.



Completing the *SAT Intervention Plan Form*

When the team has selected one or more appropriate interventions or accommodations, the group identifies and documents its decisions about how they will be carried out:



- Who is responsible for implementing each intervention?
- What, if any, special materials, resources, or training are needed?
- What time period is reasonable for implementation of the intervention?
- What time period is reasonable for the intervention to have an observable effect?
- How will the student’s response to the intervention be measured?
- Who will monitor the student’s progress?



The recorder completes the written plan, such as the *SAT Intervention Plan* form on page 69, to document the accommodations, who is responsible, the time period, the desired outcome, and how the success of the intervention will be measured. A highly recommended final step is to have each team member sign or initial the form to document his or her presence and participation.



Ending the SAT Meeting



The facilitator ends the meeting by briefly restating what has been decided, and delineating responsibilities for implementing and tracking the progress of the interventions. (The *SAT Intervention Progress Report and Follow-Up Form* is supplied on page 70.) If other actions need be taken, such as additional tests requested or contacting a specialist, the facilitator identifies the individual(s) responsible for following through. He or she should then thank all the members for their participation and ask the group to reconvene **at a specified time**. An actual date is best, but identify at least a narrow range (e.g. “in 9–18 weeks” or “at the end of the grading period”). Vague phrases such as “at a later date” or “as needed” do not convey true commitment to follow up on a student and are not an appropriate way to design an intervention plan.



Follow-Up



The SAT chairperson is responsible for following up on the actions and assignments agreed upon during the meeting. This may involve “checking in” with those who have been entrusted with implementing interventions, arranging for materials or training, or working with an outside specialist or community resource. This person also collects and safeguards the confidentiality of all documents related to the case.





Finally, he or she is responsible for contacting parents and other team members to schedule the follow-up meeting.



The purpose of the follow-up meeting is primarily to review the progress and effectiveness of the actions taken and the response to interventions implemented (progress monitoring). When the follow-up meeting is held, the facilitator should begin by reviewing the *SAT Summary* completed at the initial meeting. The team should discuss what happened (and did not happen) and each team member should be encouraged to give his or her input and observations. Together, the team evaluates the actions taken previously and makes recommendations for a revised SAT Intervention Plan or any other necessary next steps based on the effectiveness of the plan. If the response to intervention is deemed effective, the student may stay with a SAT Intervention Plan for an extended period of time. See Tier II Flowchart: Step 7.) The *SAT Intervention Progress Report and Follow-Up Form* can be used for this purpose.



SAT Determination of Further Referral



As a function of general education, the SAT is responsible for addressing concerns that arise about individual students in the universal screening process and through referral from parents or staff. The concern may be academic, behavioral, language-based, physical, social, or emotional. The team is entrusted with making decisions that are not only appropriate for the student, but also adhere to the law, which requires that students be educated to the maximum extent possible with peers in the regular education setting. **This means that if an obstacle *can* be overcome by providing accommodations within the regular classroom, it should be done.** When handled with knowledge and care, the intervention process of implementing accommodations designed to help the student succeed within the regular education setting has been effective in decreasing unnecessary or inappropriate referrals to special education and other programs. On the other hand, **the SAT must be careful not to unduly delay referring a student who may have an obvious disability or be in obvious crisis to the multidisciplinary evaluation process (Tier III) or 504 Plan Accommodation.**



Clearly, the SAT shoulders the responsibility for making critical educational decisions. The team should carefully consider each case individually. Is the concern of a nature whereby it is reasonable to expect that it can be solved through minor intervention within the regular education setting (and within a reasonable length of time)? Or, does the concern call for intervention from *outside* the regular education setting? **It is important to remember that the SAT is a general education responsibility and**





not part of special education or other programs. For those students whose SAT Intervention Plan has been unsuccessful and/or whose challenges fall outside the range of general education, the SAT can pursue several avenues in terms of further referral.



The avenues of further referral include



- ▶ Title I
- ▶ Indian Education
- ▶ Bilingual Education
- ▶ Multidisciplinary Evaluation to determine eligibility for Special Education services
- ▶ 504 Accommodation (See pages 52–54 and 73–74.)
- ▶ Community Agencies
- ▶ Other programs and supports that the local district may provide



How *does* the SAT decide the course of action that is most appropriate for a student? First, some cases will be obvious. Perhaps the student is clearly disabled as defined by the IDEA, or has a disabling condition that limits one or more life activities, long or short term. Perhaps the student is low performing on district short-cycle assessments, or the New Mexico Standards-Based Assessments (NMSBA) and qualifies for the Title I Targeted Program. Or, perhaps the student’s English proficiency is not sufficiently developed enough to function in an English-only classroom. Cases such as these should be referred directly to the appropriate program. In other cases, the SAT may ask a specialist, such as a speech and language pathologist or special education teacher to join the team on a case-by-case basis and help determine the most appropriate intervention or action for a student. **Finally, if the SAT determines that the student has been unresponsive to a first or second round of interventions (or a round of more intensive and frequent interventions), the team needs to carefully consider whether another round of different or continuing interventions would assist the student, or whether the student needs to be referred for a multidisciplinary evaluation or to an alternative program that may better meet his or her needs.**

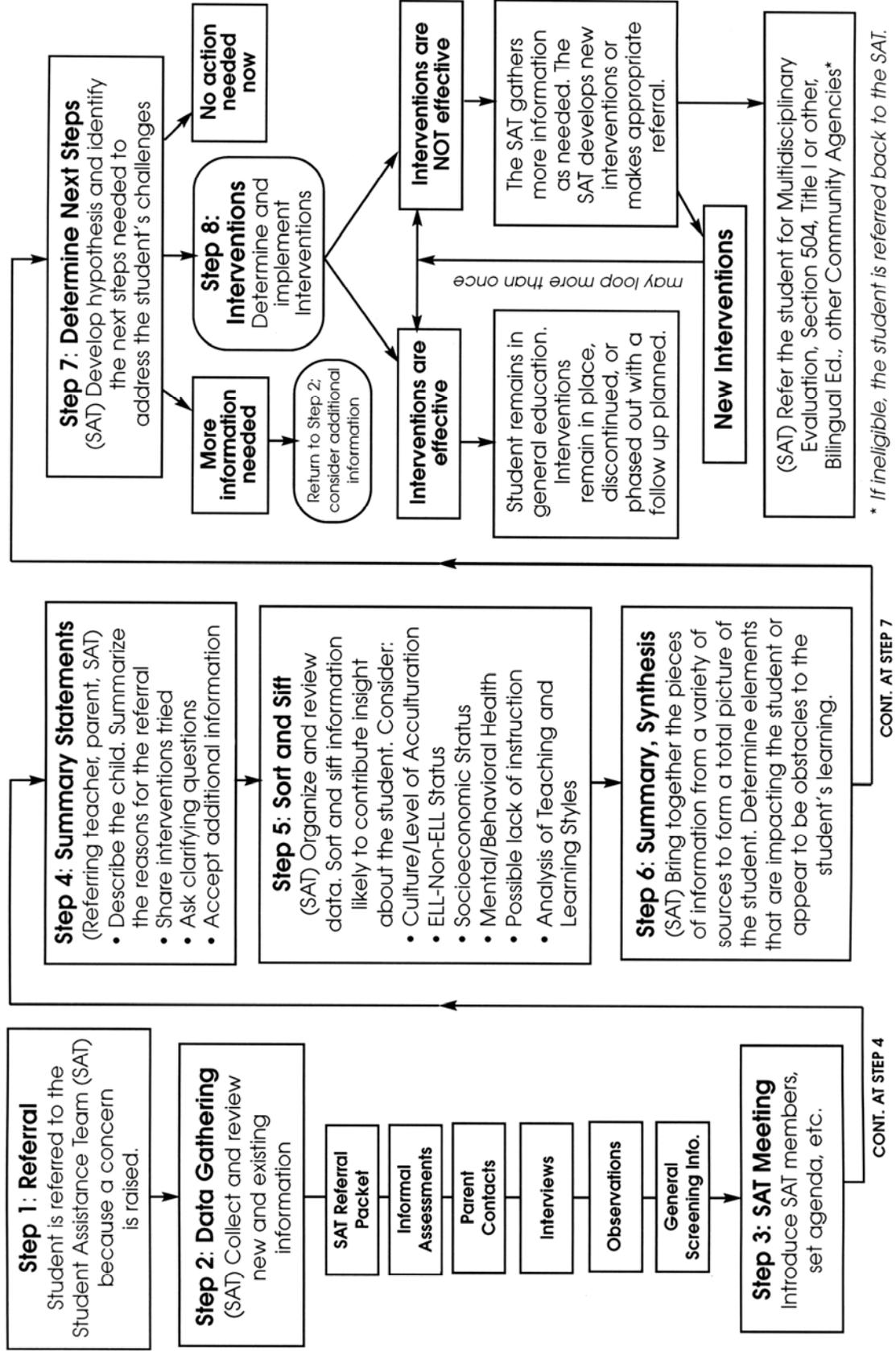


Once a student is formally referred to another program, a new referral process is begun. At that time, the SAT provides documentation from the general screening and its history with the student for use by the new program. **If the student is found to be ineligible for other programs, he or she must be referred back to the SAT. The student should not be left without any intervention process or program.**



Addressing Student Individual Needs

TIER II: The Child Study Process





Tier III: The Multidisciplinary Evaluation Process/Special Education



When a student is referred to the SAT because a concern is raised, the team members are responsible for collecting information about the student and forming a hypothesis about the possible factors contributing to the student’s difficulties. The SAT first considers specific factors in three broad categories: general health and well-being, language proficiency, and academic achievement. These factors are assessed for all students through the general screening process at Tier I. Based on its hypothesis, the SAT then determines how the student’s needs may best be met through Tier II interventions, which are designed to remove obstacles that may be in the way of the child’s path to learning. If, after implementing carefully designed interventions used within the regular education setting, the SAT determines that the student has not demonstrated a significant and positive response to intervention or that the student’s needs fall outside the range of general education, the SAT has several avenues of further referral. These program options include Title I, Indian Education, Bilingual Education, Multidisciplinary Evaluation for Special Education, Section 504 Accommodations, community agencies, or other programs and supports. When considering referring a student for a Multidisciplinary Evaluation, the SAT must keep in mind that **the purpose of a Multidisciplinary Evaluation is to determine eligibility and possible need for special education and related services. A referral for this type of evaluation should only be made in cases where there is a crisis, obvious evidence of an exceptionality*, or when interventions have not yielded a significant positive response from the student. The Multidisciplinary Evaluation Process is NOT a substitute for careful analysis and effort by the SAT to address the concerns and the student’s needs.**

**To receive special education or related services, the child must meet the eligibility requirements as having a disability as defined by the IDEA or as gifted under New Mexico regulations. (NOTE: Eligibility cannot be based solely on the determination that the student has limited English proficiency or has had lack of appropriate instruction in math or reading.)*

When a student is referred for a Multidisciplinary Evaluation, the first step is formal assessment and evaluation. (NOTE: Assessments given outside the scope of general screening or state-or district-wide assessment given to all students require prior



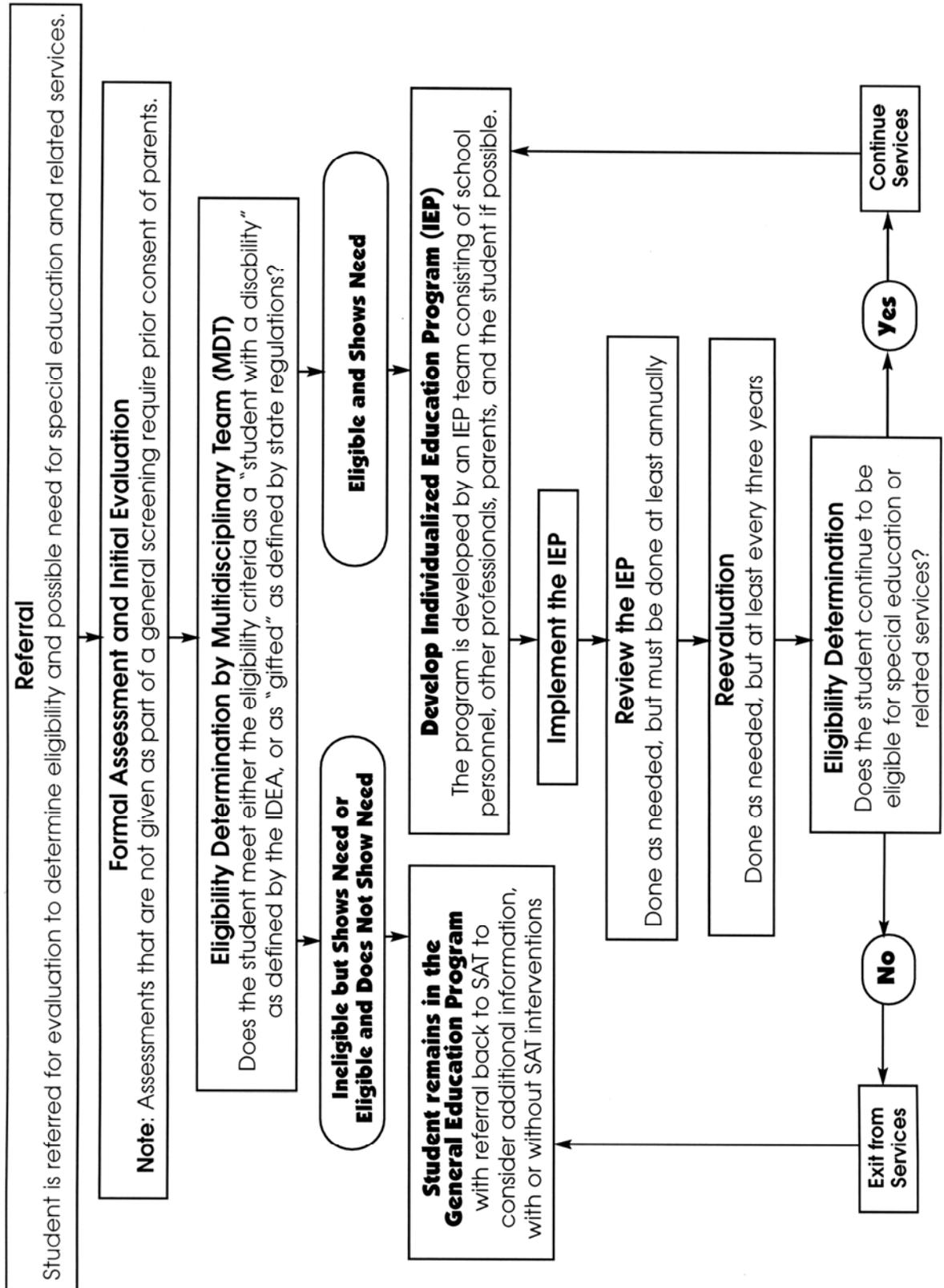
parent notice and consent.) The Multidisciplinary Team (MDT), which is a qualified group of professionals, including the parent, uses this information to determine the student’s eligibility for special education and related services under the criteria of one or more of the 13 categories of disabilities as defined by the Individuals with Disabilities Education Act (IDEA). Based on all information gathered, the team makes its determination of eligibility. The three possible options are as follows:

- ▶ The student is ineligible for special education or related services, but shows need. In this case, the student is referred back to the SAT, which takes into consideration new information and readdresses the student’s needs. The SAT may need to revise its hypothesis, redesign interventions that are more appropriate and/or pursue avenues of further referral such as Title I, Indian Education, Bilingual Education, Section 504 Accommodation (See pages 52–54 and 73–74), community agencies, or other programs and supports.
- ▶ The student is eligible, but does not show need for special education and related services. In other words, the student may have a qualified exceptionality, but the Multidisciplinary Team (MDT) that makes the eligibility determination finds that the student’s disability *does not* affect his or her ability to learn or require specialized instruction. If the MDT determines that a student is ineligible for special education services, the student remains in the general education program and is referred back to the SAT for further assistance.
- ▶ The student is eligible and shows need for special education and related services. In this case, the SAT’s role in the student’s program ends. Instead, an IEP team (administrator, teachers, specialists, parents) convenes and designs a master plan for the student known as an Individualized Education Program (IEP) to provide what he or she needs to benefit from instruction. The IEP is then implemented, and the student’s IEP team reviews it as needed, but it must be reviewed at least annually. A reevaluation must be done at least every three years to determine continued eligibility for special education, unless the parents and the school agree that a reevaluation is not necessary under IDEA provisions.



Addressing Student Individual Needs

TIER III: The Multidisciplinary Evaluation Process





SAT Interventions



As a general education support group, one of the primary functions of the SAT is to design and implement academic and behavioral interventions for students experiencing difficulties in the regular education setting. Possible interventions are as numerous and diverse as the students themselves.



The most successful interventions will be those that

- ▶ address the student’s specific individual needs and strengths
- ▶ have been based on teacher and parent input
- ▶ consider variables other than student performance (environment, personality conflict, health, teaching styles, cultural differences, etc.)
- ▶ are objective- or data-based so that effectiveness can be measured
- ▶ draw upon the expertise of educational specialists and resources
- ▶ are least intrusive, most natural, and most effective
- ▶ support the regular educator in implementing the interventions



It is beyond the scope of this general overview guide of the SAT and the child study process to address all the possible areas of concern and interventions. The pages that follow are intended to offer sample accommodations in seven major student areas of need and some teacher strategies for accommodation in the categories of presentation, physical environment, materials, and instruction. School districts may have other resources to support SATs in their efforts including school-wide literacy programs and community services.



There is also a jackpot of free ideas and on-line tools to assist school staff in designing academic and behavioral interventions available at www.interventioncentral.org and www.disciplinehelp.com Educators and the SAT may find these websites particularly helpful for locating effective teaching strategies and ideas for intervention and/or remediation plans for students who did not achieve progress with the first round of interventions and need a revised plan. In addition, the SAT may wish to consult the following resource:



- *Pre-Referral Intervention Manual (PRIM)*, by Stephen B. McCarney, Hawthorne Educational Services, 1993. ISBN# 1878372114



NOTE: The terms *he* and *she* are used for simplicity; the statements apply to either gender.



Sample Accommodations in Seven Major Problem Areas



Attention Problems • Inability to Focus

Some accommodations to consider:

- ▶ It is easier for students to attend to learning activities when they are fortified with the energy food provides. Make sure students have access to school breakfast and lunch programs, as well as healthy snacks.
- ▶ Use a beach ball to focus students' attention as you speak. After you say a key point you want students to remember, toss the beach ball to a student. When the student catches the ball, he has to repeat what you just said. Since students do not know who you will toss the ball to, attention stays focused.
- ▶ Develop a set of silent signals and use them to signal the student that a certain type of information is coming. For example, touching your nose with your fingertip may mean "I am going to give directions next."
- ▶ Whenever possible, accompany oral explanations with visual back up. For example, draw diagrams or write key words on the board as you discuss a topic or process.
- ▶ When students are to be engaged in independent work, set a timer for the amount of time you expect they should be able to complete the task. If necessary, break longer tasks into a series of shorter sub-tasks and time them separately.

Some Specific "What Ifs":

What if a student needs oral directions repeated frequently?

- ☺ Appoint a "listening buddy" for these students. If students need something repeated, they just ask their listening buddy.

What if a student has trouble with visual memory?

- ☺ Give visual clues, such as showing part of a word or picture, and support it with a verbal hint. For example, if you were studying the water cycle, say "Yesterday we were learning about something that happens in nature." Then you could show a picture of a cloud (or draw it) and/or write W_ _ _ _ C_ _ _ _ .
- ☺ Let the student use highlighter tape or brightly colored stick-on arrows to focus her attention to specific parts of text or illustrations. (Both are removable without damaging materials and are reusable and available commercially.) When using overhead transparencies or charts, use a pointer or light pen.



Sample Accommodations in Seven Major Problem Areas



Completing Assignments • Homework

Some accommodations to consider:

- ▶ First, make certain that the material is at the student's independent level and that he has the skills to complete it successfully. If not, adjust the material so that the student can "easily" complete it successfully. If the problem is not a skill deficit, but a performance deficit (he *can*, but *does not*, complete the work), he may simply need more time than you are allowing.
- ▶ If the student won't even try to do the work, she may feel intimidated or overwhelmed by the task. Begin by requiring that the student do only part of the task, such as every third question or math problem. Praise or grade her as if she did the whole thing. Then, gradually increase the requirement. *Note: The object is not to push the student until she can do every problem; it is to reach the optimum she can do and still feel successful without crossing over into frustration.*
- ▶ Provide an assignment sheet that breaks down the total assignment or homework into sections. Have the student focus on one section at a time. Have him highlight or check off each section as he completes it.

Some Specific "What Ifs":

What if a student just doesn't seem motivated?

- ☺ She may respond to positive reinforcement, especially if it is a "trade" (15 minutes of focused work for 15 minutes of computer time).
- ☺ Do something unexpected—ask for his help. Say, "It seems that some students think this assignment is boring. What would *you* do to perk it up?"

What if the student never seems to have the needed materials?

- ☺ If the student has difficulty remembering to bring school materials home or home materials back to class, provide this student with *two* complete sets of everything she needs—one for school and one for home. If that is not possible, assign a buddy (or older sibling) to check that the student has materials needed before going home each day and have a parent or sibling do the same each morning before the student leaves for school.



Sample Accommodations in Seven Major Problem Areas



Organizational Skills Deficits

Some accommodations to consider:

- ▶ Arrange the classroom so that materials, books, supplies are always in the same place. Designate a specific place to turn in assignments, get library or restroom passes, etc. Label these areas and, if necessary, color code them.
- ▶ Post a daily schedule that shows the order and times of the day's activities. Set aside an area on a bulletin board where students can check for news and information (bus schedules, lunch menu, special activities, notices, etc.).
- ▶ Pair each student with a buddy. Allow them to confer briefly before, during, and at the end of class to check that they each have all the materials they need, the assignments, and that they understand the directions
- ▶ Encourage students to use stick-on notes as reminders.
- ▶ Begin each class with a “prep” talk—say what you will be doing and what materials they will need. Allow students to gather and organize materials before you start the lesson.

Some Specific “What Ifs”:

What if a student needs help keeping track of different subjects?

- ☺ Make a chart that assigns a color for each subject, such as red for math, blue for writing, etc. Have the student organize a notebook with colored dividers and a zipper pouch with colored markers. Tell the student to color the corner of each paper she does or receives with the corresponding subject color. Then as soon as she is done with it, file it in the same color section of the notebook.
- ☺ Have the student place blank notebook paper in the front of his folder. When any homework is given that day, he is to write it down immediately and color code it by subject. At the end of the day, he checks his list and gathers the materials he needs to take home to complete the assignment.

What if the student has trouble organizing ideas?

- ☺ Teach the student how to use graphic organizers, such as webs, flowcharts, time lines, and Venn diagrams. Encourage students to design their own!



Sample Accommodations in Seven Major Problem Areas



Difficulty Following Directions

Some accommodations to consider:

- ▶ Break compound directions into separate simple statements. For example, instead of “Take out your social studies book, find the chapter on simple machines, and read the first paragraph,” break it into three separate directions, allowing time to complete one before presenting the next.
- ▶ Present directions in several forms to allow for different learning styles (verbal, written, graphic).
- ▶ Use a signal to let students know that you are about to give directions. This can be an action (such as flicking the lights), a sound (such as a bell or a clap), or a verbal cue (such as “Who is ready to “LAF”—*Listen and Follow Directions*).
- ▶ Play “Pete and Repeat.” When you give oral directions, use a different voice—that of “Pete.” Then ask who can “repeat” what you said. (With young children, you can be “Pete the Parrot.”)
- ▶ Help students focus on written directions by highlighting them. (For materials that cannot be marked on, use highlighter tape.)

Some Specific “What Ifs”:

What if a student doesn't wait until the directions are completed?

- ☺ Use yellow poster paper to make a 4x6 inch card. Hold the yellow card in your hand as you give directions. If you see a student attempting to begin before you are finished, at the end of the directions hold up the yellow card and say “false start.” Ask a different student to restate the directions. This way the student who tends to “false start” will learn to listen when you are holding the yellow card and also will hear the directions again without being singled out.

What if the student gets confused by written directions?

- ☺ Isolate and teach the “key” words used in directions (circle, match, underline).
- ☺ Work through an example or the first part of the task for or with the student.
- ☺ Read the directions aloud, rephrasing difficult words or parts as needed.



Sample Accommodations in Seven Major Problem Areas



5

Exhibiting Inappropriate Behavior

Some accommodations to consider:

- ▶ First, make sure that your expectations are clear, that the student can do what you expect (as opposed to won't), and that your rules and consequences are consistent. Note: Consequences are the natural result of an action. They can be positive or negative. Teach students that behavior is a choice, and that choice results in consequences—positive or negative. This approach empowers the student with the internal responsibility for his choices, as opposed to punishment, which is imposed externally (and has little or no effect).
- ▶ Use positively worded statements rather than negatively worded ones. Tell students what to *do* rather than what *not* to do. For example, instead of saying, “Don’t talk during the test,” say, “Remain silent during the test.”
- ▶ Teach students to use “Think First” strategies when confronted with a situation that requires a behavior choice. Young students can use the acronym “CAT”—Choose After Thinking. Teach older students to “STACK”—Stop, Think, Assess, Choose, Keep control.

Some Specific “What ifs”:

What if a student is constantly distracting himself and others?

- ☺ Divide the day into time periods or use the student’s schedule. Make multiple half-sheet copies. At the start of each day, tape a sheet to the student’s desk or notebook. At the end of each period, decide with the student how well he stayed on task for that time. (It helps to ask the student what rating he thinks he should get rather than just pronouncing your judgment.) Then, mark and initial a rating on his sheet for the period. With young students use smiley faces or stickers. You can use a number score with older students. Have the student take home the sheet each day and have it signed by a parent.

What if a student does not seem to respond to rewards?

- ☺ Try this: Instead of you picking the reward you would like to give, find out from the student what reward she would like to get. The student is more likely to be motivated to earn something she values.



Sample Accommodations in Seven Major Problem Areas



6

Immature Social & Interpersonal Skills

Some accommodations to consider:

- ▶ Assign the student a class “buddy” who is especially mature. The buddy will not only model mature, responsible class behavior, but also can assist the student with staying on task, following directions, and appropriate behavior.
- ▶ Frequently acknowledge and praise students who are demonstrating appropriate interactive behavior. Watch for any opportunity to positively acknowledge the student who is having difficulty.
- ▶ Observe if there are any individuals whom the student seems to gravitate toward or shy away from. Depending upon whether that individual encourages or discourages the desired behavior, give the student more or less opportunity to interact with him or her.
- ▶ Help students understand that acceptable behavior varies with circumstances. Teach them the difference between behavioral expectations in different settings, such as home, classroom, playground, and community. Remind them that expectations not only differ in different settings in general, but also may differ from specific adult to adult. Remind them to be constantly aware of where they are and what “rules” they are expected to follow in that setting.

Some Specific “What Ifs”:

What if a student has difficulty sharing with others?

- ☺ Give the student the job of passing out group materials, such as art supplies.
- ☺ Create a class “mascot” (such as a stuffed animal). During certain times of the day, appoint different students to “care” for it. Let students who willingly share have a turn before the student who has difficulty. This will model for her how to accept responsibility for something, have it for a while, and then return it.

What if the student is withdrawn and won't interact with others?

- ☺ Greet this student every day. Smile and say “Good Morning” using her name.
- ☺ Attempt to “read” the student’s non-verbal cues—body language, facial expressions, etc. Then ask her to validate or invalidate your observation. For example say, “You look like you may be nervous about this assignment. Am I right?” Even if she only nods, you can continue by offering help or support.



Sample Accommodations in Seven Major Problem Areas



Problems with Language Fluency

Some accommodations to consider:

SPEAKING

- ▶ Use a tape recorder to model correct speech. Have the student play back the recording to listen and to repeat the model speech.
- ▶ If the student speaks very quietly and/or is shy about speaking, let him practice playing different speaking parts with puppets.

WRITING

- ▶ Use wooden cubes to make “writer’s blocks.” Use the cubes for writing topics, adjectives, connecting words (suddenly, then...), or any other writing need. A student with “writer’s block” rolls the cube for help.
- ▶ If neatness is a problem, let the student use graph paper, writing one letter or number in each block.

LISTENING

- ▶ Tape record directions, assignments, vocabulary words, etc. for the student.
- ▶ Reduce distracting stimuli around the student. Use an auditory and/or visual signal that means “get ready to listen.”
- ▶ Play listening games, such as *Simon Says*, *Mother May I*, *Red Light–Green Light*.

MULTICULTURAL/BILINGUAL

- ▶ Provide bilingual or multicultural signs. Example: *News/ Noticias* (English/Spanish)
- ▶ Recruit tutors who can assist a student in his first language.

Some Specific “What Ifs”:

What if a student is terrified or embarrassed to speak to a group?

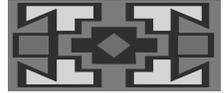
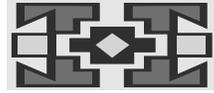
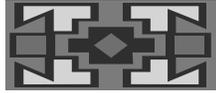
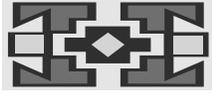
- ☺ Let the student record his presentation and play the recording instead of speaking “live.”

What if a student has trouble organizing/sequencing writing?

- ☺ Tell the student to pretend he is a reporter. (You could even make and use a “press” hat.) First, instruct him to go to the “scene” (in his mind) and take notes about the setting, characters, action, etc. Then tell him to write and answer the 5 W’s down the side of a paper—Who? What? Where? When? Why?



Sample Teacher Strategies for Accommodation



Presenting Strategies: Alternate Methods of Presenting Lessons and Materials

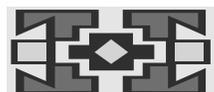
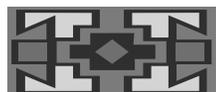
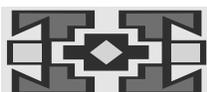
General

- ▶ Give both oral and visual instructions. (Use an overhead projector.)
- ▶ Vary how lessons are delivered (small group, videos, demonstrations, games).
- ▶ Arrange for a peer tutor to work with the student.
- ▶ Provide a photocopy of notes, vocabulary lists, essential facts, or study guides.
- ▶ Support presentations with graphic organizers, diagrams, or manipulatives.
- ▶ Segment directions. Pause frequently during presentations.
- ▶ Repeat major concepts or points. Use verbal clues (“This is important…”).
- ▶ Stop and review material during lessons. Summarize.
- ▶ Provide written examples or samples.
- ▶ Vary complexity of questions (concrete through abstract).
- ▶ Give assessments orally or tape record them. If necessary tape the whole lesson.
- ▶ Give students a “get up and stretch” break.

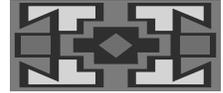
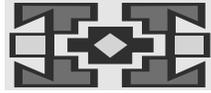
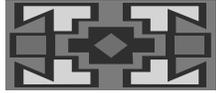
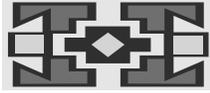
Example of Accommodations for a Specific Concern

Gr. 5 student: Writes very slowly; cannot take notes, copy down all the information presented in lessons, or write answers to questions

- ☺ Highlight key words and/or essential phrases. As other students copy or write complete sentences, require that this student only copy the key, highlighted parts, or respond to questions with one or two word answers.
- ☺ Provide the student with a partially completed outline of a presentation before the lesson. Have him finish phrases during the presentation.
- ☺ Allow the student to tape record lessons for review later when he is not under time pressure.
- ☺ Modify expectations of handwriting neatness for notes or non-final drafts.
- ☺ Allow this student to dictate written responses (answering questions, tests).



Sample Teacher Strategies for Accommodation



Physical Environment: Structuring the Classroom Arrangement/Environment

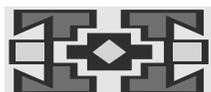
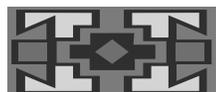
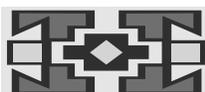
General

- ▶ Adjust seating arrangements. Also consider lighting (dim/bright, natural/artificial).
- ▶ Post a class schedule daily. Go over the plans for the day's lessons and activities. Write, point to, and say the objective prior to the start of each new lesson.
- ▶ Arrange the room so that the students face the instructor during presentation. Place the teacher's desk/table behind the students.
- ▶ Label and post a class "map" of areas designated for specific activities (reading corner, supply station, quiet zone...).
- ▶ Set up a "help desk." Choose specific, regular times to be available to help students with work or problems. Post your "office hours" at the help desk. Invite students with exceptional skill in an area or who get their work done quickly and are willing to then help others, to be volunteer "office assistants."

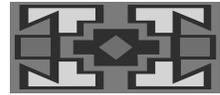
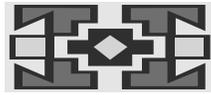
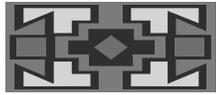
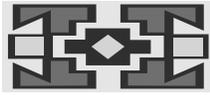
Example of Accommodations for a Specific Concern

Gr. 2 student: Easily distracted by any stimuli, is "fidgety," and has difficulty staying on task for any length of time

- ☺ Adjust the classroom seating arrangements. Place this student away from windows, doors, and "busy" areas. Particularly during independent work time, have her sit at an individual desk rather than at a group table.
- ☺ Designate "zones" in the classroom. Have an instructional zone that draws attention to the instructor and relevant materials, such as a chart or overhead transparency screen. Keep this relatively free of extraneous decoration. Put art materials and displays at the back of the room or at least behind this student.
- ☺ Allow only the materials needed for the current task on the student's desk.
- ☺ Every 15 or 20 minutes, take a "shake break" with the class. Have all students stand and shake out each leg, each arm, and then wiggle their bodies for one minute. Occasionally let students take a shake break with music. (Note: For older students, make it a "stretch break.")



Sample Teacher Strategies for Accommodation



Materials: Strategies for Adapting Student and Teacher Materials

TEXTBOOKS

- ▶ Tape record a “guide” that directs a student how to follow the text and prompt them for what is to come. Example: “Find the heading on page 37. Read it to yourself as I read it aloud...; Question 1 is about rocks that change form, called metamorphic...”
- ▶ Preview the text by providing an outline or going over the questions or assignment before presenting the text.
- ▶ Provide a vocabulary list. Read and review the words and their meanings before they are introduced in text.
- ▶ Use highlighter tape for important terms and points to remember in the text.
- ▶ Have student volunteers orally summarize or paraphrase portions of text they have read silently.

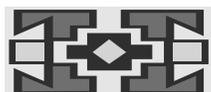
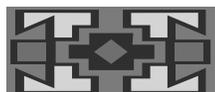
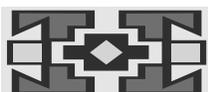
ASSIGNMENTS/ACTIVITIES

- ▶ Break assignments and periods requiring great concentration into short segments.
- ▶ Give parallel assignments. Example: If the assignment is to *write* 5 words that begin with “gr,” have this student *draw* pictures of 5 things that begin with “gr.”
- ▶ Use concrete supports for abstract ideas wherever possible. (Manipulatives are not just for math!) Examples: To match terms, pictures, Q&A, etc., make two-part puzzles by cutting apart index cards with a randomly-shaped cutting line. To “experience” sequence, give each student a part and have them physically arrange themselves in sequence.

Example of Accommodations for a Specific Concern

Gr. 6 student: Has difficulty reading independently; avoids free-choice reading, especially long or text-heavy works (novels)

- ☺ Introduce the student to “books on tape.” This is especially helpful for handling “core” literature requirements.
- ☺ Read an exciting novel to the class—a few pages at a time. Stir up anticipation by asking some prediction questions prior to each passage. Read the text dramatically. Follow with a variety of questions about what you read—literal to interpretive. (Ask a librarian for good suggestions for your grade level.)



Sample Teacher Strategies for Accommodation



Instructional Strategies: Helping Students Acquire Skills within the Regular Classroom

General

- ▶ Provide a rationale for the lesson. Point out the benefits of knowing the skills and how they apply to students' "real" lives, now or in the future.
- ▶ Begin a lesson on new material with a review. Check retention of previously taught material or knowledge of prerequisite skills.
- ▶ State the goal and objective prior to each lesson to help students be better prepared for what is to come and to focus during the lesson. Then, summarize main ideas and key points (verbally and visually).
- ▶ Elicit and draw upon students' prior knowledge and experiences to connect the known and familiar to new information and novel concepts.
- ▶ Point out similarities and differences wherever possible. Use webs, diagrams, and other graphic organizers to illustrate structure, content, relationship, etc.
- ▶ Provide *relevant* homework and practice, and only the amount needed. Give follow-up tasks that reinforce or extend skills and concepts (and not just busy work).
- ▶ Balance lecture-type instruction with hands-on activities and demonstrations, concrete experiences, and visual presentations.
- ▶ Vary groupings for instruction—size and make up. (Students should not always be with the same group.) Let students help each other learn in cooperative groups.
- ▶ Encourage learning by problem solving and discovery by experimentation.

Example of Accommodation for a Specific Concern

Gr. 9 student: Has difficulty processing lessons presented in a large-group lecture format

- ☺ Use an overhead projector during the lesson to list vocabulary and key ideas in sequence. Or, if prepared ahead, block off all but the part you are on.
- ☺ Give this student a modified version of the follow-up assignment or homework, or let the student work with a partner for in-class assignments.
- ☺ Make hand-outs and/or study guides for students. Divide students into small study groups to discuss and review the material.





Other SAT Responsibilities

SAT Responsibility Regarding Retention and Promotion

Section 22-2C-6 NMSA1978 addresses remediation programs and retention policies. The law requires that schools implement a promotion/retention policy based on three types of data: statewide assessment, alternative district-level assessment, and student performance in school (grades). The statute specifies the duties of the school and the SAT with regard to general education students who are struggling and either face possible retention or have been retained. Specifically, the law states the following:



- ▶ Parents or guardians are to be notified no later than the end of the second grading period (first semester) that their child is failing to attain appropriate grade level **academic proficiency** in the state's content and performance standards. A parent-teacher conference that includes the parent and teacher must be held to discuss possible remediation programs to help the student. Specific academic deficiencies and remediation strategies are to be shared with the parent and the teacher develops a written remediation plan containing timelines, academic expectations, and the measurements to be used to verify that the student has overcome the academic deficiencies. Remediation plans may include tutoring, extended day or week programs, summer programs, and other research-based interventions and models for student improvement provided by the district.
- ▶ **At the end of grades one through seven**, a student who has not attained the required level of **academic proficiency** established by the state's content and performance standards may either 1) participate in remediation and, if he or she is able to reach the required level of proficiency through remediation (including summer remediation), be promoted to the next grade level, or 2) be retained in the same grade for no more than one school year with an Academic Improvement Plan developed by the SAT. If the parent refuses to allow the student to be retained, the parent signs a waiver stating that refusal and agreeing that the student be promoted with an Academic Improvement Plan (AIP) in place that addresses specific deficiencies. **In developing an AIP, the SAT is to outline timetables and monitoring activities to ensure progress toward overcoming the academic deficiencies.** If, at the end of that year, the student has not attained academic proficiency, the student is to be retained in that grade for no more than one year in order to



have more time to achieve proficiency. No parental approval is necessary. (See Flowchart, page 50.)

- ▶ **At the end of grade eight**, if a student has not attained the required level of academic proficiency for entering grade nine, the student shall be retained for no more than one school year, **unless** the SAT determines that retention will not likely help the student attain the desired proficiency level. If the SAT recommends promoting rather than retaining the student, the team must develop a high school graduation plan to meet the student’s needs for entry into the workforce or post-secondary education. If the student is retained in grade eight, the SAT must develop a specific AIP (see pages 71–72 for a sample *Academic Improvement Plan* form) that clearly delineates the deficiencies and prescribes specific remediation that addresses the deficiencies. (See Flowchart, page 51.)
- ▶ **Any student** who fails to attain academic proficiency in the state’s content standards for two consecutive school years is to be referred to the SAT for placement in an alternative program designed by the district.
- ▶ **IMPORTANT:** Promotion and retention decisions affecting a student receiving special education services are made by the student’s IEP team (**not the SAT**) and in accordance with the instructional program provided by the IEP.

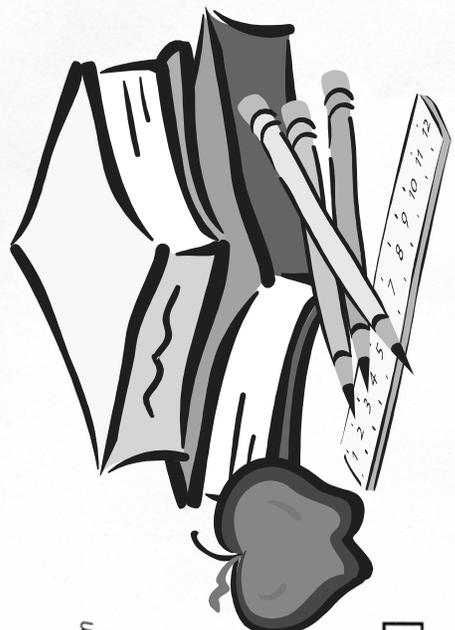
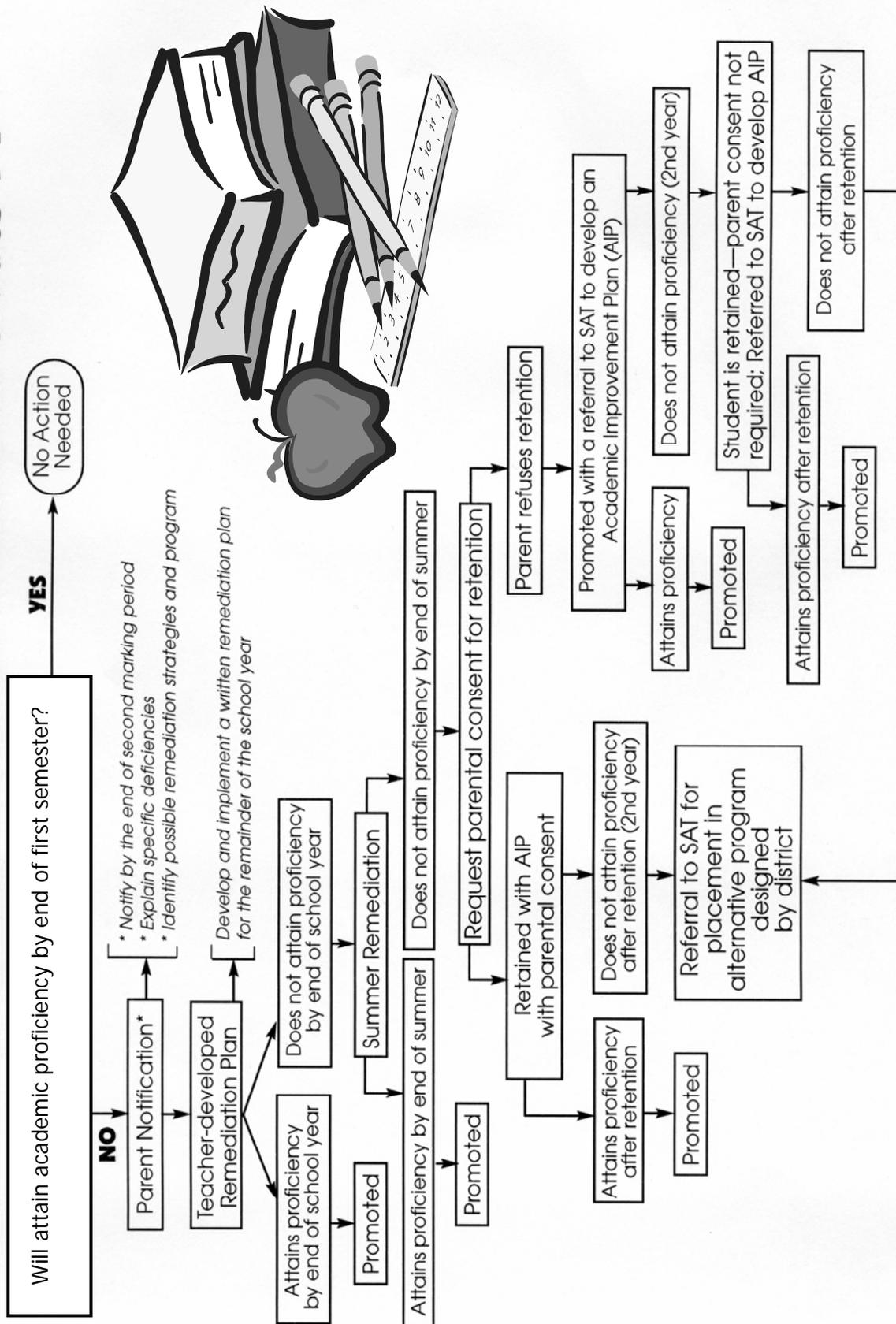
NOTES: *Although research does not support that retention provides students with long-term gains, the state statute specifically sets forth this possibility. However, the law also prescribes a series of intervening steps that seek alternatives to retention and are designed to address the specific instructional needs of the “failing” student in order to prevent retention.*

*In view of the SAT’s responsibility regarding retention and promotion, a recommended practice would be for the SAT to contact **all teachers** at the end of the **first** grading period to determine which students may already be failing to achieve grade level academic proficiency. This gives the SAT opportunities to locate students who may need to be referred to the SAT and/or to offer informal preemptive assistance to the teacher well before the end of the second grading period. This anticipatory action may not only reduce the number of student referrals to the SAT, but more importantly, may prevent some students from facing failure or retention at all.*



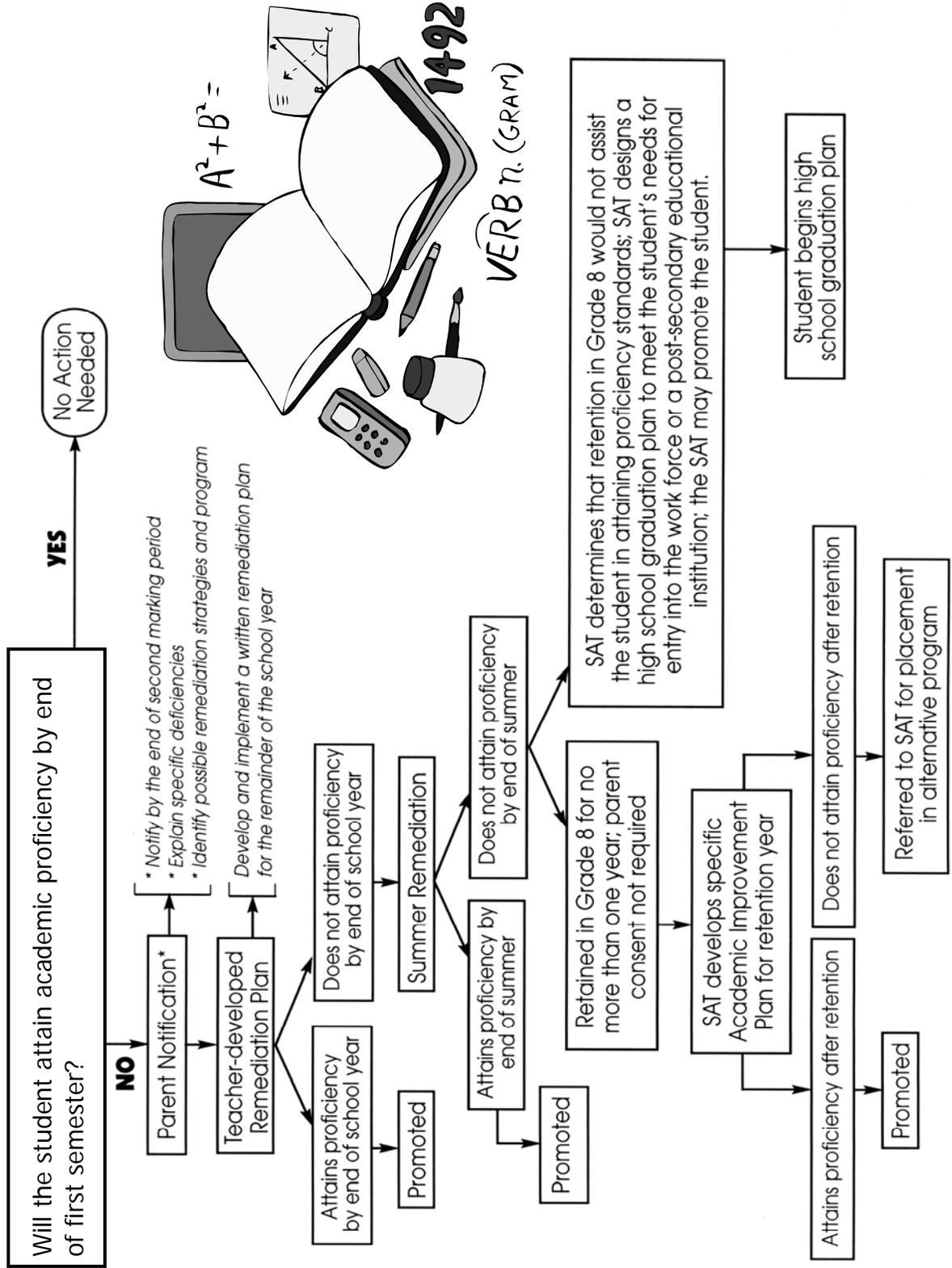
Addressing Student Individual Needs

Promotion and Retention Procedures Grades 1-7



Addressing Student Individual Needs

Promotion and Retention Procedures Grade 8





Section 504 Team and Accommodation Plan



Section 504 is federal civil rights law under the Rehabilitation Act of 1973. The U. S. Department of Education’s Office for Civil Rights (OCR) administers Section 504—not the State. Section 504 is the other service option available to students with disabilities, **but who are not eligible and/or already receiving special education services under the eligibility requirements of the IDEA (Tier III)**. It is designed to provide equal access and fairness in general education to students with disabilities, thereby leveling the playing field for them. A Section 504 Plan is a Tier II intervention— part of an early intervention and response to intervention (RtI) framework.



Under this federal law, the school is responsible for managing and funding this program/service. A student is eligible and **entitled to** a Section 504 Accommodation Plan if an evaluation shows that the individual has a **mental or physical impairment that substantially limits one or more major life activities and it impacts the student’s education**. The decision regarding Section 504 eligibility needs to be made with current evaluation data and by a group that is knowledgeable about the student, including the parents. Responsibility for developing a Section 504 Accommodation Plan should consist of a core group that includes the principal or administrator, referring and/or classroom teacher, school counselor, and parent—virtually the same as the core members of the SAT. **In fact, the SAT in many cases may also be the Section 504 team.** In addition to the core group, the Section 504 team should include personnel familiar with the laws governing special education and Section 504, so the SAT may need to seek additional training or review technical assistance manuals on these topics in order to fulfill this additional responsibility.



For more detailed information on the Section 504 Accommodation process, please refer to the New Mexico Public Education Department’s publication, *Section 504— Guidelines for Educators and Administrators* available at the Quality Assurance Bureau on the Department’s website at www.ped.state.nm.us. Or, visit OCR’s website at www.ed.gov/OCR and the *Frequently Asked Questions (FAQs)* document.



In order to help schools identify students who may qualify for Section 504 services, the New Mexico Public Education Department suggests these “red flags” as possible reasons for considering a referral for a Section 504 evaluation:

- ▶ when a disability of any kind is known or suspected
- ▶ when a student exhibits a chronic or recurring health condition





- ▶ when a student returns to school after a serious illness or injury
- ▶ when a student is referred for evaluation under the IDEA, but it is determined that an evaluation is not warranted



- ▶ when a student is evaluated for special education, but **does not** qualify for services under the IDEA



- ▶ when a parent frequently expresses concern about student’s performance
- ▶ when suspension or expulsion is being considered for any student
- ▶ when retention is being considered



- ▶ when a student shows a pattern of not benefiting from instruction
- ▶ when a student is identified as having Attention Deficit Disorder (ADD) or Attention Deficit Hyperactivity Disorder (ADHD)



- ▶ when the student is or has been in rehabilitation for substance abuse
- ▶ when a student has a parent with a disability



In most cases, when a referral is made to the Section 504 team, the first step is to define the problem(s) raised by the referring person and to review what remedies have been previously tried. If the team decides that an evaluation is necessary, the school notifies the parents of its intent and reason for conducting an evaluation, explains the evaluation(s) to be done, and informs them of the procedural safeguards. **Section 504 law requires prior parental consent before doing an initial evaluation.**



Following the evaluation, the Section 504 team considers all available data and determines if the student qualifies for a Section 504 Accommodation Plan. If so, the team develops strategies and interventions for the student. (This is done in the same manner as the SAT procedures.) Ideally, the parents should be involved in the decision-making. Regardless of whether or not the parents are directly involved, Section 504 requires that districts provide notice to parents that explains any evaluation and placement decisions affecting their child, and that explains their rights to review educational records and appeal any decision regarding evaluation and placement through an impartial hearing.* *According to the U.S. Department of Education’s Office for Civil Rights (OCR), **placement** refers to any program in which a student receives educational and/or related services.*



A sample Section 504 Accommodation Plan form is available on pages 73–74. This form can serve as both documentation of the plan and parent notice/consent* to initiate services. Once implemented, a student’s Section 504 plan needs to be reviewed *periodically* (which OCR has interpreted to mean *annually*). Though no



law specifies a timetable, at the first meeting the team should schedule a date for reviewing if/how the initial accommodations are working, and then should review the student’s progress and plan at least annually.



**Note about Section 504 Procedural Safeguards: OCR has interpreted Section 504 to require parental permission for initial evaluations. Districts may use due process hearing procedures to override parents’ denial of consent for evaluation. OCR accepts written consent as compliance. For initial provision of needed services, Section 504 neither prohibits nor requires a school district to initiate a due process hearing to override parental refusal to consent with respect to initial provision of Section 504 accommodations . OCR recommends following the IDEA, which no longer permits school districts to initiate a due process hearing to override a parental refusal to consent to initial provision of services. This means that under IDEA, if a district offers the service and the parents refuse, then the district is not in violation of the requirement to make the plan available.*



SAT Responsibility Regarding Referrals to Other Programs



Once a student is formally referred to another program, a new referral process is begun. At that time, the SAT provides documentation from general screening (Tier I) and its history with the student at Tier II for use by the new program. **If the student is found to be ineligible for other programs, he or she must be referred again back to the SAT. The struggling student should not be left without any assistance process or program.**



Remember, for those students whose SAT Intervention Plan has been unsuccessful and/or whose challenges fall outside the range of general education, the SAT has these options as possible avenues for assisting the student, as appropriate:



- ▶ Title I
- ▶ Indian Education
- ▶ Bilingual Education
- ▶ Multidisciplinary Evaluation to determine eligibility for Special Education services
- ▶ Section 504 Accommodation Plan
- ▶ Community Agencies and Local Supports



SAT Referral Packet



Student _____ Grade _____ Date _____

School _____ Teacher _____

Name/Signature of Referring Teacher _____

Name of Parent/Guardian _____

Fill out sections A–D for all students. Fill out section E only if behavior is an area of concern.

A. Mark **only** areas of concern below that **significantly affect** the student’s classroom experiences. Rate your concern as **(H)** High or **(S)** Some. If you are not sure, **do not** mark it.

- | | |
|---|---------------------------------------|
| _____ physical attributes | _____ attention span |
| _____ attendance | _____ memory skills |
| _____ activity level | _____ ability to follow directions |
| _____ oral comprehension | _____ listening skills |
| _____ language development | _____ response to questions |
| _____ language fluency | _____ ability to focus on task |
| _____ problem-solving ability | _____ frustration threshold |
| _____ vocabulary | _____ self-expression |
| _____ organizational skills | _____ self-discipline |
| _____ easily confused | _____ gross motor skills/coordination |
| _____ social/interpersonal skills | _____ fine motor skills |
| _____ self-awareness | _____ disorientation |
| _____ over-aggression | _____ passive/nonresponsive |
| _____ low self-esteem | _____ lack of responsibility |
| _____ academic progress (list skills/areas of concern) | |

_____medical/health (manifestations/areas of concern) Note: Vision and/or hearing concerns should be screened and resolved prior to continuing the SAT process and documented here.

_____behavior (observations/areas of concern) _____

_____emotional/social (specify and describe) _____

_____OTHER (specify and describe) _____

B. Add any other information you can to help the team better understand your concerns. Also describe the student's **strengths.** _____

C. PRIOR ACTIONS TAKEN TO ADDRESS THE CONCERN

1. Of the four main areas listed below, which have you changed in some way in an attempt to address the concern? Check the area(s) and describe what you manipulated.

Presentation: How lessons are delivered and materials are displayed

Physical Environment: The classroom arrangement and learning environment

Materials: Changing student and teacher materials

Instruction: Ways students acquire skills in the classroom

2. Below is a partial list of possible **Tier I** interventions. Check any that have been used prior to this point to address the concern. Add other specific interventions that have been tried.

- | | |
|--|---|
| <input type="checkbox"/> using tape recorder; overhead projector | <input type="checkbox"/> memory drills (math facts) |
| <input type="checkbox"/> previewing; rephrasing | <input type="checkbox"/> memory drills (sight words) |
| <input type="checkbox"/> using graphic organizers | <input type="checkbox"/> pattern books and word families |
| <input type="checkbox"/> posting charts; labeling | <input type="checkbox"/> manipulatives for math, other subjects |
| <input type="checkbox"/> contracts | <input type="checkbox"/> modified discipline plan |
| <input type="checkbox"/> giving visual/verbal clues | <input type="checkbox"/> attendance follow-up |
| <input type="checkbox"/> peer tutoring | <input type="checkbox"/> observation by another staff member |
| <input type="checkbox"/> use of alternative materials | <input type="checkbox"/> ESL (English as a Second Language) |
| <input type="checkbox"/> cooperative learning | <input type="checkbox"/> ECL (Early Childhood Literacy) |
| <input type="checkbox"/> tailored assignments | <input type="checkbox"/> Title I reading |
| <input type="checkbox"/> reinforcement schedules | <input type="checkbox"/> Bilingual Education |
| <input type="checkbox"/> parent involvement | <input type="checkbox"/> Reading First |

- | | |
|---|---|
| <input type="checkbox"/> preferential seating | <input type="checkbox"/> counseling |
| <input type="checkbox"/> acknowledging correct responses | <input type="checkbox"/> point out relevance to students' lives |
| <input type="checkbox"/> dividing tasks into smaller portions | <input type="checkbox"/> giving opportunities for success |
| <input type="checkbox"/> offer strategies for self-management | <input type="checkbox"/> giving opportunities for leadership |
| <input type="checkbox"/> incorporating cultural differences | <input type="checkbox"/> promoting family involvement |
| <input type="checkbox"/> providing bilingual signs/labels | <input type="checkbox"/> building on student's strengths |
| <input type="checkbox"/> using music, art, drama | <input type="checkbox"/> tutoring |
| <input type="checkbox"/> other _____ | |

3. If interventions have been tried, describe their effectiveness and duration in weeks.

(Optional) If they were ineffective, what do you hypothesize as the possible reason?

D. ATTACHMENTS

If the student is having **academic difficulties**, please attach a sample(s) of the student's work and/or standards-based or short-cycle assessment results that reflect your specific concern(s).

- sample(s) attached N/A

If there is a **medical concern**, please attach any known relevant information or history.

- information attached N/A

If there is a **behavioral concern**, please attach any disciplinary action taken or other documentation and fill out section **E: Teacher Input for Addressing Problem Behaviors**.

- documentation attached teacher input completed (section E) N/A

E. Teacher Input for Addressing Problem Behaviors

(Teacher fills out this section if student is being referred to the SAT for behavioral concerns. If behavior is not an issue, there is no need to complete this section.)

1. Describe the behavior(s) of concern. Use measurable terms. *Example: Rather than “Lisa picks fights,” describe the actions and frequency: “Lisa demonstrates aggressive behavior toward other children at least 2–3 times a day, often more. She shows her aggression by such actions as pushing, grabbing materials from others, and by using verbal commands and name-calling.”*

2. When is the behavior most and least likely to occur? Mark each as **M** (More Likely), **L** (Less Likely), or **U** (Unlikely).

_____ On a particular day or days of the week, such as Fridays?
If so, which? _____

_____ At a particular time or times of the day, such as lunch or transitions?
If so, when? _____

_____ During certain types of activities or tasks, such as math or independent work?
If so, when? _____

_____ When interacting with certain people—individuals or groups?
If so, who? _____

_____ Under specific environmental conditions, such as in crowds or outdoor recess?
If so, what? _____

_____ When physically tired, hungry, or sick?
If so, which? _____

3. What do you think the student gains or avoids by demonstrating the behavior?

Get attention? _____ What kind? From whom? _____

Avoid attention? _____ What kind? From whom? _____

Get control? _____ Of what? _____

Avoid embarrassment? _____ Regarding what? _____

Get relief? _____ From what? _____

Avoid task? _____ Which? _____

OTHER? _____

4. Describe the specific expectations you have for the student that are not being met.

5. How have you conveyed your expectations to the student? _____

6. Do you think the student **can't** (is unable to) or **won't** (is unwilling to) demonstrate the appropriate/desired behavior? Why? _____

7. What appropriate/acceptable behavior(s) could the student use as a substitute for the behavior regarded as unacceptable? _____

8. What have you already tried to change about the situations in which the behavior occurs?

- modified tasks/assignments to align better with student's skills
- changed the student's schedule or order of activities
- changed the curriculum for this student
- provided extra assistance
- changed the student's physical environment (seating, room arrangement, grouping...)
- other _____
- other _____

9. What techniques have you already tried to help the student meet behavioral expectations?

- | | |
|---|--|
| <input type="checkbox"/> posted rules for the whole class | <input type="checkbox"/> denied desired items/activities |
| <input type="checkbox"/> immediate feedback | <input type="checkbox"/> notes/phone calls to parents |
| <input type="checkbox"/> teacher-student contract | <input type="checkbox"/> loss of privileges |
| <input type="checkbox"/> met with parents | <input type="checkbox"/> reprimands |
| <input type="checkbox"/> reward system | <input type="checkbox"/> ignored the behavior |
| <input type="checkbox"/> hand or other signals | <input type="checkbox"/> detention |
| <input type="checkbox"/> offered options/choices | <input type="checkbox"/> referral to office |
| <input type="checkbox"/> consistency of enforcement | <input type="checkbox"/> referral to school counselor |
| <input type="checkbox"/> other _____ | |
| <input type="checkbox"/> other _____ | |

NOTE: For in-depth analysis and guidance regarding behavior issues, see the New Mexico Public Education Department's publication *Addressing Student Behavior: A Guide for Educator*.



Notice of and Invitation to SAT Meeting

Date of Notice/Invitation: _____



Dear _____,



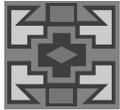
In accordance with our Educational Plan for Student Success (EPSS), the school has a Student Assistance Team (SAT) whose purpose is to review the educational needs and progress of any student who may require additional educational support.



The team has been asked to review _____'s individual needs to determine if additional supports are necessary. The team will review existing data and, as needed, conduct observations and/or do additional screening.



In addition to your permission to do additional screening below, we need your input and participation in working with us to meet your child's needs. We invite you to attend the SAT meeting and to contribute your valuable insight. Please sign and return the bottom of this form to give your permission for additional screening and to indicate if you would like to attend. If you have any questions, please contact me at the number below.



Sincerely,



(name) _____ (title) _____



(telephone number) _____



Student's name: _____



Home address: _____



Telephone number: _____



Grade: _____ Birth date: _____ ID#: _____



Parent/Guardian: _____

I do do not give my permission for additional screening if needed.

I do do not want to attend the SAT meeting.

Please send me a copy of the summary of this meeting.

Please let me know the time/place of the SAT meeting.

I need an interpreter. (Necesito un traductor).



Parent/Guardian Signature: _____

Date: _____

Student Observation

(To be completed by qualified personnel. More than one observation is recommended to prevent skewing of information)

Student _____ Grade _____ Date _____

School _____ Teacher _____

Name of Referring Teacher or Parent/Guardian _____

Name & Title of Observer _____

Circumstances of Observation (subject, teacher, time of day, reason for observation, etc.)

A. Compare this student's performance with that of the majority of other students in the class.

1. How the student works ___ *more slowly* ___ *more quickly* ___ *about the same*
2. Focus & attention span ___ *better* ___ *poorer* ___ *about average*
3. Activity level of the student ___ *more active* ___ *less active* ___ *about the same*
4. Language skills ___ *better* ___ *poorer* ___ *about average*
5. Demonstration of interest ___ *disinterested* ___ *very interested* ___ *about average*
6. Subject matter difficulty/frustration ___ *high* ___ *low* ___ *about average*
7. Emotional/social maturity ___ *less than* ___ *greater than* ___ *about average*
8. other (specify) _____

B. Teacher Behavior Observed: Check all that apply.

Teaching Methods Observed: ___ visual ___ auditory ___ lg. group ___ sm. group
___ one-to-one ___ peer ___ other (specify) _____

Conceptual Content: ___ concrete ___ abstract ___ both

Behavior Reinforcement: ___ positive ___ negative ___ ignored ___ isolation
___ other (specify) _____

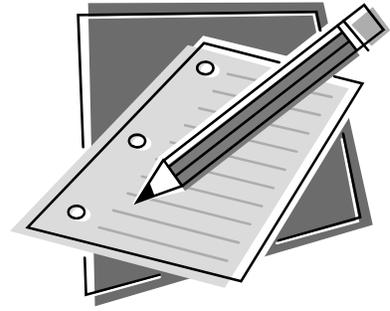
Teacher's Style

1. How much movement/activity is allowed? ___ *a great deal* ___ *some* ___ *minimal* ___ *none*
2. How much talking/noise is tolerated? ___ *a great deal* ___ *some* ___ *minimal* ___ *none*
3. What type(s) of feedback were given? ___ *praise* ___ *criticism* ___ *reward* ___ *punishment*
4. What tone/manner was used to communicate? ___ *supportive* ___ *matter-of-fact* ___ *harsh*
5. During this observation, how did the teacher spend most of his or her time? (e.g. at the board, with a small group, at the teachers' desk, circulating among students at work)

6. What, if anything, about the teacher or classroom seemed to have a positive or negative effect on the students in general, or on this student in particular? _____

C. Student Behavior Observed: Write yes or no with regard to the student being observed.

- 1. _____ The student performs with the group.
- 2. _____ The student voluntarily participates in activities.
- 3. _____ The student is responsive to the teacher.
- 4. _____ The student is responsive to other students.
- 5. _____ The student starts and stays on task.
- 6. _____ The student finishes what is started.
- 7. _____ The student answers when called on.
- 8. _____ The student shows independence.
- 9. _____ The student seems alert (not sleepy or lethargic).



D. Based on this observation, check any area that may be an issue.

(Additional comments helpful, but optional).

___ English proficiency _____

___ Instructional level _____

___ Environment _____

___ Developmental _____

___ Motor skills _____

___ Emotional _____

___ Psychological _____

___ Giftedness _____

___ Family _____

___ Cultural _____

___ Health/Medical _____

___ other (specify) _____

E. Student Strengths: What strengths were observed in this student have that could be drawn upon in designing interventions?

F. Summary: Please provide a narrative summary of the student’s learning/behavior. (Use and attach a separate sheet if necessary).

SAT Meeting Summary Form

Student _____ Grade _____ Date _____

School _____ Teacher _____

Referred by teacher parent/guardian _____

Teacher _____ Parent/Guardian _____

Date of Meeting _____ initial follow up to meeting on _____

In Attendance at the Meeting (*SAT chairperson, administrator/principal, general education teacher(s), nurse, counselor, resource specialist, bilingual, parent/guardian, student*)

- SAT chairperson Name: _____
- Administrator Name: _____
- Teacher Name: _____
- Parent/guardian Name: _____
- Parent/guardian Name: _____
- _____ Name: _____
- _____ Name: _____
- _____ Name: _____

PART 1: Check all that apply:

Vision

- Poor Corrected (Date) Good Excellent

Impact on Learning: _____

Hearing

- Poor Amplified/Aided (Date) Good Excellent

Impact on Learning: _____

Speech/Language

- Normal/Adequate Rapid/Rambling Slow/Slurred Low Tone
 Somewhat Unintelligible Unintelligible Raspy Voice Articulation Errors

Impact on Learning: _____

General Physical Health

- Fragile or Impairment Chronic Illness Good Excellent

Impact on Learning: _____

Mental/ Behavioral Health Concerns

- None
 Conduct
 Anxiety
 Depression
 Phobia
 Substance Abuse
 Other: _____

Impact on Learning: _____

Attitude Toward Self

- Poor
 Normal/Positive
 Confident
 Overconfident
 Unrealistic

Cultural Background

Describe: _____

Level of Acculturation (See page 19 for definitions.)

- Bicultural
 Assimilated
 Traditional
 Marginal

Impact on Learning: _____

Languages Spoken

- none
 English only
 Bilingual: _____ and _____
 other: _____

English Language Proficiency

- Little/None
 Basic Social Language
 Mastered Social Language
 Emerging Cognitive Academic Language
 Fluent/Proficient

Socioeconomic Status

- Low
 Middle
 Upper
 Changing: Up____Down_____

Impact on Learning: _____

Academic Progress for Grade Level

- Reading:**
 Significantly Below
 Below
 At
 Above

Impact on Learning: _____

- Written Language:**
 Significantly Below
 Below
 At
 Above

Impact on Learning: _____

- Math:**
 Significantly Below
 Below
 At
 Above

Impact on Learning: _____

School Attendance

- Poor/Infrequent
 Truant
 Tardy
 Frequent Moves
 Good/Excellent

Impact on Learning: _____

Evidence of Lack of Instruction

- No Schooling Periods of No Schooling Ineffective Instruction
 Not a concern

Attention and Interest in School

- Poor/Indifferent Distracted/Bored Alert/Engaged Over-responsive

Impulse Control

- Poor Fair Good Excellent

School Social Relationships

- No Friends Few/Adequate Friends Many Friends Too Many Friends

Relationship With Teacher

- Distant/Reluctant Normal Needs Closeness/Frequent Contact

Learning Style

- Visual Auditory/Verbal Tactile/Kinesthetic Combination
 Active Reflective

Classroom Environment

- Highly Structured Structured Unstructured
 Highly Unstructured Combination

Teaching Style (See pages 25–26.)

Primary Teacher:

- Expert Model/Coach Tolerant/Facilitator Relaxed Overlapping

Other Teacher: Subject _____

- Expert Model/Coach Tolerant/Facilitator Relaxed Overlapping

Other Teacher: Subject _____

- Expert Model/Coach Tolerant/Facilitator Relaxed Overlapping

Student's Strengths

- _____ _____
 _____ _____

PART 2. Summary of Previous Interventions Tried and Their Effectiveness

Describe each intervention and rate its effectiveness 1–5, with 1 as lowest. Include the duration and how outcome was measured.

Interventions Tried in the Classroom ***Rating 1–5***

_____	_____
_____	_____
_____	_____
_____	_____

Interventions Tried at Home ***Rating 1–5***

_____	_____
_____	_____
_____	_____
_____	_____

PART 3. Summary of Screening and Recent Test Results _____

PART 4. Additional Information (brought to light at the meeting) _____

PART 5. Insights/Hypothesis

Based on a review of the information above, note the reason(s) why this student seems to be struggling in school. _____

Part 6. Conclusion and Next Steps

Based on the input examined by the SAT, note the next steps decided upon for this student.

The student appears to need no intervention at this time.

_____ No further action is required.

_____ Follow up on (date): _____

The student's challenges suggest that a **SAT Intervention Plan** is warranted.

Existing data is insufficient for a complete determination. More information needs to be collected. The SAT will meet again on (date): _____.



Notes

SAT Intervention Plan

As a result of a SAT meeting on _____ to review _____'s individual needs and to determine if additional supports are necessary, the team recommends the following appropriate and research-based interventions listed below:

Note: The accommodation, desired outcome, and how success will be determined should be described in observable, measurable terms. (Example: 3 times per week, not more often)

Intervention	Who is Responsible
	Duration (weeks or month/day/year)
	Desired Outcome
	How Success of Intervention Will Be Measured
Intervention	Who is Responsible
	Duration (weeks or month/day/year)
	Desired Outcome
	How Success of Intervention Will Be Measured
Intervention	Who is Responsible
	Duration (weeks or month/day/year)
	Desired Outcome
	How Success of Intervention Will Be Measured

The SAT will meet again on _____ to review this plan.

If there are more than three interventions, reproduce additional copies of this page.

Intervention Plan Progress Report and Follow-Up Form

Student _____ Grade _____ Date _____

School _____ Teacher _____

Referred by teacher parent/guardian other _____

Teacher _____ Parent/Guardian _____

Date of Initial Meeting _____ Date Interventions First Implemented _____

The purpose of this follow-up is to review the progress and effectiveness of the following Tier II actions:

In-class Interventions Academic Improvement Plan Section 504 Accommodation Plan

Date of Initial SAT/504 Meeting _____ Date Interventions Were Implemented _____

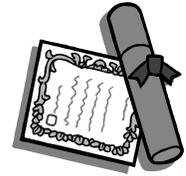
Discussion of Progress (Summarize) _____

Intervention(s)	Duration	Outcome (Ex: degree of improvement, no change, degree of worsening)
New Intervention(s)	Duration	Desired Outcome

Based on discussion and evaluation of actions taken previously, the recommendation is

- Continue present interventions/services with no changes, until _____.
- Change the present interventions/services as noted above.
- Phase out the present interventions/services by _____.
- Conduct additional evaluations, observations, interviews, work samples, etc.
- Meet to consider further referral of this student.
- Exit the intervention plan, based on no further need for support.

Academic Improvement Plan (AIP)



Student _____ Grade _____ Date _____

School _____ Teacher _____

Person with primary responsibility for this AIP _____

Reason(s) this student is receiving an AIP (check and describe)

- student is not attaining level of proficiency required by content standards at grade level
- student is being retained and is repeating grade ___1 ___2 ___3 ___4 ___5 ___6 ___7
- student is being retained in eighth grade

Describe this student’s circumstances in more detail (document the basis for the AIP):

List each need in order of priority and describe specifically how it is to be met.

<p>Area of Need & Specific Deficit (objective-based from Content and Performance Standards)</p>	<p>Intervention that Addresses the Need</p>
	<p>Time Line & How Progress Will be Assessed</p>
	<p>Who Will Implement the Intervention</p>
	<p>Criteria for Evaluating Success</p>

Area of Need & Specific Deficit (objective-based from Content Standards)	Intervention that Addresses the Need
	Time Line & How Progress Will be Assessed
	Who Will Implement the Intervention
	Criteria for Evaluating Success
Area of Need & Specific Deficit (objective-based from Content Standards)	Intervention that Addresses the Need
	Time Line & How Progress Will be Assessed
	Who Will Implement the Intervention
	Criteria for Evaluating Success

PARENT/GUARDIAN:

I, _____, as this student’s parent/guardian, have reviewed the AIP plan for my child. **Signature:** _____ **Date:** _____

Section 504 Accommodation Plan



Student _____ Grade _____ Date _____

School _____ Teacher _____

YES NO The student has a mental or physical impairment that substantially limits one or more of his/her major life activities.

YES NO The physical or mental impairment impacts his/her education.

YES NO The impairment substantially affects the student’s overall performance at school

in regards to seeing hearing doing manual tasks

breathing walking speaking caring for oneself

writing learning working showing troubling behavior

To be eligible for a 504 Accommodation Plan, all three answers above must be YES. Is this student is eligible to receive a 504 Accommodation Plan? _____

Describe what evaluation data was used; Describe this student’s circumstances and its educational impact in more detail (that is, document the basis for the 504 Plan):

The case manager for Section 504 Plan will be: _____

Date of Meeting & Initial Plan _____ Annual Review scheduled for _____

List each need in order of priority and describe specifically how it is to be met.

Specific Need (How does the impairment impact the student’s education and what is needed to eliminate the restriction?)	Accommodations that Address the Need
	Special Materials or Training Needed—Who, How, and When?
	Who Will Implement the Accommodations
	Criteria for Evaluating Success

Specific Need (How does the impairment impact the student's education and what is needed to eliminate the restriction?)	Accommodations that Address the Need
	Special Materials or Training Needed—Who, How, and When?
	Who Will Implement the Accommodations
	Criteria for Evaluating Success
Specific Need (How does the impairment impact the student's education and what is needed to eliminate the restriction?)	Accommodations that Address the Need
	Special Materials or Training Needed—Who, How, and When?
	Who Will Implement the Accommodations
	Criteria for Evaluating Success

Section 504 Plan Team:

Signature: _____ Title: _____ Date: _____

PARENT/GUARDIAN:

I, _____, as this student's parent/guardian, give do not give permission for my child to receive the accommodations described.

Signature: _____ Date: _____

Student Assistance Team (SAT) Log

Log dates from _____ to _____ Person Responsible for Maintaining Log _____

Student	ID#	Grade	D.O.B.	Referred by
	Date Referred	Date of SAT Meeting		Follow-Up Date
	Outcome of SAT Meeting			Comment
Student	ID#	Grade	D.O.B.	Referred by
	Date Referred	Date of SAT Meeting		Follow-Up Date
	Outcome of SAT Meeting			Comment
Student	ID#	Grade	D.O.B.	Referred by
	Date Referred	Date of SAT Meeting		Follow-Up Date
	Outcome of SAT Meeting			Comment
Student	ID#	Grade	D.O.B.	Referred by
	Date Referred	Date of SAT Meeting		Follow-Up Date
	Outcome of SAT Meeting			Comment
Student	ID#	Grade	D.O.B.	Referred by
	Date Referred	Date of SAT Meeting		Follow-Up Date
	Outcome of SAT Meeting			Comment
Student	ID#	Grade	D.O.B.	Referred by
	Date Referred	Date of SAT Meeting		Follow-Up Date
	Outcome of SAT Meeting			Comment

Student	ID#	Grade	D.O.B.	Referred by
	Date Referred	Date of SAT Meeting		Follow-Up Date
	Outcome of SAT Meeting			Comment
Student	ID#	Grade	D.O.B.	Referred by
	Date Referred	Date of SAT Meeting		Follow-Up Date
	Outcome of SAT Meeting			Comment
Student	ID#	Grade	D.O.B.	Referred by
	Date Referred	Date of SAT Meeting		Follow-Up Date
	Outcome of SAT Meeting			Comment
Student	ID#	Grade	D.O.B.	Referred by
	Date Referred	Date of SAT Meeting		Follow-Up Date
	Outcome of SAT Meeting			Comment
Student	ID#	Grade	D.O.B.	Referred by
	Date Referred	Date of SAT Meeting		Follow-Up Date
	Outcome of SAT Meeting			Comment
Student	ID#	Grade	D.O.B.	Referred by
	Date Referred	Date of SAT Meeting		Follow-Up Date
	Outcome of SAT Meeting			Comment

Note: Reproduce additional copies of this page to continue log.

Primary Progress Report

First Term

Student Name: _____ Grade: _____

Learning Outcomes

Progress 4=Exceeding Expectations 2=Approaching Expectations

Levels 3=Meeting Expectations 1=Not Yet Meeting Expectations

Language Arts

Reading Outcomes

Level

- Reads orally with fluency and few errors _____
- Retells events from a story in proper sequence _____
- Describe the main idea of a story _____
- Identifies the main information in pictures _____
- Reading progress in relation to the learning outcomes _____

Writing Outcomes

Level

- Identifies misspelling of commonly used words _____
- Uses punctuation and capitalization properly _____
- Sorts and organizes information on a specific topic _____
- Keeps a personal journal of daily events _____
- Progress in writing in relation to the learning outcomes _____

Speaking and Listening

Level

- Speaks in turn (puts hand up) _____
- Follows simple instructions _____
- Attends to stories and is able to respond to questions about the story _____
- Progress in speaking, signing and listening in relation
to the learning outcomes _____

Mathematics**Level**

- Counts orally by 1's to 30, 2's to 10, 5's to 30, and 10's to 100 _____
- Can add and subtract numbers up to 1000 _____
- Identify number and non number patterns and reproduce them _____
- Estimate the size of objects using standard and non-standard units _____
- Can collect and organize number information _____
- Progress in mathematics in relation to the learning outcomes _____

Science**Level**

- Safely carries out simple experiments and procedures _____
- Describes the characteristics of different plants and animals _____
- Draws simple conclusions from what is seen _____
- Identifies the stages in the life cycles of a plant _____
- Progress in science in relation to the learning outcomes _____

Social Studies**Level**

- Identifies different occupations in the community _____
- Describes how individuals in a community can help each other _____
- Describes and compares natural and human built environments _____
- Draws a simple map and understands how to use it _____
- Progress in social studies in relation to the learning outcomes _____

Physical Education**Level**

- Participates in physical education activities _____
- Understands the safety rules and follows instructions _____
- Understands the rules of game and is able to play the game _____
- Demonstrates the ability to throw an object at a target with accuracy _____
- Progress in P.E. in relation to the learning outcomes _____

Fine Arts

Level

- Produces two dimensional drawings that include some detail
- Completes art projects in a timely manner
- Progress in visual arts in relation to the learning outcomes

Work Habits

Level

- Shows a positive attitude towards learning
- Demonstrates consistent effort
- Focuses on tasks
- Begins learning activities with little support from the teacher
- Progress in work habits relative to expectations

Social Responsibility

Level

- Cleans up area when finished using materials
- Treats classmates fairly and respectfully
- Able to identify simple ways to improve the classroom
- Progress in social responsibility

Here are some ways to support learning at home :

Teacher's Signature _____ Date _____

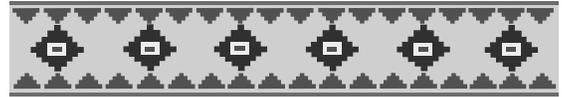
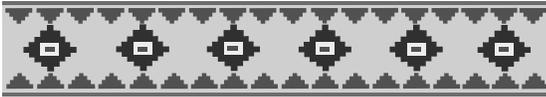
Principal's Signature _____ Date _____

Parent/ Guardian Copy: Keep this copy for your records.

Write your comments on the report card cover, sign it, and return to your child's teacher.

Note: Attendance information and instructions to parents are on the report cover.

PARENT AND CHILD RIGHTS IN SPECIAL EDUCATION PROCEDURAL SAFEGUARDS NOTICE



New Mexico Public Education Department—Special Education Bureau
120 South Federal Place, Room 206, Santa Fe, New Mexico 87501

About Special Education

Special Education is instruction, supports, and services designed to meet the needs of children who have one or more disabilities as defined by federal law. The Individuals with Disabilities Education Act (IDEA), Part B regulations at 34 CFR Sec. 300.8, defines thirteen categories of disabilities: autism, deafness, deaf-blindness, hearing impairment, mental retardation, multiple disability, orthopedic impairment, other health impairment, serious emotional disturbance, specific learning disability, speech or language impairment, traumatic brain injury, and visual impairment, including blindness. It is important to note that not all students who have a disability, or who are struggling qualify for special education supports and services. To be eligible for special education supports and services, the child must meet two requirements. First, the child must be found to have a disability as defined by the IDEA. Second, the disability must affect the child's ability to learn and progress in the same educational program or setting provided for all students. The purpose of special education supports and services is to help a child to learn the information and skills that all children are learning.

Procedural Safeguards

Procedural Safeguards are procedures designed to protect legal rights for the student and parent. You as a parent or guardian play a vital role in your child's education. A federal law called the IDEA ensures that all children with qualifying disabilities have the opportunity to receive publicly funded special education supports and services. The law also requires districts to inform and include parents in the educational decisions made regarding their child's educational needs. Under the IDEA, the child's and the parents' rights are spelled out and protected. One of the requirements of the IDEA is to provide the parent with this document. It is designed to inform the parent of the policies set by federal regulations and state rules that apply to everyone responsible for the education and welfare of a child—districts and other public education agencies, teachers, service providers, and the family. All listed share the common goal of providing the child with his or her right to a Free Appropriate Public Education (FAPE).

Note: The term "district" includes any public education agency responsible for providing special education supports and services and/or related services.

The term "special education supports and services" includes related services such as speech language services, occupational therapy, physical therapy, counseling, etc.

Decision Makers under the IDEA

With a rare exception for children who are incarcerated, the IDEA requires that every child who is below the legal age of adulthood (18 in New Mexico) must have an adult available to make educational decisions and protect the child's legal rights. Usually that person is a natural or adoptive parent. If no parent is available, the adult decision-maker may be any of the following:

- A person acting in the place of a parent, such as a grandparent
- A stepparent, or other relative that the child lives with
- A legal guardian (but not the state if the child is in state custody)
- A foster parent who is willing to make educational decisions required of parents under the IDEA
- If none of the above is available, a surrogate parent who is appointed by the district to make educational decisions and protect the child's educational rights

All of the above are included in the IDEA's broad definition of a "parent."

In New Mexico, children become legal adults at age 18. Under the IDEA, they are then entitled to make their own educational decisions and protect their own rights unless the courts have declared them incompetent and appointed guardians for them. Unless this is completed before the child's 18th birthday, the child will automatically have all rights and responsibilities of adulthood when he or she reaches the age of 18. The district will inform the parent of the laws and options regarding transfer of rights before the child's 18th birthday.

Note: In the rest of this document, for simplicity, the terms "parent" or "you" includes any of the above kinds of decision-makers for a child or a student who is 18 or older and has not graduated from high district.

An Overview of the Special Education Process

In the United States, all states provide a FAPE to every child. Districts provide a general curriculum designed to meet the needs of most children and prepare them to function as independent adults and participate in their community. Districts must provide special education supports and services to students with a disability, who need these supports in order to learn and reach these same goals. It is the goal of IDEA to provide supports and services to students in the Least Restrictive Environment (LRE), alongside students without disabilities.

Decisions about a child's program and/or placement are not simple. Districts must follow a process outlined in the IDEA. It takes a team of people, which includes the parents or guardians, using their combined knowledge and expertise to make decisions that are in the best interest of the child. The child is also included whenever appropriate. The district must invite the child to participate if he or she is 14 or older and the purpose of the meeting is to discuss post-secondary goals, and the transition services needed to reach those goals.

The Special Education Process

To understand your role and rights in the decisions made for your child, it may be helpful to first look at how the special education process works. Please refer back to this page later as needed when reading about your rights.

Step One:

PREREFERRAL/REFERRAL INTERVENTIONS: The district or the parent refers the child for consideration of a possible need for special education supports and services. Districts must provide screening and interventions through a Student Assistance Team (SAT) child study process before referring a child for a full special education evaluation, unless a student has an obvious disability or a serious and urgent problem.

Step Two:

INITIAL EVALUATION: The child is evaluated. This may involve formal testing, observations, or even outside specialists. Parents must give written informed consent before an initial evaluation or a reevaluation can begin.

Step Three:

DETERMINE IF ELIGIBLE: Based on all the information gathered, a group of qualified professionals and the parent determine whether the student is eligible for special education supports and services. A student may be found to be eligible for services because he or she has a defined disability that directly affects learning. The student may be ineligible because the disability does not directly affect learning, or there is no evidence that a disability exists.

Step Four:

IEP DEVELOPMENT: If the child is found eligible, a team meets to develop an Individualized Education Program (IEP). The IEP is the master plan for the child's special education supports and services, such as speech therapy or physical therapy, that the child needs to benefit from instruction. The district must invite the parent(s) to the meeting, and provide opportunities for parent(s) to participate as members of the IEP team.

Step Five:

IEP IMPLEMENTATION: Parent consent is required before beginning any special education supports and services. Once the plan is developed, the district implements the IEP.

Step Six:

IEP REVIEW/REVISION: The IEP team, which includes the parent(s), must formally review the child's IEP at least once a year. The IEP team may review the IEP more often if necessary, as requested by the district, or if requested by the parent(s).

Step Seven:

REEVALUATION: The district must reevaluate a child receiving services at least every three years unless the parent and the district agree that a specific reevaluation is not needed.

Step Eight:

DETERMINE IF ELIGIBLE: The IEP team must reexamine and determine if the child continues to be eligible after a reevaluation, as stated in steps two and three.

Step Nine:

Exit from Services or Continue Services: If the child is eligible, the IEP team begins again at step four. If the child is not eligible, he or she exits the program.

The following sections will explain more details regarding the rights of the child and the parent in the special education process.

Prior Written Notice of Proposed Action

Prior Written Notice (PWN) is a written notice that the IDEA requires the district to give to the parent(s). This notice must be provided after the IEP meeting, and before the district takes or refuses to take any action regarding:

- evaluating your child to determine eligibility for special education supports and services; or
- initiating and/or changing the special education supports and services provided for your child, including IEP development or changes.

The district is required to inform the parent(s) before the district can formally evaluate or reevaluate your child, beyond the requirements for all students, before the district identifies or refuses to identify your child as needing special education supports and services, and before the district can change your child's existing IEP.

The PWN must include:

- the action the district proposes or refuses to take;
- the reasons for its decision;
- other options that have been considered by the IEP team and the reasons why those options were rejected;
- a description of the information the team used to arrive at its conclusion;
- a notice of Procedural Safeguards or information about how to obtain a copy;
- sources for parents to contact to receive help in understanding their IDEA rights; and
- a description of other factors that are relevant to the district's proposal or refusal.

The district must provide the parent(s) the PWN in a manner that is understandable and in the parent's native language or other mode of communication, unless it is clearly not feasible to do so. In certain cases, the notice may be given orally through a translator or other mode of communication.

Actions Requiring Parent's Consent

Whether you are a parent, guardian, or adult student, it is important that you know and understand the information given to you regarding what the district plans to do or not to do, so that you can participate fully in making decisions. The district must obtain your informed consent in writing before the district can evaluate or reevaluate your child for special education, and before it can provide your child with special education supports and services. By signing your name on the consent form, you are stating that you understand, give permission, and agree with the action for which consent is required. It is important to let the district know if you do not understand or have questions.

Keep in mind that you and the district may have a difference of opinion. If you decide that you do not agree and do not give your consent for the proposed actions as stated, you can request a new IEP meeting, a facilitated IEP meeting, mediation, or an impartial due process hearing to resolve the difference of opinion. For more information on resolving differences, see page nine.

Student Records

The IEP team may use your child's school records as one source of information when determining your child's eligibility for special education supports and services. You the parent, or someone who has your permission, can inspect and review your child's records kept by the district. You can review your child's records 1) before any meeting involving your child's IEP; or 2) before a due process hearing. You can request to review the records at other times, but the district has up to 45 days to honor your request. You can also request a copy of the records, but the district may charge you a reasonable fee unless the fee would prevent you from acquiring a copy. Note that there may be certain instances in which the district will not allow viewing of full records. This may occur if there are names or information about individuals other than your child in the record, or if authorities direct the district to exclude certain people from viewing the records.

You or your authorized representatives are entitled to have the district explain anything in your child's records that you do not understand. If, after reviewing the records, you feel there is incorrect information or something that violates the privacy rights of your child, you can ask the district to amend the records. If the district refuses to amend the records, you may file a request with the district for a formal hearing to challenge the contents of the records. You can also ask to have records destroyed once they are no longer needed for educational purposes.

The district is responsible for keeping student records confidential. Parents may review their child's records kept by certain district personnel. Districts must transfer educational records when your child moves to a new district.

Educational Evaluation

It is unfair for one person or a group of individuals to decide who is and who is not eligible for special education supports and services, based solely on their "feelings" or "impressions" of a student. Though some subjective data is useful, such as direct observations by parents or trained observers, there must also be an evaluation that uses objective, measurable information concerning the student's levels of performance, strengths, and weaknesses. An evaluation can offer information about a child, such as a score on a vocabulary test or a rating on a physical exam. An observation or opinion can add insight into the "how's and why's" of a child's performance. During an evaluation these are examined together, which helps paint a picture of the whole child—strengths, skills, abilities—and this helps the IEP team to better address the child's needs. This information is gathered by assessments or tests performed by an education diagnostician. By combining and analyzing the various types of information collected and drawing conclusions based on all of the information gathered—both fact and opinion—the result is a more comprehensive picture of the student's abilities and skills.

If the district or you suspect that your child has a disability, and of possibly needing special education services, the district will need more information in order to be able to make that determination. If your child is already receiving special education supports and services, and a review is due or requested, the district will want to do a reevaluation. In either case, this may involve any number of different types of assessments and/or observations, depending upon the information the district needs to gather about your child. The district will give the parent(s) a Prior Written Notice (PWN) of the district's intent to evaluate or reevaluate the child and identify the assessment tools the district will use. The district will ask for your consent to conduct the evaluation, and you will receive a copy of the results.

Evaluation “Safeguards”

The evaluation process is important because the conclusions drawn from the evaluation are likely to determine not only if your child has a disability, but also if he or she qualifies for special education services. The facts listed below are safeguards built into the evaluation process:

- The district will inform the parent(s) ahead of time about what tests and other assessments they will use for the evaluation.
- The parent(s) must give informed written consent before any action is taken.
- The district will not discriminate against your child due to race, culture, or because of a disability. The evaluator will present tests and procedures in the child's language and/or mode of communication that will most likely yield accurate information about what your child knows and can do academically, developmentally, and functionally.
- When the evaluation is complete, the district will schedule a meeting with the parent(s) to discuss the results and conclusions drawn from the tests.
- If you disagree with the evaluation results for your child, you have the right to request an Independent Educational Evaluation (IEE) at the public's expense. An IEE is an evaluation performed by a person who does not work for the school district, but who is a qualified evaluator. The district may ask your reason for objecting to the district's evaluation but you are not required to provide an explanation. Your request should not cause unreasonable delay in the provision of an IEE at the public's expense or the filing of a due process hearing to defend the district's evaluation. If you request an IEE, the district is required to provide you with the information regarding where you can obtain an IEE and what criteria the district will use to decide whether to accept the results and pay for the evaluation. However, if the district feels that its evaluation is appropriate, it can request a due process hearing. The hearing officer decides if the district's evaluation was correct and complete. If the hearing officer decides in the district's favor, you can still get an IEE at your own expense. Any of the results from all evaluations are considered in planning your child's program. The IEE can be used as evidence in a due process hearing.

Individualized Education Program (IEP)

The evaluation is how the district and parent decide if your child has a disability, and if your child qualifies for special education supports and services. If it is determined that your child meets the criteria for special education supports and services (see page three), the next step is to develop an IEP for your child.

An IEP is a written statement of the educational program designed for a student to meet his or her needs. Every child who receives special education services must have an IEP. The IEP has two general purposes: 1) to set reasonable annual learning goals for your child; and 2) to state the supports, services, and classroom environment the district will provide to help achieve the annual goals.

An IEP will state:

- your child's present levels of academic achievement and functional performance;
- annual goals and how progress will be measured;
- what special education and related services will be provided, including how often and by whom;
- to what extent the child will participate with other students in the general curriculum;

- what modifications, if any, will be used for instruction; assessment information, and,
- As appropriate, transition services (pre-planning for high school and beyond).

The IEP is developed by two parties—the parent and the school team. Each person who participates in the development of the IEP has information or insight about the child that will contribute to designing a program that is appropriate for him or her. Because you are the person who knows your child best, your active participation and input is very valuable.

IEP team participants will vary depending on the needs of the child. Generally, participants will include:

- the parent(s);
- at least one regular education teacher if the child is likely to be participating in the general educational program and environment;
- at least one special education teacher or specialist;
- one or more qualified district representatives;
- your child if appropriate, and;
- anyone else the parent or the district invites who may have special expertise or knowledge about your child.

An IEP Meeting

An IEP meeting is not the same as a parent-teacher conference where you discuss your child's progress or needs. The IEP meeting is a formal gathering of a team of people for the purpose of setting annual goals for your child and determining what supports he or she needs to achieve them. Because of the scope and importance of the meeting, the district will make every reasonable effort to involve the parent(s), including providing an interpreter if needed, or person who can present the information in a manner that the parent can understand. An IEP meeting is needed when there are plans to do any of the following:

- make decisions about a child's initial plan for special education supports and services
- significantly change or review an existing IEP (an IEP must be reviewed at least once a year)
- change or review the child's program or placement
- evaluate or reevaluate a child
- whenever the parent(s) request it

As mentioned, you are an important member of your child's IEP team. When scheduling a meeting, the district will make every effort to inform and invite the parent(s) to participate in the development of the IEP. You will receive written notice of an upcoming meeting. If you want to participate but cannot attend at that time, let the district know that you want to reschedule the meeting. If you cannot attend for other reasons or do not respond, the district will attempt to involve you in other ways such as telephone conferences, home visits, or delivering written information for your review. If unsuccessful after trying in earnest to include you, the district can have the meeting without you and mail your child's IEP and the district's Prior Written Notice (PWN) of its proposed action. The district provides the PWN so that you can review the IEP before any program begins and gives you the opportunity to disagree with the district's plans for your child.

Discipline

To function as a safe learning community, districts must have Rules of Conduct. Under the IDEA, children with disabilities may be suspended or placed in alternative settings to the same extent that these options would be used for children without disabilities. However, certain conditions apply regarding students with identified disabilities who are receiving special education supports and services: (Note: these conditions do not apply to students in New Mexico identified as gifted.)

- A child with a disability may be suspended for 10 days or less during a district year according to the same procedures that apply to all students. The district is not required to provide any educational services during the first 10 days of removals.
- If a child with a disability is suspended for more than 10 days during a district year, the district must provide services that will allow the child to continue to progress in the general curriculum and advance toward his or her IEP goals.
- If a child is removed from his or her IEP placement for more than 10 consecutive days during a school year (or when the removal otherwise represents a change of placement), a meeting must be held to determine if the undesirable behavior is directly related to or caused by a disability, or directly related to a failure by the district to implement the IEP. If the behavior is caused by a disability or if the district has failed to implement the IEP, the child may not be suspended or expelled and the IEP team must modify the child's placement or services as needed. If the behavior is not the direct result of a disability or a failure to implement the IEP, the child may be suspended or expelled according to normal procedures but the district must continue to provide services that will enable the child to progress in the general curriculum and advance toward his or her IEP goals.
- The IEP team must conduct a Functional Behavioral Assessment (FBA) and provide behavioral support services such as a Behavioral Intervention Plan (BIP) (or review the current BIP if already in place) when a child has been removed for more than 10 consecutive days in the district year or when the removal represents a change of placement.

A BIP is an individualized plan that provides specific actions for redirecting undesired behavior in a positive way. As a member of your child's IEP team, if your son or daughter requires a BIP, you will be able to give your input.

Protecting Everyone's Right to a Safe District

Educators and parents share concerns over the issues of drugs, guns, and other weapons in schools. As a result, the IDEA has expanded the authority of district personnel regarding the removal of children with disabilities who bring or have drugs or weapons on school grounds or at school functions, or who inflict serious bodily injury on another person. For the protection of everyone's right to a safe school setting, any child with a disability may be removed to a temporary placement immediately for up to 45 school days for one of these violations.

The IDEA also allows a district to ask a state-appointed due process hearing officer to move a student to a temporary placement for up to 45 school days at a time, if the district believes that the student presents a serious danger of injury to self or others in the child's current placement. The IDEA refers to these temporary placements as Interim Alternative Educational Settings (IAES). The IDEA requires that the setting be determined by the IEP team and be designed so that the child continues to receive all the special education supports and services that the IEP calls for. It also

requires the district, the parent, and relevant members of the IEP team to decide whether a child's behavior is a direct result of either a disability or the district's failure to implement the IEP, and to develop appropriate behavioral intervention services when a child is placed in an IAES for disciplinary reasons. Also, the district can report any student to law enforcement authorities for the commission of a crime. If the student is a child receiving special education services, the district can give the authorities copies of the student's special education records but only to the extent permitted by the Family Educational Rights and Privacy Act.

If the parent(s) request a hearing to challenge a manifestation determination or a disciplinary placement for your child, the child stays in the IAES until a hearing officer decides the matter or until the time for the disciplinary procedure ends, whichever comes first. In disputes over non-disciplinary placement issues and other matters, your child will remain in his or her current placement until the matter is resolved.

Educational Placement

The IDEA (federal law) and state rules gives children with disabilities the right to a Free Appropriate Public Education (FAPE). Through the IEP process, a group of knowledgeable people (including the parent) decide what educational provisions may be needed for the child based on the child's needs. The first step is to adjust or modify the child's educational program or provide extra supports, so that he or she may continue to learn alongside students in the general education program and regular classroom setting. Though it is desirable to have students with disabilities working with others their own age, and in the regular classroom, sometimes that placement is not the most appropriate learning environment for the child. The goal is to eliminate obstacles that restrict him or her. The Least Restrictive Environment (LRE) may be the regular education classroom or classrooms designated to provide special education supports and services, to providing instruction in the home, a hospital, or a setting outside the district district. The decision in every case depends on the needs of the child.

If the district plans a change of placement for your child, you will be asked to attend an IEP meeting and given the reasons why the district is proposing the change. The parent always has the right to disagree with a proposed placement. The procedures for disagreeing will be described on the pages that follow. Keep in mind that a planned placement change for the purpose of providing the most appropriate program for a child's learning is different from a temporary placement in an IAES for disciplinary reasons, as described above. An IAES is temporary. However, as indicated under "Discipline" above, certain behaviors that the IEP team decides are the direct result of a child's disability may result in a plan to change placement long-term to better serve the child.

Resolving Differences

As two parties with the same goal—to provide an opportunity for success for your child—the parent(s) and the district need to communicate opinions and concerns. This cooperative approach usually results in agreement and a smooth implementation of special education supports and services for the child. However, each child and circumstances are unique and there may be times when you and the district may not agree on the special education supports and services your child needs. Under federal law and state rules, both the district and the parents have the right to have their opinions heard and considered. The parent(s) has the right to disagree with the district's findings, plans, or actions regarding their child. Also, after considering the parent's opinions or requests, the district has the right to disagree as well.

Federal law and state rules provide several avenues for resolving differences. As they are discussed below, keep in mind that even in disagreement, the focus is the child's best interest and the outcome should be that the child is the winner.

The Avenues to Resolve Disputes

If you are in disagreement with the district on any aspect of your child's program, you have the right to be heard and your opinions considered. In many cases, differences can be resolved quickly and efficiently at the school or district level simply by asking for another IEP meeting.

Avenue One: Working Directly With District Personnel

- A.** The first option is designed to resolve a problem as soon as it arises among the people directly involved. As the first step, you should voice your concerns directly to school or district-level personnel responsible for your child's program. Ask for a new IEP meeting. In many cases, the district will gather information about the situation from all concerned and attempt to work with you to resolve the problem. You may also ask the district to provide a Facilitated IEP (FIEP) meeting, agreed upon by both parties, where a third party assists the parties in communication and problem solving to reach a consensus on the child's IEP.
- B.** An additional option is for you and the district to file a joint request with the Special Education Bureau (SEB) of the New Mexico Public Education Department (NMPED) for a mediation that is conducted by a state-assigned, state-funded, trained mediator. A mediator is trained to be objective in helping you and the district find a mutually agreeable solution to your dispute. Use of this option is voluntary, will not deny or delay any of your rights, and is intended to result in a legally binding written agreement between you and the district. The SEB will provide a mediator if you and the district jointly submit a signed, written request to the SEB in which you describe the matter(s) in dispute and any previous attempts to resolve these matters at the local level. If you and the district reach agreement about any IEP related matter(s) during mediation, it will then be necessary to hold an IEP meeting to inform the child's service provider(s) of their responsibilities under that agreement, and revise the child's IEP accordingly or develop an IEP Amendment.

Avenue Two: Contacting Available Resources for Help and Support

- A.** There may be times when you feel you need more help or support. There are many resources available to guide and help you. (Several are listed on the final page of this guide).
 - You and your family can receive advice and support by contacting parent assistance and advocacy groups in the community or state. Advocacy groups provide people to speak with or speak on your behalf with regard to ensuring that both your rights and your child's rights are being exercised and protected.
 - In addition to community support, you can receive information and guidance by accessing state and federal websites which offer extensive and detailed information for parents regarding special education supports and services.
- B.** You can also call the SEB of the NMPED and ask to speak to the Parent Liaison. This person can answer your questions or may be able to act as an unofficial go-between by calling the district in an informal attempt to resolve your concerns. You can also call or write to ask a question, or state a concern.

Avenue Three: Filing a Formal State-Level Complaint or Request for a Due Process Hearing

- A.** If you believe the district has violated some provision of your child's IEP or failed to follow the special education procedures required by law, you may file a formal complaint with the SEB. If you choose to file a formal state-level complaint, be sure to include all the information needed for a response and/or investigation. If you want an investigation or a written finding from the State, your complaint must be signed by you or your representative, be submitted in writing to the SEB State Director of Special Education, must describe your concern and what right(s) under the law or procedure(s) you think the district has violated, and must describe the facts about the complaint and what steps have already been taken to try to resolve it. If you have a complaint, you may want to first explore the dispute resolution option that will cause the least disruption of the child's education and cost you little or no money. If the SEB accepts the complaint as sufficient, it will acknowledge the complaint to the parties in writing and inform them of any available state-funded Alternative Dispute Resolution (ADR) options such as mediation or a FIEP meeting. The SEB will investigate and respond within 60 days. Based on the information gathered, the SEB will make a finding as to whether the law has been followed or not. If it finds the district is not in compliance with the law, it may direct the district to correct the action.
- B.** Sometimes you and the district may not agree about the provisions of your child's IEP or his or her placement despite honest attempts to do so. When that happens, and informal attempts to resolve such a dispute fail, you may consider the option known as a due process hearing. A request for a due process hearing is filed with the SEB. This is a legal action in which a hearing officer makes a decision based on the facts and evidence presented. Since this is a formal proceeding, several legal requirements apply and must be followed.

Your rights and responsibilities with regard to requesting a due process hearing are outlined below:

- You have the right to request an impartial due process hearing over any issue regarding the identification, evaluation, educational placement, or provision of a free appropriate public education (FAPE) of your child under the IDEA and state rules.
- To request a hearing, you must provide the request in writing to the district and SEB. The request must include complete information about the child (name, address or available contact information), and the name of school and district; a description of the problem including known facts and any efforts you and the district have made to resolve the problem, informally, before filing this request; your proposed solution to the problem; your name, address, and telephone number and that of the child's advocate or attorney, if any; a written statement that says the advocate or attorney named may represent your child; and your dated signature plus the dated signature of the advocate or attorney, if any. The request must be filed within two years of the date that you knew or should have known about the problem. The district will have an opportunity to respond in writing to your request. If you need help with this, ask the district to give you an official due process hearing request form.
- The district may also request a due process hearing to resolve a disagreement over the appropriateness of its evaluation, to request authorization to conduct an evaluation or a reevaluation when a parent refuses consent, or to ask a hearing officer to move a child to an interim alternative educational setting because his or her presence in the current placement poses a substantial likelihood of risk of injury to the child or others.
- As part of the due process procedure, the district will offer to hold a resolution session with you and other relevant members of the IEP team to address the issues raised in your request,

unless you and the district agree jointly not to do so. You will also have the option of having a facilitated IEP meeting or a mediation at state expense to see if the issue can be resolved without a due process hearing. Often a dispute can be settled simply by bringing in an impartial person trained to help the parties find a plan that is mutually agreeable to both sides. Facilitated IEP meetings and mediation sessions are voluntary.

Due Process Hearing

If you are involved in a due process hearing, whether it was initiated by you or by the district, here are some basics you should know:

- You have the right to a fair and impartial hearing before a state-appointed hearing officer who is knowledgeable about the laws governing special education and administrative hearing procedures.
- The hearing will be scheduled at a time and place that is reasonably convenient for you and your child.
- You have the right to be accompanied by an attorney and/or other individuals who have knowledge about students with disabilities.
- Upon request, the SEB will inform you of any known free or low-cost legal services and such services are listed on the final page of this guide.
- During the hearing, you or your attorney may present evidence and written and oral arguments. You may require witnesses to attend and you may also confront and cross-examine the district's witnesses. No more than five (5) business days before a hearing, you must share with the district all evaluations completed by that date, and any recommendations based on those evaluations, which you intend to use at the hearing. The district must share the same information with you. If you or the district fail to do this, the hearing officer may prohibit you or the district from using that information at the hearing.
- You may choose to have the hearing open to the public and to have your child present at the hearing.
- At any point during the proceedings you may have a mediation conference and/or the party requesting the hearing may withdraw its request.
- You should expect a written decision within 45 days of when the timeline for the hearing process began, unless the hearing officer grants an extension.
- You should expect to receive, at no cost to you, your choice of a written or electronic word-for-word record of the hearing and the hearing officer's findings and decision.
- The decision of the hearing officer is final unless either party files a civil action in a state or federal district court.
- A civil action must be filed no later than 30 days from receipt of the hearing decision.
- The findings and decisions of a hearing may be made public.
- The district pays the costs of a hearing, with the exception of attorney's fees, which are the individual parties' responsibility. In some cases, a court may award part or all of the attorney's fees to you (if you are the prevailing party) or to the district (if the district is the prevailing party and your claims are frivolous or filed for improper purposes). However, hearing officers are not authorized to award attorney's fees.
- Except for disputes over disciplinary placements and manifestation determinations, the child remains in his or her current placement during due process proceedings until a final decision is

reached, unless you and the district agree otherwise or the hearing officer directs other interim placement. Except in the case of short-term suspension (up to 10 days in a district year), the child will continue to receive special education supports and services as directed by his or her IEP.

- At the conclusion of the hearing, either party has the right to bring a civil action in a court of law with respect to the due process hearing issues. The laws governing jurisdiction and procedures will apply to any action brought before the court. If the parent prevails in the court's decision, the court may, at the court's discretion, award reasonable attorney's fees. This means that if the parents decide to take the matter to court, they must pay for the lawyer's services, and that they may or may not get full or part reimbursement of these expenses if they win the case.

Private Schools and Special Education

Public agencies are obligated to offer a free appropriate public education (FAPE) to any child aged 3–21 within their jurisdiction who meets eligibility requirements. To do that, all children within that age group must be located, and if necessary, evaluated to determine eligibility for special education supports and services. This includes children attending private schools, home schools, or no school at all, as well as public school children. However, if you chose to home school your child, under the IDEA and New Mexico law, the local district is not required to provide a FAPE for your child.

In most cases, a FAPE can be offered to a student in the public school setting. However, if it is determined by the public agency through the IEP process that a child's right to a FAPE is best served in a specialized private school, then the public agency funds that child's special education needs in the private setting.

Parents, who choose to enroll their children with disabilities in private schools without the participation of the local district in the decision regarding special education supports and services, are responsible for paying the private school tuition and costs. Though each district is obligated to spend a portion of its federal IDEA funds to assist students with disabilities enrolled by their parents in private schools, these students are not entitled to receive all the special education supports and services the child would receive if enrolled in public schools. It is up to the district to decide, on an individual basis, how much support, if any, to offer a student. Local districts will consult with appropriate representatives of private school students to determine what services will be provided and where the services will be delivered. Students with disabilities that are parentally-placed in private schools receive service under a service plan, which is different from an IEP.

Gifted Students

The procedures that relate to gifted students are the same as school-aged children with disabilities, with three exceptions. The three exceptions include: 1) child find requirements; 2) disciplinary changes of placement; and 3) transition planning.

Parent Resources

NEW MEXICO PARENT ADVOCACY AND SUPPORT GROUPS

- ARC of New Mexico (505) 883-4630
- Colfax-Citizens for the Developmentally Disabled (505) 445-5674
- Developmental Disabilities Planning Council (505) 476-7330
- Governor's Commission on Disability (505) 827-6465
- Native American Protection and Advocacy Project (505) 566-5880 or (800) 862-7271
- Parents for Behaviorally Different Children (505) 265-0430 or (800) 273-7232
- Parents Reaching Out (800) 524-5176

FREE OR LOW-COST SERVICES

- Albuquerque Bar Association Volunteer Lawyers (505) 243-2615
- New Mexico Legal Aid (505) 243-7871
- New Mexico Protection & Advocacy System (800) 432-4682

NEW MEXICO PUBLIC EDUCATION DEPARTMENT

120 South Federal Place, Room 120, Santa Fe, New Mexico 87501

Special Education Bureau (505) 827-1457

Can provide forms and assistance with filing a complaint or due process hearing and answer questions about the law. Ask to speak to a Parent Liaison.

ONLINE RESOURCES IN SPECIAL EDUCATION

For more information about the topics in this guide or other issues regarding special education, extensive help and guidance is available online.

- The website of National Dissemination Center for Children with Disabilities at www.NICHCY.org is a comprehensive source for administrators, educators, and parents.
- The National Disability Rights Network: Protection & Advocacy for Individuals with Disabilities at www.ndrn.org is a non-profit membership organization for the federally mandated Protection and Advocacy (P&A) Systems Client Assistance Programs (CAP) for individuals with disabilities.
- Built on the concept of "parents helping parents," the Pacer Center, Inc., (Parent Advocacy Coalition for Educational Rights) at www.pacer.org offers a wide range of materials, information, and assistance to families.
- The information presented at www.pbis.org by the Center on Positive Behavioral Interventions and Support is available in both English and Spanish.
- View the Individuals with Disabilities Education Improvement Act of 2004 (IDEA) or further explore federal regulations and issues at the *United States Office of Special Education Programs* (OSEP) www.ed.gov/about/offices/list/OSERS/OSEP.
- Obtain the New Mexico state special education rules online through the Public Education Department at www.ped.state.nm.us/seo, as well as links to other topics related to special education in New Mexico.

County of Bernalillo

State of New Mexico

**BOARD OF COUNTY COMMISSIONERS**

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ONE CIVIC PLAZA N.W. 10th FLOOR
ALBUQUERQUE, NEW MEXICO 87102
ADMINISTRATION 505-468-7000
FAX 505-462-9813

June 29, 2009

Public Education Commission
300 Don Gaspar
Santa Fe, NM 87501

Dear Sir or Madam,

Bernalillo County is currently working with the founders of the Albuquerque Sign Language Academy to assist in securing an appropriate educational facility for their charter school. The County is committed to helping deaf and hard of hearing children and their families in the greater Albuquerque area, and will serve as Fiscal Agent for any funding acquired for the charter school and Project Administrator for the facility.

If you have any questions or concerns, do not hesitate to contact my office at (505) 468-7343.

Sincerely,

A handwritten signature in cursive script, appearing to read "Julie Morgas Baca".

Julie Morgas Baca
Deputy County Manager for Community Services

xc: Thaddeus Lucero, County Manager



June 29, 2009

**Public Education Commission
300 Don Gaspar
Santa Fe, NM 87501**

Dear Sir or Madam,

The mission of Youth Development Inc. is to work with our community to create and effectively implement a results-based continuum of services assuring that children, youth, and families achieve their full potential. To that end, it is our intent to partner with the Albuquerque Sign Language Academy in order to assist them in improving outcomes for deaf and hard of hearing children and their families in the greater Albuquerque area.

Youth Development Inc. is looking forward to building new relationships with parents, teachers, and leaders in the deaf and hard of hearing community.

Sincerely,

**Chris Baca
President and CEO**



**STATE OF NEW MEXICO
COMMISSION FOR DEAF AND HARD OF HEARING PERSONS**



**Bill Richardson
Governor**

**Barbara "BJ" Wood
Interim Director**

June 23, 2009

Public Education Commission
300 Don Gaspar
Santa Fe, NM 87501

To Whom It May Concern:

The mission of the New Mexico Commission for Deaf and Hard of Hearing Persons is to provide effective leadership, education, advocacy and programs to reduce barriers to the social, economic, educational, cultural and intellectual well-being of Deaf and Hard of Hearing New Mexicans and their families, friends and colleagues.

The Board of NMCDHH Commissioners voted on Saturday, April 25, 2009 to support a parent's right to pursue the most effective educational placement for their child.

The Commissioners also support the 'Individuals with Disabilities Education Act' because it assures that all children with disabilities have a free public education including special education and assistance to meet the specific needs of the child and provides mechanisms to assess and insure the effectiveness of programs that educate children with disabilities.

On behalf of the Commission, I ask for your favorable consideration of the parents' application to begin an American Sign Language charter school in the Albuquerque area.

Thank you.

A handwritten signature in cursive script, appearing to read "BJ Wood".

Barbara Jean "BJ" Wood
Interim Executive Director

Albuquerque Office
2500 Louisiana NE, Suite 400
Albuquerque, NM 87110
V/TTY/VP: (505) 881-8824
In-State Toll-Free: 1-800-489-8536
Website: www.cdhh.state.nm.us



June 9, 2009

To Whom It May Concern:

This is a letter of support for the concept of establishing a program in the metro Albuquerque area that would provide bilingual instruction using American Sign Language (ASL) and English for Deaf, Hard of Hearing, and Hearing students. The Hands and Voices New Mexico Chapter fully recognizes the value of providing Deaf and Hard of Hearing children with high level ASL linguistic models for both the development of language and the development of positive self-identity.

The Hands and Voices New Mexico Chapter also supports the concept of family and community involvement as an integral part of a program that would serve the metro Albuquerque area as well as surrounding areas. Family and community involvement is a key feature of a successful educational program.

Sincerely,

A handwritten signature in cursive script that reads "Priscilla Shannon Gutiérrez".

Priscilla Shannon Gutiérrez
Executive Director
Hands and Voices New Mexico Chapter
P.O. Box 90813
Albuquerque, NM 87199

/psg

ASL Academy Calculation of Annual Pupil:Teacher Ratios

Year of Operation	2010-2011	2011-2012	2012-2013	2013-2014	2014-2015
Estimated Student Total	40	56	64	72	80
<u>Student Breakdown</u>					
"C" Level	10	15	16	18	20
"D" Level	25	33	40	44	50
"A", "B", and Regular	5	8	8	10	10
Number of Teachers	4	5	6	7	8
Number is EAs	3	4	5	6	7
EAs at 25% of Teacher	0.75	1	1.25	1.5	1.75
Total "Teachers"	4.75	6	7.25	8.5	9.75
<u>Students per Teacher</u>					
"C" Level	2.11	2.50	2.21	2.12	2.05
"D" Level	5.26	5.50	5.52	5.18	5.13
	7.37	8.00	7.72	7.29	7.18
<u>Calculate Special Ed. FTE</u>					
"C" Level	0.14	0.17	0.15	0.14	0.14
"D" Level	0.66	0.69	0.69	0.65	0.64
	0.80	0.85	0.84	0.79	0.78
Regular FTE	0.20	0.15	0.16	0.21	0.22
Reg Ed Allowed (22 max)	4	3	4	5	5
Max. Students/Teacher	12	11	11	12	12
Max Pupil:Teacher Ratio	12:1	11:1	11:1	12:1	12:1
Allowed School Capacity	47	56	68	84	97

For calculation purposes, the following assumptions were made:

60% of the student population is classified as "D" Level special education,

25% of the student population is classified as "C" Level special education

The remaining student population is classified as "A" and "B" Level special education and Regular education students

Teachers are all certified to teach both special and regular education (dual-certified)

Educational Assistants count as 25% of a Teacher in the formula



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 CLEARINGHOUSE ON DISABILITIES
 AND GIFTED EDUCATION

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Educating Children Who Are Deaf or Hard of Hearing: Bilingual-Bicultural Education

The ERIC Clearinghouse on Disabilities and Gifted Education (ERIC EC)

E-mail: webmaster@hoagiesgifted.org

Internet: <http://eric.hoagiesgifted.org>

ERIC EC Digest #E553

Authors: Sharon and Keith Baker

August 1997

During the last two decades bilingual-bicultural education programs (programs which recognize that children may come from a different culture and speak a different language in the home than in the school) have flourished in the United States as the ethnic composition of children attending public schools has become more diverse. In the late 1980's discussion of bilingual-bicultural education for children who are Deaf brought about new theories. (A capital D is used by bilingual-bicultural programs to identify deafness as a cultural, rather than a medical, issue. According to Schirmer (1994) "the impetus for implementing bilingual-bicultural programs for children who are deaf comes from two sources: (1) The Deaf community, who advocate for the right to pass on their language and culture to succeeding generations; (2) the overall disappointing achievement of youngsters who are deaf. (p. 98) Although small gains have been made in the levels of reading achieved by the average child who is deaf, overall achievement remains considerably lower compared to their hearing peers despite ardent attempts to teach Deaf children through Total Communication (see ERIC EC Digest E559) and oral approaches (see ERIC EC Digest E551).

Additional impetus for bilingual-bicultural programs comes from Sweden, where, in 1981, after years of grassroots activism by Deaf adults and parents of children who are Deaf, the Swedish Parliament passed a law stating that people who are Deaf need to be bilingual in order to function successfully in the family, school, and society (Mahshie, 1995).

What Does it Mean to Be Bilingual-Bicultural?

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"A person who is bicultural can move freely within and between two different cultures. Biculturalism implies an understanding of the mores, customs, practices, and expectations of members of a cultural group and the ability to adapt to their expectations" (Finnegan, 1992, p.1). Bilingualism involves the ability to use two different languages successfully. Some individuals may be stronger in one language, some in the other, some may blend the two languages into a pidgin (Maxwell, 1991). Individuals who are Deaf are considered bilingual if they are able to communicate effectively in both American Sign Language (ASL) and English or the spoken language of their country. They are considered bicultural if they are capable of functioning in both the Deaf community and the majority culture.

Although there is no standardized formula defining bilingual-bicultural programs, they are founded on a common set of principles. A basic premise of bilingual-bicultural education is that all children should develop communicative competency. This is a challenge because more than 90 percent of children who are Deaf have hearing parents or caregivers who must learn ASL as a second language.

Education programs that follow the bilingual-bicultural philosophy work with parents/caregivers to help them realize the special linguistic, educational, and social needs of their child (ren) who are Deaf and to help them realize the importance of early language acquisition. Deaf children who develop language late are less proficient than those who develop an early first language (Newport & Sapulla, 1987). Helen Neville's research at the Salk Institute's Laboratory for Cognitive Neuroscience also shows that children must learn a language during their first five years or so, before the brain's neural connections are locked in place, or risk permanent linguistic impairment (Wolkomir, 1992). "What suffers is the ability to learn grammar. As children mature, their brain organization becomes increasingly rigid. By puberty, it is largely complete. This spells trouble because most deaf youngsters learn language late; their parents are hearing and do not know ASL, and the children have little or no contact with deaf people when young." (p. 36)

Since it is the grammar of languages that distinguishes them most significantly from one another (most spoken languages have similar pragmatic or social functions and similar sound systems), the early assault on the ability to learn grammar makes the development of a sound language system even more compelling.

Bilingual-bicultural programs differ from other programs most notably by their approach to first language acquisition. While bilingual-bicultural programs have respect for both ASL and English, these programs advocate for ASL to be the first language of children who are deaf. "Research has shown that effective language has to be fast and clear. ASL is an efficient language for visual learning and is easier for Deaf children to acquire as a first language than any form of English" (Finnegan,

1992, p. 7). Johnson, Liddell, Ertling (1989) stated that ASL is the language choice of adults who are deaf, and it offers access to the school curriculum and other world knowledge. A solid foundation in a first language leads to better English performance over time, and skills transfer from one language to another.

Teaching ASL as the first language for Deaf children has additional benefits. ASL is the language of Deaf people throughout the United States. Proficiency in ASL automatically allows membership in the Deaf community and in cultural events that occur in communities where Deaf people live. This membership is vital to Deaf children because it promotes a healthy view of who they are as human beings and increases self-esteem and confidence in their abilities to interact in a wide array of situations.

The bilingual-bicultural approach recognizes that ASL and English are two distinct languages in the same way that, for example, French and German are distinct languages. ASL is a complete language with its own grammar, syntax, and rules for interaction. Signing ASL and speaking English cannot be performed simultaneously with a great degree of success; therefore, when signing ASL one should not attempt to speak English. Speaking English when signing deteriorates the visual signal resulting in an inferior production of signs as well as inferior use of spoken English. The goal is clear and proficient production of ASL.

Proponents of the bilingual-bicultural approach believe that Deaf children are not deficient. Instead of being auditory learners, they are visual learners. Deaf children do not need remedial teaching strategies because the bilingual-bicultural program provides a unique visual learning environment in which their linguistic, cultural, and social needs are met. Deaf teachers, administrators, and support staff are considered valuable components of the bilingual-bicultural program. The bilingual-bicultural approach does not support mainstreaming Deaf children in regular education programs. Many Deaf adults have shared their stories of isolation and academic deprivation while attending schools for children who can hear. The bilingual-bicultural approach holds that cognitive, linguistic, and social competence are best achieved in environments that provide full communicative access to the curriculum.

Who Can Choose a Bilingual-Bicultural Option?

Proponents of the bilingual-bicultural option feel that all children, no matter what their degree of hearing loss, would benefit from a bilingual-bicultural option. However, it is most likely that these programs will exist separate from the mainstream education agencies and buildings. Some may be residential, some may be day schools. Parents or caregivers who feel that this approach is appropriate for their child should call the residential school for

Deaf children in their home state. Although a growing number of schools for children who are deaf have adopted bilingual-bicultural programming, families in rural areas may not have access to this approach.

What Are the Benefits of a Bilingual-Bicultural Option?

There are several benefits of bilingual-bicultural education. Early access to comprehensible language fosters early cognitive development which, in turn, promotes increased literacy and greater academic achievement. Students who attend bilingual-bicultural programs develop functional skills in two languages. The emphasis on early language acquisition and establishing a first language (ASL) provides a base upon which English is subsequently taught. Students in bilingual-bicultural programs have increased self-esteem and confidence due to the healthy view of Deaf children, acceptance of who they are as human beings, and increased confidence to function in bilingual-bicultural environments.

What Are the Limitations of a Bilingual-Bicultural Option?

Bilingual-bicultural programs in the United States are still relatively new. Limited data are available regarding students' achievement in these programs. As schools begin bilingual-bicultural programs, schools may have difficulty recruiting native signers of ASL because their numbers are limited. Further, while staff may have excellent skills in signed English, they often do not have proficient ASL skills and must be retrained. Some opposition may result in this effort. At this time, most university education programs continue to prepare teachers of the deaf in the philosophy of Total Communication. Generally, the level of sign language proficiency required by most universities, states, and certifying agencies is inadequate.

Lack of ASL classes for parents or caregivers, especially in rural areas, may severely restrict communication in the home. Without fluent language models, Deaf children's language will be developed neither optimally nor naturally.

What Are Some Questions to Ask in Choosing a Bilingual-Bicultural Option?

- How many of the educational staff are native ASL signers and/or fluent ASL signers?
- How are signing skills evaluated?
- How is English developed?
- When is English introduced in the curriculum?
- What support is given to parents or caregivers to learn ASL?
- How are children who developed language late or have limited language proficiency treated in this type of program?
- How does the curriculum compare to that of hearing

children?

- Where do you recruit staff?
- How will I know if my child is progressing adequately?

References and Additional Resources

Bicultural Center, 5506 Kenilworth Ave., Suite 105, Riverdale, MD 20737-3106, (301) 277-3945 (V); (301) 277-3944 (TTY).

California School for the Deaf, 30350 Gallaudet Dr., Fremont, CA 94538, (510) 794-3666 (V/TTY).

Finnegan, M. (1992). Bilingual-bicultural education. *The Endeavor*, 3, 1-8. The American Society for Deaf Children.

Johnson, R., Liddell, S., & Erting, C. (1989). *Unlocking the curriculum: Principles for achieving access in deaf education*. Washington, DC: Gallaudet University.

Learning Center for Deaf Children, 848 Central St., Framingham, MA 01701, (508) 875-5110 (V/TTY). Mahshie, S. (1995). *Educating deaf children bilingually*. Washington, DC: Gallaudet University Press.

Maxwell, M. (1991). Characteristics of a successful bilingual program. In *Proceedings of the New Orleans CAID/CEASD Convention*.

Newport, E. & Sapulla, T. (1987). A critical period effect in the acquisition of a primary language. Unpublished manuscript.

Schirmer, B. (1994). *Language and literacy development in children who are deaf*. New York, NY: Macmillan Publishing Co.

Wolkomir, R. (1992). American Sign Language: It's not mouth stuff -- it's brain stuff. *Smithsonian*, 23 (4), 30-41.

Sharon Baker, Ed.D., is Assistant Professor of Deaf Education at the University of Tulsa, Tulsa, Oklahoma. Keith Baker, profoundly deaf since birth, teaches at the Metro Deaf School, St. Paul, MN, a bilingual-bicultural charter school for children who are Deaf.

[Top of Page](#) [Back to ERIC Menu](#) [Back to Hoagies' Gifted Education Page](#)

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Running Head: TEACHER EXCELLENCE: GENERAL AND DEAF EDUCATION

Teacher Excellence in General and Deaf Education

Catherine Banks, Valdosta State University

December 20, 2005

The professional literature on what it means to be a Master Teacher of excellence of deaf and hard of hearing students is not as extensive as the research outlining the needed characteristics of an effective teacher in general education. Salter (2001) states in his research that “good teaching, it turns out, is universal” (p. 116). Thus, by combining and reviewing the research on both excellent teaching of general education and deaf education (but focusing on the latter), a description of a Master Teacher of the deaf can be formulated.

This recent research is mostly focused on how to better serve the student. Necessary characteristics of the teacher include attitude, behavior, skills in instruction, and good communication. These create the most effective skills that can be used to serve the student inside and outside the classroom whether they are deaf, hard of hearing, or hearing.

The broader approach to what it takes to be an effective teacher of general education students is taken by Salter (2001) as he identifies sixteen characteristics or behaviors that all great teachers possess. These traits include: (a) have prior knowledge of your students’ talents, prior experience, and needs; (b) create a safe environment where learning is emotional, intellectual, and psychological; (c) have passion for the material and for teaching; (d) tell students the instructional goals and objectives; (e) have the ability to communicate complex ideas by breaking them down and making them understandable; (f) acknowledge that you don’t know everything and that teachers do make mistakes; (g) know yourself so that you can know your students more thoroughly; (h) repeat the important parts during instruction; (i) ask good questions; (j) teach students not only the right answers but how to think; (k) have good listening skills; (l) know what to listen for from your students; (m) encourage student interaction; (n) understand that every student learns differently and adapt accordingly; and (o) develop a trusting, solid relationship with the students (Salter, 2001).

In her article, Brighton (2002) recognizes the growing challenge of implementing the best practices while considering the growing focus on final assessment scores. She points out that best practices, combined with test practices, can exist together; it takes determination from the teacher and support from the administration. To accomplish this balance of testing and instruction, a wise teacher must consider the standards and use these essential elements to shape their instructional unit (Brighton, 2002). In order to keep the standards and the instructional objectives in line, Bafumo (2005) writes that it takes organization. To be an effective teacher, he/she must be organized with high-quality lesson plans and have efficient time management skills (Bafumo, 2005).

According to Aylor (2003) and other research results, communication is an essential element of teaching and a critical skill for an excellent teacher. Through the Communications Functions Questionnaire (CFQ), Aylor (2003) identifies eight communication skills which include, (a) *conversational skill*, the ability to initiate and maintain enjoyable conversations; (b) *referential skill*, the ability to convey information clearly and concisely; (c) *ego supportive skill*, the ability to make a person feel good about themselves, their goals, and their ideas; (d) *comforting skill*, the ability to help a person in times of emotional distress; (e) *conflict management skill*, the ability to reach mutually satisfying solutions to conflicts; (f) *persuasive skill*, the ability to change a person's attitudes, beliefs, and/or behaviors; (g) *narrative skill*, the ability to entertain through storytelling; and (h) *regulative skill*, the ability to help someone realize their mistakes and correct them. In this research study, the students were also asked to rate the communication skills in order of importance. All but the comforting skill listed above was included in the rating because the students did not feel that skill was absolutely necessary for teaching. The resulting order was referential, ego supportive, regulative, conversational, conflict

management, narrative, and persuasive. Through efficient communication, relationships are formed, and when used and built upon by the facilitation of the teacher, many great things can happen in the classroom (Aylor, 2003).

Through her research, Aylor (2003) recognizes that effective teachers care about their students' feelings, self-image, goals and emotional stability. When this occurs, students report more cognitive and affective learning. There are two dimensions of a teacher/student relationship identified: content and relational. This author notes that teachers should understand that the content and relational dimensions of the relationship with their students are interdependent, striving off one another. That fact can be used to their advantage in teaching and facilitating interactions in order to maximize on learning opportunities (Aylor, 2003). At the end of the day, the assessments and records display the progress.

Assessments can be reported and used to benefit all parties involved, (teacher, student, and parent), but the teacher must know how to use them in that manner (Anonymous, 2002). The anonymous author of an article in *Scholastic Early Childhood Today* states, "Effective teaching of young children begins with thoughtful, appreciative, systematic observation and documentation of each child's unique qualities, strengths, and needs" (Anonymous, 2002, p. 15). According to this same author, there are specific assessment skills that well-prepared teacher should have. They include: (a) being able to communicate the results to parents; (b) knowing a wide range of assessment tools and approaches to align with educational goals; (c) creating opportunities to observe both formally and informally especially with infants and toddler; (d) having the ability to conduct, interpret, and reflect on the assessment; (e) possessing the knowledge of definitions and jargon; (f) having the ability to point out and limit test weaknesses

and limitations; and (g) understanding and practicing responsible assessment techniques, ethically grounded, collaborative, and guided by professional standards (Anonymous, 2002).

Now that the research about excellent teachers in general was discussed above, the research on the behaviors, skills, and attitudes of excellent teachers of the deaf and hard of hearing will be discussed thoroughly so that the purpose of the paper can be fulfilled which is to put all research together in order to display what really constitutes a master teacher of students who are deaf and hard of hearing.

Even more so than in general education, the mode and effectiveness of communication has always been a topic of debate and concern in the field of deaf education. The sign skills of the teacher have been the major factor in determining the effectiveness of communication in the classroom, but the recent research says differently. According to Smith and Ramsey (2004), Long, et. al (1999), and Mayer, Akamatsu, and Stewart (2002), effective communication and instruction is not solely dependent on the teacher's sign skills rather the manner in which they use the language as a "linguistic resource in classroom discourse" (Mayer, Akamatsu, & Stewart, 2002, p. 486) to encourage student participation. Not only do the overall sign skills of the teacher bear little weight, the teacher's hearing status has little effect as well. The results of the research done by Roberson and Serwatka (2000) show that although the deaf students associated more effective behaviors to the deaf teacher, the actual achievement level of students is not affected by the hearing status of the teacher.

Steering again away from the teacher's sign skills, Luckner and Howell (2002) discuss the importance of the teacher's interpersonal communication skills. They believe that it is most crucial to have the ability to communicate with the families of the students and with other professionals.

As stated by Mayer, Akamatsu, and Stewart (2002), there is a threshold level of sign proficiency needed for meaningful dialogue to occur, but they also say the overall quality and effectiveness of the interaction is a better way to measure effective teacher communication. Interaction is made and mediated through the use of language – signs and other tools of communication, and Mayer, Akamatsu, and Stewart (2002) name this type of purposeful, educational interaction *dialogic inquiry*. Dialogic inquiry is constructed by three understandings the teacher must have. Mayer, Akamatsu, and Stewart (2002) list these understandings as the following: (a) “learning is a social, interactive enterprise in which the teacher and the learner interdependently co-construct meaning, (b) this joint meaning making is mediated through language, through classroom conversations that occur within the context of meaningful, purposeful activity; and (c) the interaction is dependent on the ability of the teacher to work in a contingently responsive manner with the student” (p. 487). This author goes on to say that teachers who are comfortable in their manner of communication will be more equipped to communicate effectively with their students (Mayer, Akamatsu, & Stewart, 2002).

As mentioned above, sign skills are not the primary focus within recent research to describe excellent teachers, but they are still considered an important part of what describes a master teacher of the deaf and hard of hearing. Also stated above, interactions are the primary means of learning, and Long, et. al (1999) correlate the success of the interaction to teachers with higher-level skills in both expressive and receptive sign language. American Sign Language (ASL) is one option for use in the classroom that is encouraged by some researchers. Smith and Ramsey (2004) found in his research some benefits of fluent ASL use in the classroom. When comparing teachers using different modes of sign language during instruction and storytelling, he found that the teacher using ASL elicited more participation from the students through question

asking, classifier predicates, role-playing, and the full range of ASL morphology. “Fluent signers can smooth out rough spots and ensure coherence in the discourse” (Smith & Ramsey, 2004, p. 56).

Since the focus of the research is more on how the teacher affects the student, the students’ opinions of the teacher’s communication skills were researched and reported in the article by Long, et. al (1999). Student rating of communication ease was higher for teachers with higher scores on their Sign Communication Proficiency Interview such as Superior through Intermediate Plus rather than lower scores of Intermediate through Novice (Long, et. al, 1999). Long, et. al (1999) also found that students felt if they understood their teacher, their teacher could understand them. To fully participate and learn as active, engaged learners, deaf and hard of hearing students need to feel at ease in communicating with their teacher and other students through comfortable, reciprocal communication. Through this effective communication exchange, teacher/student interactions occur as a bridge to learning (Long, et. al, 1999).

The importance of classroom discourse is seen throughout a lot of the research. There are positive occurrences that result from meaningful discourse such as, learning to make meaning and sense of the world around them and the development of thinking skills (Mayer, Akamatsu, & Stewart, 2002). To facilitate the classroom discourse, there are many skills and behaviors that the teacher must possess and use. Smith, Akamatsu, and Stewart (2004) believe that the classroom atmosphere must be flexible and free, and to accomplish this, experienced teachers will exhibit less-controlling behaviors with a relaxed attitude while maintaining control and showing an ability to head off problems. They discovered there is a high negative correlation to the amount of control taken by the teacher to the amount of complex language used by the

students. Also, having inadequate and non-fluent language skills will pose a problem to maintaining this type of classroom atmosphere (Smith, Akamatsu, & Stewart, 2004).

In regards to communication in discourse, Smith, Akamatsu, and Stewart (2004) state several strategies and skills that excellent teacher possess. These strategies are the following: (a) encourage further comments while boosting student confidence and extending interaction; (b) develop increased sensitivity to students' perceptions of the quality of communication in class; (c) give greater attention to variations in communication needs of the students; and (d) put greater effort into developing teaching strategies for effective interactive communication.

To be considered a master teacher of the deaf, there are also teaching behaviors and strategies that are encouraged, if not expected, relating to communication in instruction. Mayer, Akamatsu, and Stewart (2004) encourage the constructivist teaching approach because it utilizes communication using symbols and signs to allow individuals to eventually become independent in regulating their own language and behaviors. Instructional conversations can be used in the classroom to “support, guide, and assist the learner in achieving fuller participation and understanding” (Mayer, Akamatsu, & Stewart, 2002, p. 487). Greenspan (2003) delves a little deeper and with more specificity by stating the importance of using multiple channels to communicate with the child during instruction, including much visual support. Mayer, Akamatsu, and Stewart (2002) describe other exemplary practices to facilitate language and communication which include, but are not limited to, (a) taking the learners' best attempt as the starting place; (b) inviting suggestions and opinions; (c) requesting explanations, clarifications, justifications, and amplifications; (d) encouraging learners to take risks and express their own points of view; and (e) shaping instruction into meaningful and purposeful language activity (Mayer, Akamatsu, & Stewart, 2002). Mayer, Akamatsu, and Stewart (2002) sum up exemplary

teacher communicative practice in instruction and discourse stating, “Teachers who are responsive to their students, and engaged in joint meaning-making, are constantly stretching to reach the learner’s cognitive and linguistic ground” (p. 489).

The focus of the research done by Roberson, et al. (2004) is measuring the effectiveness of teachers of the deaf and hard of hearing using two broad categories: *teacher* quality, the characteristics and skills they bring to the classroom, and *teaching* quality, how they teach once they are in the classroom. Some of the characteristics and skills that encompass teacher quality are preparation, proper assessment-data collection, knowledge of content, ability to provide evidence of pedagogical knowledge, and demonstration that their instruction actually has an effect on student learning (Roberson, et al. 2004). According to Roberson, et al. (2004), the major indication of excellent teaching quality is the presence of academic responding which has been positively correlated with achievement on standardized tests. Academic responding is defined as “the active and appropriate student behaviors that are made in direct response to an academic task, teacher command, or teacher prompt” (Roberson, et al. 2004, p. 406).

Mayer, Akamatsu, and Stewart (2002) and Greenspan (2003) discuss in their research the effect of the environment and atmosphere that the teacher creates. Education is a “collaborative enterprise in which the teacher takes a leadership role” (Mayer, Akamatsu, & Stewart, 2002, p. 486) in creating and providing an atmosphere where students learn from each other and from the teacher while engaging in joint activity, and therefore; the atmosphere must be trusting, flexible, and controlled by the teacher. The results from the study done by Greenspan (2003) display that the teacher must create a nurturing, supportive environment where all children should benefit focusing on being patient and understanding each other.

Some researchers study the attitudes that the teachers bring with them into the classroom and instruction and found that they have a big role in the effectiveness of their teaching and student outcomes. Luckner and Muir (2001) found that excellent teachers have high expectations for their students and are not scared to challenge them in situations where they might fail. They stated that when this occurs the students will obtain more skills in dealing with the hearing world and have more ease in interacting with their hearing peers. After interviewing deaf and hard of hearing students who were considered successful, the same study by Luckner and Muir (2001) recorded that successful deaf and hard of hearing students are aware and appreciative of the help, support, and high expectations of their teachers.

Woolsey, Harrison, and Gardner (2004) state in their research that for deaf students to be at the same academic level as their hearing peers, teacher behaviors must accelerate learning. The following research will discuss the skills and behaviors that accomplish this task, starting with Luckner and Carter (2001). Luckner and Carter (2001) did a study to find out the competencies needed to teach deaf and hard of hearing students. The top ten competencies found with the highest mean scores ended up being general teaching techniques instead of focusing on any specific disability area. They are as follows: (1) Techniques for modifying instructional methods and materials for students with a variety of special needs; (2) Approaches to create positive learning environments for individuals with a variety of special needs; (3) Teach students to use thinking, problem solving, and other cognitive strategies to meet their individual needs; (4) Establish a consistent classroom routine for students; (5) Design learning environments that are multi-sensory and that encourage active participation by learners in a variety of group and individual learning activities; (6) Provide opportunities for the learner to develop basic concepts through participation in meaningful and motivating real-life experiences;

(7) Integrate academic instruction, affective education, and behavior management for individual students and groups of students; (8) Develop effective behavior support plans; (9) Provide opportunities for the learner to actively explore and experience common objects that learners with vision and hearing learn about incidentally; and (10) Help parents and other professionals to understand the impact of various disabilities on learning and experience (Luckner & Carter, 2001). Luckner composed another study with Howell in 2002 listing other necessary skills and knowledge. They say that the teachers of the deaf and hard of hearing students must be knowledgeable about and skilled with technologies such as hearing aids, cochlear implants, and FM systems, and be able to provide troubleshooting and auditory training if needed (Luckner & Howell, 2002). Collaboration skills are also discussed in regards to being able to work in a multidisciplinary team and underlay the design and implementation of the Individualized Education Plan (IEP) (Luckner & Howell, 2002).

Luckner and Howell (2002) also report that there is a growing increase in the number and need of itinerant teachers and a decrease in the number of self-contained classroom teachers, and therefore; discuss some specific skills that make an itinerant teacher effective. They must have excellent skills in consulting with parents and teachers and coordinating the IEP. They also need master knowledge of the general education curriculum, hearing aid and FM systems, and the use of direct instruction. As stated in the research, one of the most important characteristics that an itinerant teacher needs is flexibility (Luckner & Howell, 2002).

Briefly mentioned above, two major behaviors that are emphasized in the research is giving support and collaborating with families and professionals. In a study done by Luckner and Muir (2001), they included in their article several quotes they received from interviewing parents in regards to the success of their children. Many of the parents stated that they attribute

most of their child's success to his/her teacher collaborating with them and being their source of support and updated information on services, teaching, and technology (Luckner & Muir, 2001). Mentioned in the study done by Luckner and Howell (2002), the support from administration is also necessary. Master teachers should not have to do it alone. When they have the support, the teachers should be aware of it and know when and how to use it to fight for the child's needs (Luckner & Howell, 2002).

In 2003, Saur and Rasmussen did a study constructing the art of mentoring deaf and hard of hearing students. They state that "mentoring goes beyond what is the norm in the usual education roles" (Saur & Rasmussen, 2003, p. 200). According to the authors, there are two main aspects of mentoring in which the teacher fosters achievement and growth in the student. The two aspects are support and challenge. The success of the mentoring process depends on the mentor developing a personal trusting relationship with the mentee where there must be a fine balance between support and challenge so that change and independence can occur. Saur and Rasmussen (2003) write that critical events can have a positive or negative affect on a student. The teacher as mentor needs to be able to recognize, analyze, and take advantage of them by being informed of the potential power of the events. The roles that an excellent mentor teacher fills are being a listener of the students, a guide, an interpreter of experiences so that the effect is growth and understanding, and a person to pull in resources to help solve critical issues (Saur & Rasmussen, 2003). When a critical experience occurs and all of these roles and behaviors are done properly, the result should be that "the individual grows and maintains his/her integrity by incorporating both internal feedback and feedback from the environment creating a new, stable personal structure" (Saur & Rasmussen, 2003, p. 207).

Throughout the research on the best instructional practices used by master teachers of deaf and hard of hearing students, there are two main areas discussed: general strategies and character education with critical thinking and values clarification. According to Woolsey, Harrison, and Gardner (2004), teachers of the deaf and hard of hearing need to incorporate current research-based strategies. If not, the instructional demands placed on the student will not warrant the existence of sufficient academic progress because students learn better and behave better in the presence of effective instruction and engaging activities (Woolsey, Harrison, & Gardner, 2004). These same three authors found in their study that student levels of academic responding are directly related to the instructional practices used by teachers in the classroom. These are brought about by interaction and active student engagement (Woolsey, Harrison, & Gardner, 2004). Luckner and Muir (2001) say that one form of efficient instruction used by excellent teachers includes pre-teaching and post-teaching as a means to hold students accountable, but at the same time, making sure they have sufficient exposure to that which they are being held accountable. In their study, Smith and Ramsey (2004), list other instructional strategies master teachers use. They include sufficient wait time and persistent questioning leading to student understanding of the accuracy or inaccuracy of their response.

Luckner and Muir (2001) state that teachers must be aware they are preparing students for life after school as well as helping them get through school. Ways to prepare them for life after school include adding character education with values clarification into instruction and promoting critical thinking skills. In the study done by Easterbrooks and Scheetz (2004), they found that “the development of critical thinking skills must become central to the instruction of students with hearing loss if educators are to expect them to sort through the information avalanche presented both inside and outside the school walls” (p. 262). To teach character and

values, teachers must give the students the opportunity to evaluate decisions, be a model of the character values throughout the day and during instruction, and allow the students to process the information to get personal meaning out of it. Nelson (2005) and Luckner and Muir (2001) both discuss in their research study that master teachers are aware of the importance of students acquiring self-determination and self-advocacy skills. By acquiring these skills through character education, the teacher can help the students gradually become less dependent on the teacher. Nelson (2005) found that the belief of teachers that their students would not benefit from self-determination skills is the most frequently identified barrier to students acquiring those most needed skills.

There is a growing population of deaf and hard of hearing students that are educated in a general education classroom known as inclusion. Researchers have done studies to find the most effective teacher characteristics in addition to the characteristics already discussed that are needed to successfully teach this population of students.

Avramidis and Norwich (2002) reported on the effects of teacher attitudes on the success of deaf and hard of hearing students in an inclusive setting. They say that the teacher's acceptance of the policy of inclusion is likely to affect their commitment to implementing it, therefore; the success of inclusive practices is dependent in part upon the teacher's beliefs and attitudes. These attitudes toward inclusion are usually strongly influenced by the nature and severity of the disability. Administration and others who are more distant from the classroom have a more positive attitude toward inclusion than the teachers do (Avramidis & Norwich, 2002).

Keefe, Moore, and Duff (2004) discuss the four major characteristics that excellent teachers must have in order for collaborative or co-teaching to successfully occur in a general

education setting that includes a student with a hearing loss or other disabilities. The result of their study identifies the four “Knows of Collaborative Teaching.” First, know yourself which is recognizing your strengths and weaknesses and admitting any preconceived notions. Second, know your partner because before two teachers can plan an effective instructional plan for their students, they need to know each other’s preferences and styles. Third, know your students. By knowing your students, lines of communication between the teacher and the student can be opened. And, lastly, know your stuff. The teacher has to know the content thoroughly in order to teach it effectively (Keefe, Moore, & Duff, 2004).

Luckner and Muir (2002) state that 84% of deaf and hard of hearing students are in a general education classroom, therefore; through their research, they constructed a list of ten factors for promoting success in general education that teachers should be aware of, encouraging, and advancing. The ten factors are parental involvement, self-determination, extracurricular activities, friendships and social skills, self-advocacy skills, collaboration and communication with general education teachers, pre-teach/teach/post-teach content and vocabulary being learned in the general education classroom, collaboration with early identification and early intervention service providers, reading, and high expectations (Luckner & Muir, 2002).

Thus, by focusing on the student and how to best create an environment of learning and success, there are many dimensions identified that create the master teacher of the deaf. By reviewing the literature, it is evident that a master teacher of deaf and hard of hearing students must have all the skills, behaviors, and attitudes of an excellent general education teacher along with everything that encompasses an excellent teacher of the deaf.

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Parental Involvement in Deaf Children's Education Programs as a Predictor of Child's Language, Early Reading, and Social-Emotional Development

Rosemary Calderon

University of Washington

This study examined the impact of school-based, teacher-rated parental involvement on four child outcomes: language development, early reading skills, and positive and negative measures of social-emotional development. The 28 children were assessed for outcomes between 9 to 53 months post-graduation from a birth-to-3 early intervention (EI) program for children with hearing loss. Other factors included in the study were child's hearing loss, mother's education level, mother's current communication skills with her child, and maternal use of additional services beyond those offered by the early intervention program or the child's school program.

Parental involvement in children's school-based education program is a significant positive predictor to early reading skills but shares considerable variance with maternal communication skill for this outcome. In this study, maternal communication skills and the child's hearing loss were the strongest predictors for language development. Maternal use of additional services was the strongest predictor to poorer social-emotional adjustment. The study's findings indicate that although parental involvement in their deaf child's school-based education program can positively contribute to academic performance, parental communication skill is a more significant predictor for positive language and academic development. Factors associated with parental involvement, maternal communication, and use of additional services are explored and suggestions are offered to enhance parental involvement and communication skills.

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Parental involvement in deaf children's early intervention (EI) and school-based education programs is increasingly being encouraged and expected. Changes in the delivery and models used for birth-to-3 EI programs for deaf children have been more parent- and family-focused (Calderon & Greenberg, 1997; Roush & Matkin, 1994). The Individuals with Disabilities Education Act (IDEA), reauthorized in 1997, encourages parents to engage in the decision-making process of their child's education. One of the major themes running through the 1997 amendments to the act is increased parent participation in the special education process. The IDEA gives parents the right to participate not only in the development of the individual education plan but also in placement decisions for their children. Congress also mandated joint parent-professional training to enhance better understanding of everyone's roles and responsibilities in the process of educating the child (Margolis, 1998). Despite this phenomenon of encouraging and promoting parental involvement in deaf children's educational settings, the impact of parental involvement on deaf children's developmental outcomes has not been well investigated for either early intervention or school-based education programs.

Parental involvement with hearing children's educational programs has been more widely studied (Bloom, 1980; Christenson, Rounds, & Gorney, 1992; Comer & Haynes, 1991; Epstein, 1983; Griffith, 1996; Grolnick, Benjet, Kurowski, & Apostoleris, 1997; Haw-

ley, Rosenholtz, Goddstein, & Hasselbring, 1984; Reynolds, Mavrogenes, Bezruczko, & Hagemann, 1996; Stevenson & Baker, 1987). Early research sometimes resulted in equivocal findings, but these findings were attributed to methodological problems related to the definition, degree, site, and measurement of parental involvement and child outcomes (Reynolds, 1992). Results from more recent studies have shown very strong evidence of the importance of direct parental involvement on positive child outcomes above and beyond factors traditionally thought to dictate a child's academic success (e.g., socioeconomic status [SES], parent education) (Griffith, 1996; Reynolds et al., 1996).

For example, in a study of 42 elementary schools, Griffith (1996) found that parental involvement and empowerment accounted for substantial variance in students' standardized test performance. This positive relationship was largely unaffected by school characteristics or the socioeconomic, racial, and ethnic composition of the students. Reynolds et al. (1996) investigated a model of mediating variables on preschool intervention effects on children's later school achievement in sixth grade. The model incorporated cognitive readiness at kindergarten entry and parental involvement in school (rated by teachers and parents) as primary mediators of preschool effectiveness. Results indicated that cognitive readiness and parental involvement significantly mediated the effects of preschool participation on school achievement and grade retention 7 years after the program. The contribution of these factors was stable over time even after consideration of factors of age, parents' education, gender, and participation in primary-grade intervention. Parental involvement in school was significantly associated with preschool participation and independently predicted school achievement, lower incidence of grade retention, and less frequent school changes.

Findings like these are fueling a public consensus and a national movement to support and enhance the direct involvement of parents in their children's educational programs (Berger, 1995). Goals 2000: Educate America was originally developed by the governors and the president in 1989. In 1994, the U.S. Congress added two more goals, one of which addresses the importance of parental involvement: "Every school will

promote partnerships that will increase parental involvement and participation in promoting the social, emotional, and academic growth of children" (U.S. Department of Education, 1995, p. 43).

Research on parental involvement with high-risk and special needs children (e.g., children of poverty, handicapped children, immigrant children, children with emotional problems) has also shown that parents are instrumental in the teaching of academic, language, social, motor, and vocational skills and managing their child's behavior (D'Alonzo, 1982; Innocenti & Taylor, 1998; Kelly, 1973; Leyser 1985). Despite this understanding, several potentially troublesome issues may contribute to limited parental involvement in special education program planning. For example, conflicts may arise between home and school as a result of differences in philosophy, values, goals, and expectations. The parent-professional relationship is often marked with distrust and disillusionment. Parents and professionals may view each other as hostile, indifferent, and unable to help the child (Leyser, 1985).

Studies with hearing families and deaf and hard-of-hearing children (focusing on family values toward education, parents' attitudes/expectations toward the child's achievements, parental coping skills and child's academic and social-emotional outcomes, and direct parent instruction) have demonstrated mixed results on the link between family-based influences and the child's academic, language, and psychosocial adjustment (Bodner-Johnson, 1986; Calderon & Greenberg, 1993; Calderon, Greenberg, & Kusche, 1991; Musselman & Kircaali-Ittar, 1996; Musselman, Wilson, & Lindsay, 1988; Watson, Henggeler, & Whelan, 1990). However, parents influence all three domains of a child's academic, language, and social-emotional development, and each domain affects the others.

It is well established that deaf children with better language and communication skills perform better academically (Marschark, 1993), and there is strong evidence for a connection between children's social-emotional development or social competence and academic outcomes (Greenberg & Kusche, 1993). Increases in children's reading scores, more constructive use of classroom teaching time, and better social and academic problem solving resulted when deaf children

reached higher levels of social-emotional competence and language and communication skills.

Calderon and Greenberg (1993) and Calderon, Greenberg, and Kusche (1991) found that maternal functioning and coping factors have significant impact on a child's functioning. These results were supported by objective teacher ratings. Teachers rated children of parents with better problem-solving skills as better adjusted and more competent than children of poor problem solvers. Findings for the relationship between parental coping resources and child outcomes suggest that maternal problem-solving skill is positively related to the child's emotional understanding, reading achievement, and social problem-solving skills. In addition, utilitarian resources (i.e., SES and parental sophistication regarding their child's education and communication needs) were positively correlated with a child's reading achievement. Last, the children of mothers who indicated more positive adjustment to their deaf children showed lower impulsivity, greater cognitive flexibility, and higher social understanding.

Bodner-Johnson (1986) found that families who pressed for achievement had children with higher math and reading achievement and that families demonstrating higher adaptation to the child's hearing loss predicted higher reading achievement in the child. However, parental involvement with the child did not predict academic achievement, and parental involvement in the child's school-based program was not measured. Watson, Henggeler, and Whelan (1990) found that poor social competence of deaf youths in their study was associated with high family stress. Higher rates of children's behavior problems were associated with poorer parental emotional status, lower family functioning, and greater hearing loss.

Musselman, Wilson, and Lindsay (1988) investigated age of intervention, program intensity, and direct parental instruction on language and social development of children with severe and profound hearing loss. Children were between 3 and 5 years old at the first assessment and then were assessed again 3 to 4 years later. Early entry into intervention was associated with higher receptive language scores in the first but not the second follow-up assessment. Neither direct parent instruction nor program intensity demonstrated consistent effects associated with the child outcomes.

Musselman and Kircaali-Iftar (1996) more closely investigated a subsample of the population of the Musselman et al. (1988) study. They examined the spoken language development of 20 of the deaf children in that sample, 10 with unexpectedly high spoken language skills and 10 with unexpectedly low spoken language scores relative to the children's background and training. Within this sample, direct parental instruction was among several variables associated with higher spoken language skills. Based on family interviews and other collected data, the researchers hypothesized that families with children with high spoken skills took the view that deafness is a challenge to be overcome, whereas families with children with low spoken language skills may view it as a difference to be accommodated. Musselman and Kircaali-Iftar concluded that educational interventions interact with aspects of family functioning to influence the course of their child's development. Despite the promotion of parental involvement in children's education, researchers and educators need to focus more systematically on family process variables. One cannot assume that a high degree of involvement represents more effective child functioning. Their findings suggest that families adapt differently and need assistance in selecting educational interventions compatible with the families' goals and functional style.

A recent study by Powers and Saskiewicz (1998) demonstrated that parents of deaf children participate to the same degree as do parents of hearing children in their children's education. However, the type of involvement differed in that parents of deaf children observed their children in the classroom more often, whereas parents of hearing children more often volunteered in the classroom. Powers and Saskiewicz did not investigate the impact of parental involvement on any child outcomes but suggested that perhaps parents realize the importance of their involvement in their child's future success. They hypothesized that parents of deaf children perhaps did not feel skilled enough to communicate with the other deaf children and felt more comfortable as observers. Despite the limitations of this study, it is the first to investigate any aspect of direct parental involvement in deaf children's education programs.

Researchers must now establish empirical evidence that deaf children benefit from direct parental involve-

ment in their child's school-based program; this relationship is important due to the differences between hearing and deaf children. For example, studies of hearing children have emphasized the importance of parents teaching the "mother tongue" to the child to increase and reinforce language skills being taught in the school (Christenson et al., 1992). What does that mean for deaf children? Historically, parents have depended on professionals to assume the responsibility of educating deaf children; conflict between parents and professionals has often resulted. Parents of deaf children have often been made to feel inadequate or at odds with professionals (Calderon & Greenberg, 2000); parents then find it difficult to be directly and actively involved in their children's education programs. Further, enrollment in early intervention can be considered the starting point of deaf children's educational history. Is there a connection between parental participation in early intervention and later parental involvement in their child's school-based program, despite the varying nature of these two types of educational programs? Early intervention is usually home-based and one-on-one; school-based involvement requires more initiative and organization on the parent's part.

Objectives of Study

This exploratory study examines the relationship between hearing parents' involvement in their deaf child's school-based program and child outcomes of language development, early reading skills, and social-emotional adjustment. Two specific questions will be addressed. First, does parental involvement significantly and positively predict child outcomes or are other parental variables such as parental education level or communication skills better predictors? Second, if parental factors do significantly contribute to the child's outcomes, is there something unique about those parental characteristics or can they be addressed, supported, and enhanced in an effort to promote better outcomes for children?

Method

Design and Procedure

Children and families were invited to participate in this study if the child did not have significant develop-

mental delays at the time of exit from early intervention, possessed a hearing loss of greater than 50 db HL, came from an English-speaking home, and was between the ages of 42 and 90 months at time of follow-up. Families of children who met the study criteria were contacted by letter. Records from the early intervention program were reviewed and data were collected on each child's initial hearing loss, age at entry into intervention, length of program involvement, number of program contacts, and so on. Interventionists' narrative notes were rated for perceived parental involvement during the home-based visits. Families participated in a 60- to 90-minute, center-based visit to assess the child's language and prereading skills and complete a videotaped, parent-child interaction. Prior to this center-based appointment, parents were asked to complete a family information form, which included a self-report inventory surveying how many additional services related to addressing their child's hearing loss the family engaged in aside from services offered by the early intervention or school-based program. Two parent families were asked to have each parent complete the questionnaires independently. The child's teacher (with consent by the parent) rated parents' involvement in the child's school program and completed two questionnaires on the child's social-emotional adjustment. Parents were paid \$25 and reimbursed for mileage to the center. Children were given a "prize" (small toy) when they completed the testing procedures, and teachers were paid \$25 for completing their set of questionnaires. The center-based assessment followed a standard protocol, beginning with the videotaped, structured parent-child communication task followed by an examiner administering the language and early reading tests.

Participants

Participants were 28 children with prelingual, moderately severe to profound, sensorineural hearing loss (pure-tone average >55 dB HL) who graduated from the Early Childhood Home Instruction (ECHI) early intervention program (Thompson, 1994) and were 45 to 88 months old at the time of the follow-up assessment. Participants were recruited exclusively from a list of children and families who graduated from the

ECHI program, currently located at Children's Hospital and Regional Medical Center in Seattle, Washington. ECHI utilizes a Total Communication approach with Signing Exact English as the manual mode of communication. The intervention program also makes available a parent support group and a center-based playgroup to promote language development and social interaction in a play environment. At the time of graduation from ECHI, all the children were estimated to be of normal development as measured by the Rockford Infant Developmental Evaluation Scales (1979). All the children came from English-speaking homes (2 of the 28 were bilingual), had hearing parents, and had no older siblings with permanent hearing loss. Fifteen of the children and families lived in rural communities, 9 in suburban cities, and 4 lived in a major urban setting. Of the 28 children, 10 attended all deaf schools (1 attended as a day student at the Washington state school; 9 attended a private day school), 4 were in fully mainstreamed programs, and 14 were in self-contained programs for deaf and hard-of-hearing children within public hearing schools.

Preliminary screening of the eligible ECHI graduates indicated 44 children met criteria for entry into the study. Significant efforts were made to recruit all the children and families meeting the study criteria. Of the 44 families contacted, 30 consented to participate and 28 (64%) completed the study. Two consenting families later chose not to participate due to time conflicts and family responsibilities. No significant differences were found between the final 28 participating families and the 16 nonparticipating families on the variables available for comparison (estimated initial hearing loss, age at entry, duration of EI, residence, rating of maternal involvement in EI, language scores at exit from EI, or gender). Thus, the 28 participants appear to be representative of the original 44 eligible children and families.

Measures

Data were collected via interviewer-administered child assessment measures, parent and teacher questionnaires, videotaped parent-child interactions, and review of ECHI archival records. Because all 28 mothers participated in all aspects of the follow-up study, only

maternal data will be reported. (See Calderon and Low [1998] for results on the investigation of the paternal relationship to child outcomes.)

Child and family demographics and EI program information.

Child and family demographic and early intervention variables were collected either through the ECHI archival files, parent interviews, or the Family Information Form. The Family Information Form was constructed for this study and completed by the parents. Data were collected on gender of child, age of child at follow-up, place of family residence, current type of education program, maternal age, maternal education (on a scale of 1 to 7, 1 = less than eighth grade education, 7 = graduate school), age at entry into intervention, and intensity of intervention services (based on the total number of program contacts divided by the number of weeks in the intervention program). Hearing loss at time of follow-up was based on a parent-provided record of an audiogram completed within 12 months of the study. Hearing loss was defined as the average threshold at 500 Hz, 1000 Hz, and 2000 Hz in the better ear.

Parental involvement measures. The principle variable of interest, parental involvement in the child's school-based education program, was measured by asking teachers to complete a questionnaire (see the appendix) that rates parents on 14 indicators of involvement (e.g., participates in IEP meetings, requests additional services for child, volunteers in classroom, attends school related functions, etc.) using a 5-point scale (0 = not involved to 5 = highly involved). Indicators were tallied to provide a final score of teacher's ratings of each mother's involvement. The maximum score for this measure is 70. This parental involvement inventory was constructed for use in this study but is similar to other inventories measuring this construct (e.g., Powers & Saskiewicz, 1998).

Two other associated measures of parental involvement were also assessed. First, the additional services checklist asks parents to indicate whether they accessed for themselves or their child any services related to their child's hearing loss (e.g., speech therapy, sign language classes, counseling, other medical interventions, etc.) in addition to those provided by the early inter-

vention or school program. This measure was intended to capture parental involvement other than that available in the child's early intervention or school-based program. One point is given if the additional service was undertaken before or after the intervention and two points if it occurred during *and* after the intervention. The maximum score for this measure is 34.

Second, perceived parental involvement during early intervention was rated by two independent coders based on the interventionist's narrative notes completed after each of the home visits (e.g., is the parent noted to be passive or active, is the parent home for the appointments). Perceived parental involvement was rated on a 5-point scale with 1 typically absent, minimally involved or reluctant to participate; 2 present but only marginally involved; 3 present and moderately involved; 4 participates with enthusiasm but not independently or creatively; 5 participates, is highly involved, also shows creativity and independence. Interrater reliability was .81 for exact agreement and 1.00 for within 1 rating point difference for mothers ($\kappa = .70$, $SE = .17$).

Maternal communication. Because of the impact maternal communication skill can have on the parent-child relationship and the transmission of information about academic or social-emotional topics, a measure of maternal communication was conducted. Maternal communication skill was assessed with the Language Proficiency Profile-Parent Version (LPP-PV) (Calderon, Sidman, & Bargones, 1996). The LPP-PV was created based on the Language Proficiency Profile (LPP) (Bebko & McKinnon, 1993) to evaluate parental communication skills during a videotaped, structured parent-child interaction task. During the parent-child structured interaction task, each mother was instructed to encourage her child to tell a story about each of three pictures of varying familiarity. The pictures were presented to the child in an order progressing from most to least familiar (concrete to abstract). The first picture contained children in a preschool setting, working on arts and crafts projects. The second picture portrayed a diver in a wet suit and diving helmet standing on a dock; this less familiar scenario would allow for novel material to be introduced and discussed. The final picture was an abstract painting of a dancing Native

American. This drawing provided the opportunity to use abstract language and concepts.

Observers rated the videotapes of the parent-child interaction task. LPP-PV skill areas were credited if the information was provided in the child's demonstrated communication mode (e.g., if a child relied on sign language and the mother only used oral communication, then no skills were credited as the communication was inaccessible to the child). The original five LPP subscales (content, reference, use, cohesion, and form) were maintained in the LPP-PV, although individual skills not relevant to the designated task were deleted (22 skills were dropped from the LPP inventory, leaving 61% of the original LPP listed skills). Six additional skills were added (e.g., uses multiple word/sign messages, introduces new vocabulary, uses wh-questions to elicit language). Scores of 1 or 0 were assigned based on absence or presence of the skill. The maximum score on the LPP-PV is 40. Exact interrater agreement across the total measure was .88 and ranged between .81 to .89 for individual subscales. Kappas ranged from medians of .60 to 1.00, with an average median of .76 across all five subscales.

Child outcomes. All assessments were administered in the child's preferred communication mode, sign language and/or orally (i.e., ASL, simultaneous communication: oral and Signed Exact English, or oral only). The test administrators were experienced in communicating in the child's preferred sign language system. Additionally, the assessment measures were reviewed prior to the study and the assessment questions were modified as appropriate to reflect the underlying measurement issue while making the question accessible for those children who rely on sign language.

The child's language development was assessed with the Preschool Language Scale-3 (PLS-3) (Zimmerman, Steiner, & Pond, 1992). The PLS-3 is an examiner-administered language measure assessing both expressive and receptive English language skills. This test is standardized for hearing children age 0 to 84 months. The PLS-3 provides age-based standard scores, percentile ranks, and age equivalents for the receptive, expressive, and total language scores. Only the PLS-3 total language standard score is used in the analyses due to the high correlations between the two

subscales ($R = .78, p < .000$) and each subscale with the total language score ($R_s = .96$ and $.92$, respectively, $p < .000$) and the standard score controlled for the varying ages of the study participants. The PLS-3 was determined to be a reasonable language measure for this study population, despite its primary use with hearing children and assessment of English skills, because all the children in the study graduated from an EI program that taught Signing Exact English and the vast majority of families (96%) reported SEE or spoken English to be their primary mode of communication.

Early reading ability was assessed with the Test of Early Reading Ability-Deaf/Hard of Hearing (TERA-D/HH) (Reid, Hresko, Hammill, & Wiltshire, 1991). The TERA-D/HH measures the child's ability to attribute meaning to printed symbols, knowledge of the alphabet and its function, and understanding of the conventions of print. The TERA-D/HH has norms for deaf and hard-of-hearing children. This assessment tool was chosen because of its ability to assess age-appropriate early reading skills in normally developing deaf children over a range of ages. It provides scores in their raw form, as percentiles, quotients, and standard scores. The quotient score was used in the analyses as a measure of controlling for the various ages of the children in the study.

Teachers rated social-emotional adjustment with use of two measures. Teacher ratings were used because of the interest in determining whether parental involvement influences the child's school-based behavior. One measure reflects positive social-emotional adjustment and the second measures externalizing behavior problems. The focus on externalizing rather than internalizing behavior problems is due to the higher than normal incidence of externalizing behavior problems in young deaf children (see Greenberg & Kusche, 1993). To assess for positive sociable, communicative behaviors, Scale 1 from the Social Emotional Assessment Inventory-Preschool Version (SEAI; Meadow, 1983) was used. The SEAI is a 49-item, teacher-completed behavior rating scale developed specifically to assess deaf and hard-of-hearing children. The SEAI yields normative information on four subscales (sociable, communicative behaviors; impulsive, dominating behaviors; developmental lags; and anxious,

compulsive behaviors) plus three special items related to deafness. Norms are provided for girls and boys with hearing loss ages 36 to 83 months. Scores range between 1 and 4 with higher scores indicating better sociable, communicative skills.

Externalizing child behavior problems were assessed with the Teacher Rating Form of the Child Behavior Checklist (CBCL; Achenbach, 1991, 1992). The CBCL contains 100 or 113 (dependent on the age of the child) behavior-problem descriptions rated by teachers for degree of frequency of the problem (none, sometimes, a lot) shown by the child. It provides standardized scores (controlling for gender/age differences) and percentile scores for internalizing, externalizing, and total problems scores. Only the externalizing standard score was used from this measure. Higher scores indicate more severe externalizing behavior problems.

Results

Final variables included in the regression analyses are the four child outcomes (PLS-3 language score, TERA-D/HH early reading score, SEAI Scale 1, and the CBCL externalizing subscale score) as dependent variables, child's hearing loss as a covariate, and maternal communication score, maternal education, teacher-rated parent involvement in the child's school-based program, and the use of additional services as independent variables. Table 1 shows the means, standard deviations, and ranges for the variables in these regressions.

The relations among the study variables were first investigated by use of Pearson correlations, histograms, and scatter plots. All variable pairings were examined to ensure that correlations were not influenced by outlying or extreme values. Review of the correlations and plots revealed no significant outliers, extreme values, or skewed relationships among the variables. Table 2 presents the correlation matrix for the regression variables.

Among the variables in the correlation matrix, maternal communication skill was significantly and positively correlated with teacher-rated parental involvement. The PLS-3 language score was significantly and positively correlated with the child's hearing loss and maternal communication skill. The TERA-D/HH early reading score was significantly and positively cor-

Table 1 Means, standard deviations, and ranges for the regression variables

	<i>M</i>	<i>SD</i>	Range
Parent involvement variables			
Teacher-rated maternal involvement in child's school-based education program	31.43	16.21	6.00–56.00
Maternal use of additional services	10.57	4.96	4.00–21.00
Child and family factors			
Child's hearing loss	91.21	17.52	55.00–115.00
Maternal education ^a	5.00	1.25	2.00–7.00
Observer-rated maternal language skill (LPP-PV)	27.89	8.49	13.00–38.00
Child outcome variables			
PLS total standard score	67.93	19.95	50.00–124.00
TERA/DHH quotient	97.82	15.78	70.00–127.00
SEAI-1 (sociable and communicative) ^b	3.45	.32	2.78–3.89
Teacher CBCL (externalizing subscale standard score) ^c	51.61	7.63	39.00–64.00

^aMaternal education scale = 1—up to 9th grade, 2—partial high school, 3—completion of GED or high school, 4—one year of college, 5—two years of college or technical school, 6—four years of college, 7—graduate school.

^bSEAI-1 is scored between 1 and 4 with higher scores reflecting higher social, communicative behavior.

^cCBCL externalizing subscale scores reflect more behavior problems as scores increase.

Table 2 Correlation matrix of dependent and independent variables entered in regression models

	Teacher-rated maternal involvement	Maternal use of additional services	Child's hearing loss	Maternal education	Maternal communication skills	PLS-3 total language score	TERA D/HH quotient	SEAI Scale 1	CBCL externalizing score
Teacher-rated maternal involvement	—	.047	.000	.441*	.587***	.266	.519***	.143	-.281
Maternal use of additional services	—	—	-.171	.006	.032	.146	-.186	-.462*	.578***
Child's hearing loss	—	—	—	-.239	-.335	-.616***	-.210	-.090	.112
Maternal education	—	—	—	—	.357	.412*	.427*	-.165	-.156
Maternal communication skills	—	—	—	—	—	.579***	.610***	.210	-.445*
PLS-3 total language score	—	—	—	—	—	—	.675***	.312	-.207
TERA D/HH quotient	—	—	—	—	—	—	—	.485**	-.483**
SEAI Scale 1	—	—	—	—	—	—	—	—	-.540**

n = 28.

**p* < .05.

***p* < .01.

****p* ≤ .001.

related with maternal communication skill, the PLS-3 language score, the SEAI sociable, communicative subscale, and negatively correlated with the CBCL externalizing behavior problem subscale. The SEAI and CBCL scores were significantly but negatively correlated with one another, as might be expected since one (SEAI) indicates positive social behaviors and the other (CBCL) represents externalizing behavior problems. Maternal use of additional services was also strongly correlated with the CBCL externalizing score for child behavior problems and less strongly and in a negative direction with the SEAI sociable, communicative scale. To a lesser but still significant degree, maternal education was correlated with teacher-rated parent involvement, child's PLS-3 language score, and TERA-D/HH early reading score.

Multiple regression analyses were conducted to determine whether the primary variable of interest, parental involvement in the child's school-based program, is a significant predictor of the child outcome measures or if other parental factors may be more predictive. Because of the exploratory nature of this study, variables were initially entered in the following uniform order for each of the dependent variables: hearing loss was entered first as a covariate; then parental involvement, maternal communication, additional services, and maternal education were entered second in a step-wise fashion. Table 3 presents results of the multiple regression analyses for the four child outcomes.

With the PLS-3 language score as the dependent variable, regression results indicate that child's hearing loss accounted for a significant 38% of the variance, followed by maternal communication skill accounting for an additional 15.7%, which was also at a significant level. Together they explained 53.7% of the variance. No other variable made a significant contribution in explaining child's language development. Regression results for the TERA-D/HH early reading score indicate that child's hearing loss accounted for only 4% of the variance (a nonsignificant contribution) followed by maternal communication skill, which explained a significant 33% of the variance. None of other variables was a significant predictor. Results for the sociable, communicative scale from the SEAI indicate that child's hearing loss was noncontributory at less than 1%, while maternal use of additional services accounted for a significant 23.5% of the variance. This was a negative relationship in that higher scores for use of additional services predicted poorer ratings on sociable, communicative skills for the child. No other variable added further in explaining the variance for this outcome. Last, when teacher ratings on the CBCL for externalizing behavior problems was the dependent variable, child's hearing loss accounted for only 1% of the variance, followed by maternal use of additional services accounting for a highly significant 37% of the variance, and maternal communication skill explaining, at a significant level, an additional 17% of the overall

Table 3 Results of regression models for child outcomes of language development, early reading, and social-emotional adjustment

Variable	β	<i>df</i>	R^2	<i>df</i>	F_{eqn}	R^2_{change}	F_{change}
PLS-3 total language standard score							
Child's hearing loss	-.476*	1, 26	.380	1, 26	-3.291	.380	15.918*
Maternal communication skills	.420*	1, 25	.537	2, 25	2.908	.157	8.457*
TERA-D/HH early reading skills							
Child's hearing loss	.006	1, 26	.044	1, 26	.037	.044	1.196
Maternal communication scores	.607**	1, 25	.372	2, 25	3.610	.328	13.036**
SEAI scale 1: sociable, communicative							
Child's hearing loss	-.174	1, 26	.008	1, 26	-.985	.008	.213
Additional services	-.492*	1, 25	.243	2, 25	-2.784	.235	7.752*
Teacher-rated CBCL externalizing behavior standard score							
Child's hearing loss	.067	1, 26	.013	1, 26	.456	.013	.330
Additional services	.604**	1, 25	.380	2, 25	4.360	.368	14.820**
Maternal communication skill	-.442*	1, 24	.553	3, 24	-3.050	.173	9.302*

* $p < .01$.

** $p \leq .001$.

variance, for a total of 55%. Maternal communication skill was negatively related to this outcome; that is, mothers with lower-rated communication skills had children with higher teacher-rated externalizing behavior problems. Neither teacher-rated maternal involvement nor maternal education was significant.

Because of the significant correlation between maternal communication skill and teacher-rated maternal involvement, another set of regressions was computed in which maternal communication was removed from the second entry step of the independent variables and entered as a third step. This was done to determine whether this order would reveal any information about parental involvement as a predictor variable prior to entering maternal communication and whether maternal communication remained a significant predictor beyond that variance potentially explained by parental involvement. Results for these second regressions indicate that when maternal communication is entered last, parental involvement does explain a significant amount of the outcome variance for early reading scores at 27% and maternal communication skills drop to a more modest but still significant contribution of an additional 10%. This order of entry increased the explanation of the total variance to 41.5% from the original 37%. There was no change in the results for the PLS-3 language scores with this alternate entry of variables. Maternal communication remained the only predictor after hearing loss to contribute additional significant understanding of the outcome variance for the PLS-3 language development score.

Similar alternate regressions were computed for the two measures of social-emotional adjustment. For these regressions, use of additional services was taken out of the second stepwise entry and entered in a third step to determine whether teacher-rated parental involvement would emerge as a predictor variable prior to entering use of additional services and whether use

of additional services would remain a significant predictor beyond that variance explained by parental involvement. Regression outcomes remained unchanged for the SEAI measure of positive sociable and communicative behaviors regardless of entering use of additional services last. Additional services remained the only significant predictor variable. When use of additional services and maternal communication were entered last in a third step for the dependent variable of CBCL externalizing behavior, the results remained unchanged, hearing loss remained nonsignificant and maternal communication skill and use of additional services remained significant predictors. Table 4 presents the one different significant finding of this second set of regression models.

After deriving the results from the regression analyses, further analyses were computed to determine whether any child, maternal, or early intervention variables are associated with teacher-rated parental involvement, maternal communication, and maternal use of additional services. Variables hypothesized to be associated with these three predictor variables included child's hearing loss, maternal involvement in early intervention, child's age of entry into early intervention, intensity of EI, maternal education, and SES. Table 5 presents the mean, standard deviation, and range for these variables and Table 6 the correlation matrix between teacher-rated parental involvement, maternal communication, additional use of services, and the various child, maternal, and early intervention variables.

Teacher-rated maternal involvement was most highly correlated with ratings for maternal involvement in early intervention, the intensity of the early intervention program, and SES. Maternal education was marginally correlated with teacher-rated maternal involvement. Maternal communication skill was significantly correlated only with SES. Use of additional services was marginally correlated with child's age of

Table 4 Significant results of alternate regression model for child outcome of TERA-D/HH early reading skills

Variable	β	<i>df</i>	R^2	<i>df</i>	F_{eqn}	R^2 change	F_{change}
Child's hearing loss	-.065	1, 26	.044	1, 26	-.381	.044	1.196
Teacher-rated parent involvement	.266	1, 25	.314	2, 25	1.332	.270	9.835**
Maternal communication skills	.431*	1, 24	.415	3, 24	2.035	.101	4.143*

* $p \leq .05$.

** $p = .002$.

entry into early intervention and intensity of the early intervention services.

Regression analyses were then computed to determine which of these variables might explain a significant amount of the variance in teacher-rated parental involvement, maternal communication skill, and maternal use of additional services. Regressions were computed by entering all independent variables in one stepwise entry for each of the three variables of interest. Regression results for teacher-rated parental involvement indicated that maternal involvement in early intervention and the intensity of the early intervention explained 49% of the total variance. Maternal involvement in early intervention explained 35% and intensity of the intervention accounted for an additional 13.5%. For maternal communication skill, only SES was a significant explanatory variable, accounting

for 15% of the variance. Variables that were significant in explaining use of additional services were age of entry into early intervention and the intensity of the intervention. Age of entry and intensity of early intervention services explained approximately 34% of the total variance, with age of entry explaining a significant 16% and intensity of intervention services accounting for an additional significant 18%. More additional services were used by mothers of children who entered later into early intervention or were provided more intense early intervention services. Table 7 presents the results of these regression analyses.

Last, it is not unusual for deaf children to travel relatively long distances to attend centralized special education programs. This may affect how easily a parent can directly be involved with his or her child's school program. An ANOVA was computed to determine whether place of residence (urban, suburban, or rural) might affect parental involvement in the child's current school program. Results were not significant, indicating that place of residence was not related to level of parental involvement.

Discussion

This exploratory study is an examination of the relation between school-based parental involvement and later child outcomes specific to hearing mothers with deaf and hard-of-hearing children. Two questions were asked. First, does parental involvement significantly and positively predict child outcomes or are other parental variables such as parental education level or

Table 5 Means, standard deviations, and ranges for child, early intervention, and maternal variables

	<i>M</i>	<i>SD</i>	Range
Child's hearing loss	91.21	17.52	55.00–115.00
Child's age at entry to EI	21.00	7.36	4.20–31.57
Maternal involvement in early intervention	3.52	.94	2.00–5.00
EI program intensity (home visits per month)	2.87	.99	.44–5.3
Maternal education ^a	5.00	1.25	2.00–7.00
SES	3.3	.09	1.00–5.00

^aMaternal education scale = 1—up to 9th grade, 2—partial high school, 3—completion of GED or high school, 4—one year of college, 5—two years of college or technical school, 6—four years of college, 7—graduate school.

Table 6 Correlation matrix of teacher-rated maternal involvement, maternal communication skills, and use of additional services with child, maternal, and early intervention program variables

	Teacher-rated maternal involvement	Maternal communication skill	Use of additional services
Child's hearing loss	.000	-.335	-.171
Child's age of entry into early intervention	-.239	-.013	.380*
Maternal involvement in early intervention ^a	.593***	.353	-.295
Intensity of early intervention program	.476**	.276	.373*
Maternal education	.441*	.357	.006
SES	.467**	.390*	-.013

^a*n* = 27.

**p* < .05.

***p* < .005.

Table 7 Results of regression models for teacher-rated maternal involvement, maternal communication skills, and use of additional services

Variable	β	df	R^2	df	F_{eqn}	R^2 change	F_{change}
Teacher-rated maternal involvement							
Maternal involvement in early intervention	.577	1, 26	.352	1, 26	3.939	.352	13.588**
Intensity of early intervention	.367	1, 25	.487	2, 25	2.510	.135	6.299*
Maternal communication skills							
SES	.391	1, 25	.153	1, 25	2.123	.153	4.509*
Use of additional services							
Age of entry into early intervention	.467	1, 26	.159	1, 26	2.771	.159	4.712*
Intensity of early intervention services	.426	1, 25	.336	2, 25	2.530	.177	6.400*

* $p \leq .05$.** $p \leq .001$.

communication skill better predictors of deaf children's outcomes? Second, if parental factors do significantly contribute to the child's outcomes, is there something unique about those parental characteristics or can they be addressed, supported, and enhanced in an indirect effort to promote better outcomes for children? Results from this study suggest that school-based parental involvement does predict early reading skills but shares considerable predictive power with maternal communication skill. In other studies, there is no clear-cut relationship between parental school-based involvement and child outcomes.

Maternal communication skill proved to be a more significant indicator for both language development, early reading skills, and social-emotional development. Mothers who demonstrated better communication skill with their children had children with higher language and reading scores and less behavior problems, after controlling for hearing loss. Although maternal communication skill was not conceptualized as an indicator of direct, school-based parental involvement, it does suggest a strong aspect of parental involvement. A parent would have to be quite involved with his or her deaf or hard-of-hearing child to develop good mutual communication. For the young children in this study, developing a common language base requires a fair amount of work on the parents' part, especially if that common language is a new language to the parent, such as sign language. Even sharing spoken English with deaf or hard-of-hearing children requires a significant amount of practice and sensitivity to make the spoken message meaningful and accessible.

Of the various parent, child or early intervention

factors thought to possibly predict maternal communication skill, only SES was significant though marginal. SES has not been shown in past studies to be directly related to outcomes associated with deaf children, but the relationship between SES and maternal communication in this study may demonstrate an indirect link to child outcomes. Mothers with higher SES may have the resources to access those tools that can enhance mutual communication with her child, such as private or public sign language classes, books, videotapes, auditory-verbal training for the child, or the most advanced listening devices. Interestingly, maternal education alone was not predictive for maternal communication skill, parental involvement, or any of the child outcomes. This is contrary to findings in studies of hearing children, which indicate maternal education to be a strong predictor to child outcomes (Stevenson & Baker, 1987). This may indicate that even mothers with higher levels of education may not be able to influence their child if they do not share a communication mode.

With regard to the relationship between maternal use of additional services and the two child social-emotional outcomes, it is interesting that use of additional services predicts poorer outcome on both these measures. Mothers who used more outside additional services (and might be thought of as a more involved parent) had children with more behavioral problems and poorer sociable, communicative skills. Normally, one might think that the more services and the more involved the parent, the better off the child. This counterintuitive result may be better understood when one examines the factors associated with use of additional services: age at entry into early intervention and inten-

sity of intervention services. Those children who used the highest number of additional services entered the birth-to-3 early intervention program after 24 months of age, some as late as 30 months old. Children who enter intervention later tend to have poorer outcomes for language development at exit from intervention, and these delays continue well after intervention (Calderon & Naidu, in press). Thus, it is not surprising that parents whose children entered late into intervention may feel more compelled to seek out other resources to compensate for missed EI services. Additionally, those families who received higher intensity of services may have had children with higher needs either due to late entry or slower progress with the standard intervention services provided. Given the relationship between poor language skills and behavior problems in both hearing and deaf children, it is not surprising that use of additional skills predicts poorer social-emotional adjustment.

A similar dynamic is also illustrated with the relationship between poorer maternal language skill and higher externalizing behavior problems. Without good models for verbal mediation of behavioral difficulties and facilitative instruction for alternative good behaviors or reasons why the behavior is inappropriate, children tend to exhibit acting-out behaviors. This is true for hearing as well as deaf children (Greenberg & Kusche, 1993). Unfortunately, results from this study did not give clear indicators as to what parental factors predict positive sociable, communicative skills or prevent externalizing behavior problems.

Direct, school-based parental involvement may not be a more significant predictor for deaf children's outcomes for a number of reasons. First of all, perhaps for deaf children, unlike hearing children, direct parental involvement in the child's school program is not as primary, or parental involvement as measured in this study is not sensitive enough, or hearing parents of deaf children do not participate to a high enough degree to make an impact. In this study, the mean average teacher rating for parental involvement did not reach the midpoint of the highest score possible. This dynamic of less parental involvement by hearing parents of deaf children was suggested by Powers and Saskiewicz (1998) when they observed that the type of involvement differed for the parents of hearing versus

deaf children. Parents of deaf children observed their children in the classroom more often, whereas parents of hearing children more often actively volunteered in the classroom. Perhaps parents of deaf children do not feel skilled enough in communicating with the other deaf children to be a classroom volunteer.

Another hypothesis for the lack of direct, school-based parental involvement involves the nature of the difference between parental involvement in early intervention and later in the child's school. In early intervention, the teacher comes to the home at a convenient time for the family, works one-on-one with the parent and child, and often functions as a primary support person during the early diagnosis phase, which can be a very emotional time for parents. In contrast, for the parent to be involved in the child's classroom, a number of obstacles may arise, including transportation, time, distance from the school, as well as parents' own feelings about being in a school building. Also, the teacher's role may be very different from that of the early interventionist and the goals of the school-based education program may be quite different from those of the EI program. The bureaucracy of special education may intimidate parents and discourage them from participating. Parents also report varying degrees of interest from teachers when seeking to become involved in their child's school program. Further investigation of direct parental involvement including in-depth interviews with the parents will provide resolutions for these hypotheses.

Future investigations can further the results of this study by addressing the several limitations concerning the population and measures for child outcome and parental involvement. Studies that include older children of a more uniform age; measure school-based parental involvement with more breadth, depth, and objectivity; and utilize stronger measures of academic child outcomes, such as the standardized test scores in several different academic subjects, will provide a more definitive investigation of the questions posed in this study.

In summary, deaf children are considered a high-risk population because of their well-documented delays in language and communication skills, academic achievement, and social-emotional adjustment (Greenberg & Kusche, 1989; Marschark, 1997). Direct parental involvement in their *hearing* children's school pro-

gram can have a positive influence on the child's academic and social-emotional development. Results from this study provide initial evidence that direct parental involvement in *deaf* children's education programs may not play as significant a role as other indicators of parental involvement (e.g., maternal communication skill). Parental involvement may depend on the development of other parent skills first, as demonstrated by the moderate correlation and shared variance between direct parental involvement and maternal communication skill in explaining early reading skills. This study suggests that mothers who can communicate better with their deaf child may also feel more at ease to interact with their child in settings other than the home, feeling more comfortable participating in their child's school environment.

Given the preliminary results of this study, educators, counselors, school administrators, and other related professionals should more systematically and actively invite parental involvement with the goal to

enhance parental communication skills with their child. The following recommendations are offered in an effort to create and support improved parent-professional teamwork for deaf children's educational and life success. First, designate the role of a parent educator in school programs to facilitate parent-school involvement and parent-child communication. Second, systematically incorporate parent volunteer opportunities in the child's educational setting. Parents can then readily observe teachers model communication strategies with their child. And, last, do not undervalue the importance of school-sponsored sign classes, family retreats, open door policies, or other efforts that can help families increase their communication skills with their child. These activities indicate to families that they are vitally important to the education of their child and that schools value the home-school connection.

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Appendix

Teacher Questionnaire

Please rate how involved you think _____'s parent(s) is in the following activities that are oftentimes associated with a child's education program.

0 = not involved 2 = a little involved 3 = average 4 = a lot involved 5 = highly involved
 NA = Not Applicable DK = Don't Know

Provides input into the child's Individualized Education Plan	Mother	NA/DK	0	2	3	4	5
	Father	NA/DK	0	2	3	4	5
Requests additional educational services	Mother	NA/DK	0	2	3	4	5
	Father	NA/DK	0	2	3	4	5
Attends classroom functions, (e.g., open house, plays, etc.)	Mother	NA/DK	0	2	3	4	5
	Father	NA/DK	0	2	3	4	5
Volunteers in classroom	Mother	NA/DK	0	2	3	4	5
	Father	NA/DK	0	2	3	4	5
Engages in spontaneous contact with the teacher	Mother	NA/DK	0	2	3	4	5
	Father	NA/DK	0	2	3	4	5
Observes in child's classroom	Mother	NA/DK	0	2	3	4	5
	Father	NA/DK	0	2	3	4	5

Asks questions about the curriculum	Mother	NA/DK	0	2	3	4	5
	Father	NA/DK	0	2	3	4	5
Knows child's classmates	Mother	NA/DK	0	2	3	4	5
	Father	NA/DK	0	2	3	4	5
Uses teacher established system for keeping in contact with parent (e.g., writes in daily notebook, keeps phone appointments)	Mother	NA/DK	0	2	3	4	5
	Father	NA/DK	0	2	3	4	5
Facilitates or enhances child's learning opportunities	Mother	NA/DK	0	2	3	4	5
	Father	NA/DK	0	2	3	4	5
Reinforces or expands on topics/lessons presented in school	Mother	NA/DK	0	2	3	4	5
	Father	NA/DK	0	2	3	4	5
Helps out with school fundraisers	Mother	NA/DK	0	2	3	4	5
	Father	NA/DK	0	2	3	4	5
Reviews child's classroom work	Mother	NA/DK	0	2	3	4	5
	Father	NA/DK	0	2	3	4	5
Other, please describe _____	Mother	NA/DK	0	2	3	4	5
	Father	NA/DK	0	2	3	4	5

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Teaching Sign Language to Hearing Children as a Possible Factor in Cognitive Enhancement

O. Capirci

A. Cattani

Institute of Psychology, Italian National Research Council

P. Rossini

Gruppo SILIS

V. Volterra

Institute of Psychology, Italian National Research Council

We describe an educational experience designed to teach Italian Sign Language (LIS) to a group of hearing children. The hypothesis underlying this experience was that learning a visual-gestural language such as LIS may improve children's attentional abilities, visual discrimination, and spatial memory. To examine this hypothesis, we conducted two studies. The first involved an educational experience lasting two years with a group of hearing children attending a Sign Language class from first to second grade. The Raven PM 47 TEST was administered at the beginning and at the end of each school year to children attending the LIS classes and to a control group of children enrolled in the same school but not exposed to LIS. The second study involved an educational experience in first grade. The Raven PM 47 and Corsi's block-tapping tests were administered at the beginning and at the end of the school year to the children attending the LIS classes, to children enrolled in the same school but attending an English class, and to children not exposed to a second language. We found that in both studies the LIS group performed better than the other groups. These results suggest that learning a sign language may lead to a cognitive advancement in hearing children.

Sign languages used by deaf people employ sophisticated ways of representing space. Do signers develop other, nonlinguistic, visual-spatial abilities as a result of

this linguistic feature? Bellugi and her colleagues studied visual-spatial cognition in deaf signers, comparing their performance to that of hearing, nonsigning children on a battery of visual-spatial tests (Bellugi, O'Grady, Lillo-Martin, O'Grady, van Hoek, & Corina, 1990). In tests of spatial construction, spatial organization, and facial recognition, deaf signing children were markedly ahead of the hearing nonsigning children and far in advance of their chronological norms. Similar results were reported by Chovan, Waldron, and Rose (1988), indicating that deaf middle school and high school students had faster responses in visual cognition tasks than their hearing peers.

To clarify the relation between familial deafness and intelligence, Zweibel (1987) examined the intellectual abilities of 243 children, each with familial deafness. The Snijders-Oomen Nonverbal Intelligence Test (SON) and the Goodenough-Harris Human Figure Drawing Test were administered both to deaf children with deaf parents or deaf siblings (suggesting genetic deafness) and to deaf children with hearing parents and hearing siblings. Zweibel found that, in both tests, deaf children with deaf parents scored significantly higher than deaf children with hearing parents but deaf siblings, according to scores on the SON and Figure Drawing tests. Furthermore, the latter group did not differ from deaf children with all-hearing families (nongenetic deafness). The main conclusion of the study was that genetic background makes no difference in intelligence. Zweibel suggested that these results were best interpreted in terms of manual communica-

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tion use in the home, which increased the ability of deaf children to absorb messages and stimuli, thus leading to subsequent enhancement in cognitive development.

Finally, a recent study by Parasnis, Samar, Bettger, and Sathe (1996) compared deaf nonsigning children with hearing controls on five tests that measured visual spatial skills. Deaf and hearing children did not differ in their performance, suggesting that exposure to sign language and not to deafness itself determines differences in visual spatial skills.

Few studies have focused on the use of sign language by normally developing hearing children. In most cases sign language has been used with hearing children exhibiting particular pathologies such as Down syndrome, (Acosta, 1981) or autism (Konstantareas, 1984; see Bonvillian & Miller, 1995, for a recent review of Sign Communication Training with mentally retarded children). Research in this area has shown that the use of signs improves the communicative skills of these children.

A limited number of studies have been carried out in situations where bilingualism comes naturally in a family context: hearing children of deaf parents who acquire sign language together with spoken language. Often bilingual children show very rapid language development in both languages (Capirci, Montanari, & Volterra, in press; Griffith, 1985; Orlansky & Bonvillian, 1985; Prinz & Prinz, 1981).

In particular, a study by Daniels (1993) shows that bilingual-bimodal children achieve higher scores on the Peabody Picture Vocabulary Test (PPVT), suggesting that knowledge of American Sign Language (ASL) has a positive effect on the acquisition of English by hearing children.

Only one study (Daniels, 1994) reports a pilot project of teaching sign language to hearing children of hearing parents in a school context. Daniels demonstrated that preschoolers who learned sign language showed a greater understanding of English vocabulary. At the end of the year, the children attending ASL lessons achieved significantly higher scores in the PPVT vocabulary comprehension test than their peers who did not take part in the project. The teaching method employed was basically bimodal, supplying the corresponding sign for each word. Additional brief phrases

in which the two modes were separated and presented as two different languages were introduced only when the children had acquired a basic ASL vocabulary.

The aim of this article is to evaluate the effects of sign language instruction in hearing children. Specifically, we hypothesize that hearing children's experience with sign language in the early school years may enhance performance in the domain of nonverbal cognitive skills such as visual perception, visual discrimination, and spatial memory. Two studies are reported here. The first study describes an educational experience lasting two years with a group of hearing children attending a sign language class in first and second grade matched to a group of hearing children not exposed to sign language. All of the children were given the Raven PM 47 test that measured visual-spatial skills at four time points. This study investigated whether the performance of children who were exposed to sign language was different from the performance of hearing children not exposed to sign language on this test of visual-spatial cognition.

The second study describes a similar educational experience of teaching sign language to hearing children attending the first grade. The children attending the sign language class were matched to two control groups: (1) hearing children enrolled in the same school but exposed to an English course; and (2) hearing children not exposed to any foreign language. All children were given the same test as in the first study and a Corsi's block-tapping test that measured spatial memory at two time points. The second study investigated whether the performance of children exposed to sign language was different from the performance of children exposed to English and to children not exposed to any foreign language on tests of visual-spatial cognition and spatial memory.

Study 1: Method

Subjects. Twenty-eight children from two first-year elementary school classes participated in a longitudinal two-year study. Half of the children attended a course in Italian Sign Language (LIS group), while the other half had no such experience (control group). The afternoon program in sign language was voluntary. All children in the class were given a choice of activities: music,

gymnastics, or sign language. Half the children (14) chose to participate in the sign language program. The remaining 14 participated in music or gymnastics programs. The two groups came from families living in the same neighborhood and of the same low-middle-class background, and with the exception of Sign Language class, they were enrolled in the same school program. All children (28) are from monolingual Italian-speaking families and they had no experience with deaf culture or sign language. At the beginning of the course, the mean age of the children in the LIS group was 6.6 years, and the mean age of the children in the control group was 6.5 years.

Procedure. The LIS course was held in the afternoon, one hour a week (for seven months in the first year and for eight months in the second year) on the school premises by a deaf teacher whose first language was sign language. All of the lessons were video-recorded and transcribed by an experimenter. Children in the LIS group also worked for an hour each week with a hearing teacher who had knowledge of LIS.

The educational experience is based on the following methodological principles: (1) presenting LIS through a native signer interacting with the children exclusively in this language; (2) offering children the opportunity to experiment with LIS in familiar contexts; (3) never translating from one language to another, only stimulating children to capture analogies; (4) improving the development of comprehension skills, especially in the first stage; and (5) letting children spontaneously develop their production skills.

The LIS program lessons developed in the two years of the course are outlined in Table 1.

At the beginning and end of each of these two academic years, all of the children in our sample were given the Raven PM 47 Test (Raven, 1949). This test measures visual perception and level of mental development. It consists of a series (36 color pictures) of increasingly difficult matrixes, each with one piece missing. The subject must select the correct piece to complete the matrix from six alternatives. For each trial, a single stimulus picture is presented above the six response-choice pictures. The subject's task is to point to the one picture that fits in the stimulus picture. There is no time limit for responding. The correct so-

Table 1 Course outlines

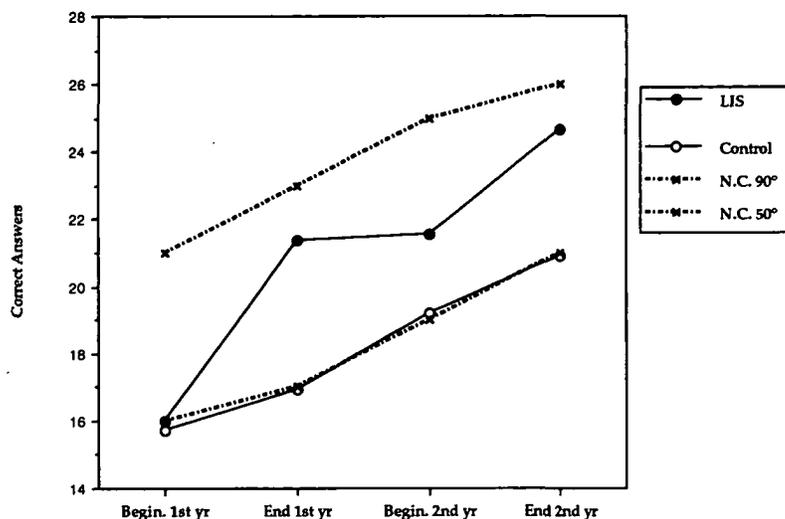
Outlines	Description
1-year course	
Name signs	
Fingerspelling	letters and syllables
Geometric blocks	triangles, squares, circles, rectangles
Number	from 1 to 10
Geometrical figure	
Colors	primary
Animals	
Family members	father, mother, brother, and sister
Meals	objects and dishes
Narration	comprehension of short fairy tales and real life events
Pretended play	individually and as a group
2-year course	
Fingerspelling	first and last name
Number	to 30
Colors	complementary, light, and dark
Family	all members, e.g., grandmother, uncle, cousin
Geometrical drawing	two or more figures spatially located
Months and days	
Picture story	"The Balloon"
Pretend play	e.g., "The doctor and the patient"
Fairy tales playing	as a group

lution for each problem requires logical nonverbal reasoning. Children's responses were scored by totaling the number of correct responses.

Results

As shown in Figure 1, the two groups attained very similar scores in the first test, but considerable differences had already emerged by the end of the first and the second years, with the children attending the LIS course showing evident gains. While the line for the children who did not attend the course rises fairly steadily, the graph for the LIS group shows no such stability, reaching maximum corresponding to the two end-of-course tests and a stationary state during the summer break.

In Figure 1 two dotted lines represent the 50th and 90th percentile scores per age obtained by normative values of a sample of French children (Bourdier, 1964).



N.C. 90° = Normative Control 90° percentile scores
 N.C. 50° = Normative Control 50° percentile scores

Figure 1 RAVEN PM 47. Mean scores in the four trials for the two groups.

Table 2 Raven PM 47, mean scores and standard deviations for the two groups for each year

Group	Beginning 1st yr	End 1st yr	<i>p</i>	Beginning 2nd yr	End 2nd yr	<i>p</i>
LIS	16.0 (3.5)	21.4 (3.8)	.003*	21.6 (4.0)	24.6 (4.3)	.01**
Control	15.7 (3.0)	16.9 (4.6)	NS	19.2 (5.0)	20.9 (5.8)	NS

*Highly significant.

**Significant.

These norms were developed from 784 children from different cities in France. In Figure 1 we present four time points for the following ages: 6.6; 7.0; 7.6; 8.0. As is evident, the control children's performance on the Raven test fell within the 50th percentile score of the French sample across all of the time points. Children who attended the LIS course were initially in the 50th percentile, like the control group, but their mean performance was close to the 90th percentile at the end of both years of the LIS course.

We calculated the mean scores attained by the LIS group and by the Control group at both administrations of the Raven PM 47 (Table 2). To determine whether the two groups differed in performance from the beginning of the first year to the end of the second year, a 2×4 analysis of variance (ANOVA) was conducted, with Group (LIS course and no course) as the between-subjects factor and Trials (time point) as the

within-subjects factor. The dependent variable was the raw score of correct responses. This analysis yielded significant Group, $F(1, 26) = 4.179$, $MSE = 48.71$, $p < .05$, and Trials, $F(3, 78) = 26.886$, $MSE = 8.67$, $p < .0001$, effects, and the Group \times Trials interaction approached significance, $F(3, 78) = 2.68$, $MSE = 8.67$, $p = .053$. The main effect for Group reflected higher performance at test for the LIS group, and the main effect for Trials reflected increasing scores across trials for both LIS and control subjects.

We also examined differences between the two groups for individual trials. Group *t* tests showed no significant group differences in performance on the first trial ($t(26) = .233$, *ns*), as expected since our intention was to have similar groups. On the second trial, LIS group's performance was significantly better than that of the control group ($t(26) = 2.76$, $p < .01$). On the third trial there was a trend toward better perfor-

mance in the LIS group ($t(26) = 1.38, p = .09$). However, this may be due to the fact that the control group caught up between the end of the first year LIS course and the beginning of the second year LIS course (about 4–5 months). Finally, on the fourth trial, at the end of the second year, performance was again significantly different in the expected direction ($t(26) = 1.94, p < .05$).

These results indicate that exposure and participation in a sign language program enhances nonverbal cognitive development. The data also show that the control group caught up to some extent over the summer vacation, while the experimental group shows a performance plateau. This plateau suggests that the accelerated growth in nonverbal cognition was strictly related to the sign language course.

Study 2: Method

The results of the first study led us to conduct a second experiment to determine whether the acquisition of LIS or the exposure to a second language enhances visual discrimination and recognition of spatial relations. To address this possibility, we added as control a group of children attending an English course as second language. In addition, in order to explore whether sign language per se has specific effects on children's ability to process and memorize visual stimuli through space, we included an additional task that tapped short-term spatial memory.

Subjects. The 49 first-grade children who participated in this study came from three classes in the same school. All 20 children from one class attended a course in LIS, the 20 children of the other class attended a course in English language, and the remaining 9 children had no second language exposure. The three groups came from families living in the same neighborhood and of the same low–middle-class background. With the exception of Sign or English Language class, they were enrolled in the same school program. All children (49) are of monolingual Italian-speaking families and they had no experience with deaf culture or sign language.

Procedure. The LIS course lasted five months during the first grade with the same procedure as Study 1. The English course was held in the afternoon two hours a week. Before the beginning and soon after the last lesson of the course, all the children in our sample were given two tests: the Raven PM 47 Test (Raven, 1949), as in Study 1, and the Corsi's block-tapping test to examine visual and spatial memory (Corsi, 1972; for Italian data see Orsini, Grossi, Capitani, Laiacona, Papagno, & Vallar, 1987).

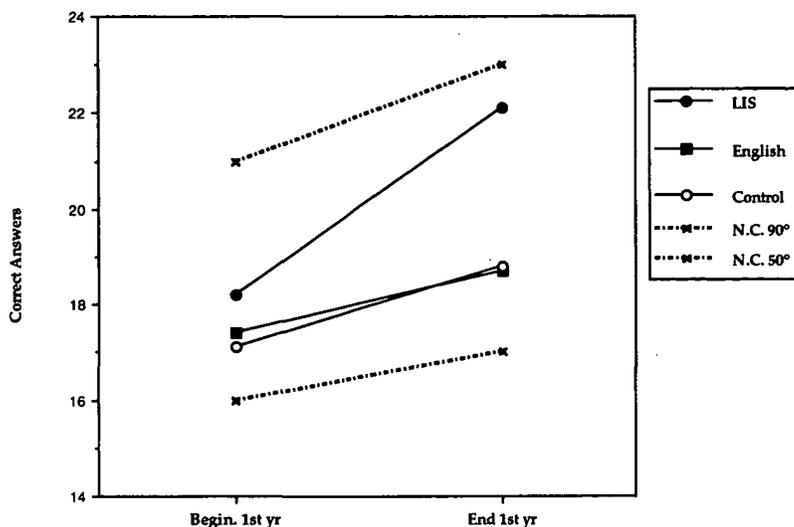
In the Corsi test, nine identical small white cubes ($4 \times 4 \times 4$ cm) are arranged irregularly on a small wooden board (26×32 cm). The sides of cubes facing the examiner are numbered from 1 to 9. The examiner taps a certain number of blocks (digits) in a particular sequence, and the subject is required to tap out the same pattern immediately afterwards. The test begins with a sequence of two units and then increasingly long sequences are presented; each time a maximum of five equal unit sequences is tapped out. In the present article, we used the procedure suggested by Orsini (1994) and Orsini, Maggiore, and Rotondaro (1996) with the variation that the test was administered with sequences of from 2 to 5 digits (for a total of 20 items). The child's score is the number of items correctly reproduced.

Results

Data from individual subjects on each of the two tests were analyzed to determine whether group differences existed in performance at the beginning and the end of the academic year.

Raven PM 47

Figure 2 and Table 3 show the mean scores obtained by the three groups of children at the beginning (first trial) and at the end (second trial) of the school year. It can be seen that on the first trial, the three groups performed similarly, with no difference among means. On the second trial, all groups showed an increase in their Raven's score, with children attending the LIS course showing a clear gain. The 50th and 90th percentile per age obtained from normative data available on



N.C. 90° = Normative Control 90° percentile scores
 N.C. 50° = Normative Control 50° percentile scores

Figure 2 RAVEN PM 47. Mean scores in the two trials for the three groups.

Table 3 Raven PM 47, mean scores and standard deviations for the three groups

Group	Beginning 1st yr	End 1st yr	<i>p</i>
LIS	18.3 (5.3)	22.2 (5.2)	.001**
English	17.5 (4.1)	18.8 (3.8)	NS
Control	17.1 (3.4)	18.9 (2.9)	NS

**Highly significant.

this test on French children are also shown in Figure 2 (Bourdier, 1964).

As it is apparent in the figure, performance on the Raven PM 47 by children enrolled in the English course and by the control children was close to the 50th percentile score in both observations. Children who attended the LIS course performed similarly to the other children on the first trial. The same children at the end of the course performed better, approaching the 90th percentile of the French sample.

A simple effects analysis was carried out on the data from the first trial to determine whether significant differences existed among the groups (LIS course, English course, and no course). This analysis revealed no significant difference, $F(2, 46) < 1$, *ns*. In contrast, on the second trial, there was a significant difference among the groups, $F(2, 46) = 3.4$, $p < .05$. Pairwise comparisons carried out on the second trial revealed

significant differences between the LIS group vs. the English and the control group, $F(1, 46) = 13.33$, $p < .01$, and no difference between the English group and the control group, $F(1, 46) < 1$, *ns*.

Corsi's Block-Tapping Test

The data in Figure 3 and Table 4 show that children who attended the LIS course and control children were equivalent on the first trial, with no difference among means. Performance in both groups increased on the second trial, with children who attended the LIS course showing again a clear gain. Children who attended the English course showed no such enhancement, but equal performance across the two trials.

A 3×2 ANOVA was carried out with Group (LIS course, English course, and no course) as the between-subjects factor and with Trials (beginning vs. end of course) as the within-subjects factor. The dependent variable was the number of correct responses. The analysis yielded a significant main effect and a Group \times Trial interaction that approached significance, $F(2, 46) = 2.66$, $MSE = 4.51$, $p = .08$. The main effect for Trials, $F(1, 46) = 8.13$, $MSE = 4.51$, $p < .01$, indicated a higher performance at the end of academic year. A simple effects analysis indicated that this interaction

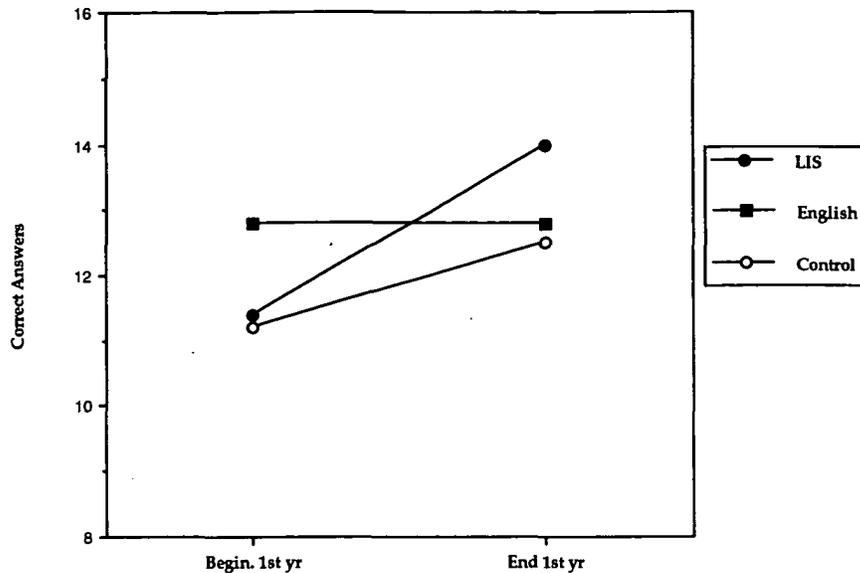


Figure 3 CORSI SPAN. Mean scores in the two trials for the three groups.

Table 4 Corsi span, mean scores and standard deviations for the three groups

Group	Beginning 1st yr	End 1st yr	<i>p</i>
LIS	11.5 (3.8)	14.1 (3.4)	.001**
English	12.8 (3.7)	12.8 (3.1)	NS
Control	11.2 (1.8)	12.6 (3.5)	NS

**Highly significant.

was solely due to an increase in the performance of children who attended the LIS course, $F(1, 46) = 14.99$, $MSE = 4.51$, $p < .001$.

Conclusion

The results of the educational experience reported here show that hearing children who learn sign language as a second language in the early school years improve more rapidly on tests of visual-spatial cognition and spatial memory than their schoolmates not attending a sign language course.

Our findings are consistent with previous studies reported on signing (Bellugi et al., 1990; Zweibel, 1987) and nonsigning (Parasnis et al., 1996) deaf children. Specifically, our results support the position that it is exposure to a visuo-gestural language per se that is responsible for enhanced visual-spatial abilities.

In our first study, the finding that hearing children attending the LIS course performed better relative to control children and in advance of their chronological norms on the Raven PM 47 is consistent with the idea that experience with sign language enhances nonverbal cognitive skills such as visual and perceptual discrimination and recognition of spatial relations (Emmorey, Kosslyn, & Bellugi, 1993). Attendance of the LIS course appears to promote faster development in nonverbal cognition: children learning LIS reach the level achieved by their schoolmates not attending the LIS course almost one year earlier.

In the second study, we examined whether the acquisition of LIS or the exposure to a second language enhances visual discrimination and memory of spatial relations. We found that children who attended the LIS course showed enhanced performance on the Raven PM 47 compared to controls, that is, to children attending an English course and to chronological norms. Similar findings were obtained on the Corsi's block-tapping test.

In summary, these results suggest that exposure to sign language among hearing children may be an important factor in the enhancement of visual-spatial cognition.

In the present article our focus was on cognitive

improvement as a consequence of sign language teaching. While the data concerning sign language acquisition by the same group of children are reported elsewhere (Capirci, Cattani, Rossini, & Volterra, 1997), we would briefly like to mention here only the major goals achieved through this educational experience in the linguistic domain.

Hearing children attending the LIS course showed an increasing interest in sign as an alternative to spoken communication, reached a basic competence in LIS, and displayed a new, spontaneous sensitivity towards the culture and communicative modes of someone differing from them: they always communicated with their deaf teacher through the appropriate visual-gestural modality rather than in speech.

These findings suggest that it would be extremely useful to offer sign language as a second language to hearing children for linguistic as well as cognitive reasons.

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Home

ASL

Deaf Culture

Deaf Community

Deaf History

Audism

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Chat Sites

Research

Legal Resources

Technology

Interpreting

Linguistics

Education

Families

Kids' Stuff

FAQ

Search

Deaf Education Options Guide

Learning Environments

◀ Back

Next ▶

[Residential Schools for the Deaf](#) | [Day Schools](#) | [Early Intervention & Preschool Programs](#)
[Mainstreaming & Inclusion](#) | [Self-Contained Classrooms](#) | [Home School Environment](#)
[Directory of Schools for the Deaf in America](#)

Residential Schools for the Deaf:

Traditionally, residential schools have had a long and venerable history in this country. They are well known for being bastions of Deaf Culture and most deaf kids who attend them eventually learn ASL. Residential school enrollment has decreased due to two major factors. Since mainstreaming became an option for many children, parents began sending their children to local schools. “At the schools for the deaf, everyone is amazed. Mainstreaming caught them completely off-guard. ...They never expected to face losing students to the public schools.”¹¹³ Also, the population of deaf children has decreased due to vaccinations like the Rubella vaccination. As a result, a number of schools have closed. For the most part, the schools that remain open have opened Day School programs. In addition, many of these schools have needed to take in children with multiple handicaps in order to keep their doors open. “Enrollment showed a slight decline in the seventies...Then suddenly, mainstreaming got serious, and there wasn't much money...Suddenly, the school began looking for kids in the really closed institutions, like the Rome Developmental Center.”¹¹⁴

There are real advantages to residential schools. The schools are designed with the needs of deaf

students in mind. Some of the schools have excellent programs. The opportunity for peer interaction is available, as are extracurricular activities like boy scouts and after school clubs. “The students are involved in student government, peer study-groups, volunteer activities in the community at large, sports ...all kinds of extra-curricular activities.”¹¹⁵ A child who lives in a locality where he is the only deaf person for miles in any direction is able to meet other deaf children. Deaf kids have adult Deaf role models. “Educators and parents who advocate for the availability option point out that the presence of deaf adults who are well-educated and fluent in sign language has a significant long-term impact on young deaf children’s educational and personal well-being.”¹¹⁶ In many cases, friendships are made that last a lifetime. The children are exposed to the cultural values of the Deaf community and to the language of the Deaf, ASL.

There are some real disadvantages as well. Many families are not comfortable sending young children away to school. Some families feel that the home and family is the best environment for any child. ‘I do not recommend for deaf students to stay at residential schools for a number of reasons. These deaf children need to be with their family where there is love, discipline and nurturing. The residential supervisors’ are not capable of meeting every deaf child’s needs (emotionally and physically).¹¹⁷ Many parents feel that the act of sending their child to residential school isolates the child from the family. Finally, there is the issue of the quality of the education itself. Education quality varies from school to school. “One suggestion for finding out if a residential school has a good program [is to] ask around and see how many of the students there have deaf parents. The deaf community is pretty close-knit, and word travels fast on the grapevine. If a certain residential school is significantly good, many deaf families actually uproot and move into that school’s neighborhood. Also, deaf children with deaf parents experience no language barriers at home...and thus many of them have age-appropriate language and communication skills. The schools that these children attend usually have a curriculum which reflects this.”¹¹⁸

There are three oral residential schools in this country: Clarke School, The Central Institute for the Deaf and St. Joseph’s Institute for the Deaf. They serve the oral deaf extremely well. One young lady had this to say: “I went to the Clarke School for the Deaf for seven years. It was an awesome experience. I learned to be confident and to be a leader at an early age.”¹¹⁹

Day Schools (Oral or Sign):

The Day School placement is one of the best compromises between the residential school and mainstreaming. Children can remain at home and are still able to take advantage of a school that is staffed with people who have the special training needed to educate deaf kids. The same kinds of programs and accommodations found in the residential schools can be found in the Day School

placement.

The disadvantage to Day School placement is availability. Day Schools are found as a part of the Residential School programs. They are also found in metropolitan areas. If a parent's job requires him to move to a remote area, a Day School program may not be an option.

Early Intervention & Preschool Programs:

These programs tend to the needs of children ranging in age from birth to four years. Public schools, local health and human services departments, residential schools and private organizations can run early intervention programs. Some schools have programs that use the services of itinerant teachers. One professional teacher cautioned parents to realize that teachers who deal with children age birth through three are often have a general special education degree. Parents need to seek out teachers who have a Masters degree in deaf education.

The focus of these programs is, in a word, preparation. Preschool is important because it helps children learn how to function socially and within the family. The preschool program emphasizes the following skills: language development, parent-child communication and social skills. These programs also teach strategies for enhancing the child's development, signing skills and speech training.¹²⁰ These communication and coping strategies are important as the children enter kindergarten.

Mainstreaming & Inclusion:

Mainstreaming is a placement option in which children go to regular classes and they also go to some special education classes. These classes are called resource classes and are taught by specially trained teachers. Inclusion is a placement option in which the children are totally involved in all aspects of public education. Partial mainstreaming is a placement option in which children spend a portion of the day at the residential or day school and part of the day in public school.

Mainstreaming and Inclusion are supposed to allow deaf children access to regular education. One common complaint about the Mainstream setting is that the children are only in the regular classrooms for non-core subjects such as Physical Education and Art. The children generally learn their core subjects in the Resource Room. The act of placing a child in a Resource Room for a portion of the day can generate challenges. This dual learning environment can produce similar stigmas to those found in earlier generations when children had to leave the classroom for remedial education. In a dual environment, social integration comes into play. Children that are not a part of the classroom for a significant portion of the day have difficulty becoming integrated with their peers. Academic achievement also seems to be lower. Partial Mainstreaming between two different schools requires commuting time that breaks up the school day. This wastes valuable learning time. Students mainstreamed for 5-10 hours a week do consistently worse than students mainstreamed for 16 hours a week.¹²¹ "The key is to identify the right

kind of program for the child in the first place and closely monitor academic and social progress for signs of the programs appropriateness or inappropriateness.”¹²²

Parents who choose Mainstream or Inclusion environments need to be aware that most children require support services if they have more severe losses. These services include notetakers, well-trained transliterators and interpreters. The children may also require preferential seating so that they can clearly see the teacher. Many schools provide interpreters and transliterators, however, it is not uncommon for schools to secure the services of interpreters and transliterators that do not have appropriate qualifications. Parents need to intercede on behalf of their child if the interpreter or transliterator is not doing an adequate job. A good interpreter or transliterator faithfully communicates all that is said by the teachers and students. They also give the child access to some of the environmental sounds that occur during the interpreting session. Interpreters and transliterators are bound by a Code of Ethics and may not discuss the details of an interpreting session. Children need notetakers in the upper grades because they cannot look down to write.

Interpretation within the Mainstream or Inclusion environment can be viewed from more than one angle. On the one hand, the interpreter can act as a link to classroom and all that is within it. “...I went to a hearing school. As the only deaf student, though, I experienced a lot of difficulty. Once my school hired a sign language interpreter, however, I had access to my education. I was able to stay at my school instead of flunking out.”¹²³ Classroom situations are usually rife with group discussions. The presence of an interpreter can be useful in these situations, since group discussions are particularly difficult for most deaf individuals to follow. Interpreters, however, are not educators. If a child is having difficulty with a concept, the child/teacher pair must always go through a third party. On the other hand, deaf children are often isolated from their peers, even with an interpreter. The free and easy communication that occurs between children is less likely to happen between a deaf child and his hearing peers, even with an interpreter. The learning that comes from that social interaction is also less likely to occur.

A child that is in a Mainstream or Inclusion environment without the services of an interpreter or transliterator has greater challenges. Children that do not have support services miss out on most, if not all of group discussions. They miss out on incidental learning from their peers. These kids can feel isolated from their peers. Many teachers pace the floor or face the blueboard during class. Children that rely on speechreading may have difficulty understanding a moving target or no target at all. Deaf adult respondents frequently mentioned the inability to understand teachers and classroom isolation as difficulties that they needed to contend with during their school years. “The negative aspects were frustrating feelings of isolation and lack of access communication-wise (I missed out on so much content until finally getting a sign language interpreter in the ninth grade).”¹²⁴

There are positive aspects to Mainstreaming and Inclusion. A child that is in these types of environments has the opportunity to meet and interact with hearing peers. They are also exposed to a regular curriculum. These children often learn how to be self-starters. They develop excellent study habits that serve them well as adults, often as a direct result of the inability to understand the teacher and the other students.

Self-Contained Classrooms:

Some public school systems have self-contained classrooms. These classrooms only contain children who are deaf or hard of hearing. The teachers in these classrooms are specially trained in deaf education. The benefit of this kind of classroom is that all the children are using the same form of communication so the issue of peer isolation is addressed. The teacher also uses some form of sign supported speech unless the school has an oral program. This addresses the issue of using a third party to communicate. The child can go to a school relatively close to home, yet will have some of the same advantages as the oral or residential school.

Since the self-contained classrooms are located in regular public schools, the special visual needs of the deaf students are not usually taken into consideration. Special items such as TTY access, visual-paging systems, carpeting in classrooms and emergency flashers may not be available. Children that wish to take part in after-school activities may not find them as accessible as they would in a residential school environment due to communication barriers.

Home School Environment:

Many times parents and school districts cannot agree on the issue of “appropriate” education. When this occurs, some parents opt to homeschool their children. Homeschooling is currently a popular alternative to traditional methods. An impressive number of parents that have deaf children have decided to either homeschool full-time, or homeschool part-time as a supplement to regular education. Benefits of homeschool education include clear communication, one-on-one attention, and teaching methods that are adapted to the child’s educational needs and learning style. In addition, the child can work at his own pace and the parents can choose a communication system that works for their child. Children that are under an IEP may receive support services from the State.

However, some parents do not choose this option and prefer to hire their own specialists. Schools are not open to the idea of homeschooling and recommend against it. One parent said “I was convinced that homeschooling was best academically, spiritually, and emotionally for my other two children, but was constantly reminded that I should never expect to meet Joel’s needs on my own. I was convinced that I was incompetent to teach Joel.”¹²⁵ Yet parents willing to put in the time and effort to create a quality

homeschool program often succeed where school systems fail because the program can be tailored to the child's needs. When homeschooling supplements public school programs, the results can be astounding. "I spent 1-2 hours in the afternoon homeschooling. As a result, my son is leader in the classroom and is one of the best students in his class. I will continue to homeschool in the areas of weakness in order to keep him on the same level as his peers."¹²⁶ Homeschoolers handle the issue of peer socialization through homeschool networks and other activities that include groups of children. "We are grateful for the connections we've made through our son's experience in the regional program for the deaf. Homeschooling can isolate your child from other deaf/hh kids, so it takes extra effort to find opportunities to connect with other deaf kids and their families. The regional program has benefited us with these connections. Some homeschoolers are afraid to be involved at all with the public school system, but for us it's been a helpful resource."¹²⁷

Learning Environments

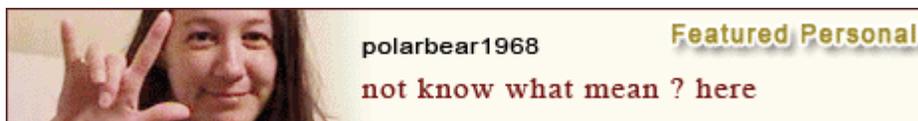
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American Sign Language as a pathway to linguistic competence

[Exceptional Children](#) , Spring, 1998 by [Erik Drasgow](#)

The search for the most effective way to educate deaf students in America has a history of conflict among advocates of different approaches. For example, the period between the 1860s and the 1960s has been referred to as the "Hundred Years War" because of the enduring struggle between oral English proponents and manual signed language proponents (Lou, 1988). The conflict persists, although today it is embodied in the debate between advocates of the American Sign Language (ASL) bilingual/bicultural approach (e.g., Barnum, 1984; Drasgow, 1993; Johnson, Liddell, & Erting, 1989; Lane, Hoffmeister, & Bahan, 1996; Marmor & Petitto, 1979; Reagan, 1985) and advocates of the Manually Coded English (MCE)/Simultaneous Communication approach (e.g., Bornstein, 1982; Luetke-Stahlman, 1988a, 1988b; Maxwell & Bernstein, 1985).

This disagreement over the best approach for educating deaf students is not simply a discussion over which language or code is best to use, but rather it represents profound, and often polarized, differences in educational philosophy. That is, specific educational methods are grounded in, and driven by, the philosophy, or metatheory, one subscribes to. Metatheory refers to a way of thinking or a viewpoint about issues (Baars, 1986; Bunge & Ardila, 1987; cited in Paul & Jackson, 1993). The current conflict in deaf education, at the metatheory level, is between the clinical-pathological model (hereafter referred to as the clinical model) and the cultural model. The clinical model represents one point of view, namely, a view in which deafness is characterized as a disability stemming from a biological deficit (i.e., a lack of hearing). Thus, educational goals focus on overcoming, or compensating for, hearing loss so that students can learn to speak, read, and write English. Educational methods used to accomplish this goal include amplification, speech reading, and representing English on the hands (i.e., manually coded English).

Conversely, within the cultural model, deafness is viewed as a difference, not a disability. The conceptual framework of this model includes acknowledging that deaf people have a unique identity, with their own language, history, and social organization. From this viewpoint, deafness is a cultural, rather than biological, phenomenon. (For a complete discussion of the clinical and cultural models of deafness, see Lane, 1992 or Paul & Jackson, 1993.) Educational approaches based on this model embrace the use of ASL as the language of instruction.

The recent move towards the ASL bilingual/bicultural approach is rooted in part in the growing metatheoretical acceptance of the cultural model of deafness by both deaf and hearing individuals. The deaf community supports the cultural model because it empowers them with increased authority and responsibility to make decisions that influence the lives of deaf children and adults; likewise, the hearing community is beginning to support the model

because of their increased knowledge and understanding of the value of ASL and Deaf culture (Paul & Jackson, 1993). This growing acceptance of the cultural model gains further support when it is combined with the increasing dissatisfaction with current outcomes of educational approaches based on the clinical model (e.g., the average reading level of deaf high school graduates is around 3rd or 4th grade level; Allen, 1986). Thus, the ASL approach does indeed have intuitive appeal for the cultural model advocates. But intuitive appeal alone does not warrant the implementation of an entirely new approach; instead, educational change, or reform, ought to be motivated by existing empirical research.

With this in mind, the purpose of this article is to present research that supports the shift to an ASL approach on empirical grounds. To do this:

- * I will suggest guidelines for determining who may benefit from an ASL approach.
- * I will review current theoretical perspectives on language acquisition.
- * I will offer evidence that exposing some deaf children to a natural language (i.e., ASL) to which they have full access results in normal and successful language acquisition if the exposure occurs at an early age.
- * I will show that this successful language acquisition then can serve as a means for acquiring and organizing information about the world, and that this real world knowledge can serve as the foundation for literacy development even if ASL linguistic skills may not automatically transfer to English literacy skills.
- * I will provide recommendations intended to enhance the transfer of ASL skills to English literacy.

WHO CAN BENEFIT FROM AN ASL APPROACH?

Historically, adherence to a particular philosophy has driven the selection of specific educational approaches for deaf children (Lane, 1988, 1992; Paul & Jackson, 1993). Although a philosophy can, and should, be based on empirical research, little, if any, exists that correlates student characteristics with educational approaches and predicts or compares outcomes. Thus, this is an area that is begging for future research so that parents and educators can make data-based decisions as well as philosophical choices regarding their selection of an approach. This article is intended as a first step toward integrating philosophy and empiricism. Until more evidence is collected to settle the "best choice" question, the preliminary information presented in this article suggests that an ASL approach is appropriate for any deaf child if (a) parents or educators subscribe to the cultural perspective of deafness, (b) the child has a hearing loss so severe that he or she is connected to the world by sight, or (c) parents initially have opted for a clinical approach, but see limited immediate results.

- 1
- 2
- 3
- 4
- 5
- 6

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American Sign Language as a pathway to linguistic competence

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THEORETICAL PERSPECTIVES ON LANGUAGE ACQUISITION

How children acquire a natural language has resulted in considerable controversy among leading language researchers. (For a review, see Bloom, 1994.) At the center of this controversy is whether language acquisition is the product of general cognitive and learning capacities (e.g., Anderson, 1983; Rumelhart & McClelland, 1986) or whether it is the product of a specific, and innate, language "organ" or faculty (e.g., Chomsky, 1965, 1980; Fodor, 1983). Proponents of the general cognitive capacity perspective maintain that abilities such as attention, perception, discrimination, and memory are sufficient for a child to induce the structure and rules of a language from adequate linguistic input. Proponents of the innate biological perspective maintain that language acquisition is the product of a specific mental organ or faculty and thus, there is no "learning" of language, but rather the growth, or unfolding of this specific faculty under certain environmental conditions. Although I believe that language acquisition most likely results from some combination of both specific and general abilities, it is not my intention to determine the degree to which each influences language acquisition. Instead, I intend to draw one conclusion from this ongoing debate, namely, despite disagreements over the nature and degree to which innate characteristics contribute to language acquisition, one thing remains clear: Successful language acquisition does not occur without access to adequate environmental linguistic input. It is my aim to stress that many deaf children have normal, and intact, language learning abilities, and that successful language acquisition for these children can be expected when (a) they have full access to all aspects of a language (i.e., phonology, morphology, and syntax), and (b) the language to which they have full access is a natural one.

AMERICAN SIGN LANGUAGE

Structure

We have known for over 35 years that ASL is a bonafide language (Stokoe, 1960) with a structure quite different from spoken English (e.g., Klima & Bellugi, 1979; Padden, 1988; Siple, 1978; Valli & Lucas, 1992). Thus, ASL is not a manual representation of English, with individual signs corresponding to English words. Rather, it is a complete language, with all the properties of other languages of the world, but one that has evolved independently of, and separately from, English. The purpose of the following brief overview of ASL is to highlight some specific aspects of a natural language that exists entirely in the visual-gestural modality and has evolved to meet the linguistic needs of its users, and therefore, it is a language fully accessible to deaf individuals.

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American Sign Language as a pathway to linguistic competence

[Exceptional Children](#) , [Spring, 1998](#) by [Erik Drasgow](#)

1. Hand configuration, or the shape of each hand. (There are about 40 distinct handshapes.)
2. Place of articulation, or the area on the signer's body where the sign is produced. (There are about 20 distinct locations.)
3. Orientation of the articulator(s), or the orientation of the hand(s) in relation to the body. (There are about 10 distinct orientations.)
4. Movement, or the motion of the hands from one point to another in the signing space (Friedman, 1975; Liddell & Johnson, 1989; Stokoe, Casterline, & Croneberg, 1965).

The phonological properties of ASL attest to the universality of basic structure in human languages.

Second, the morphological processes of English form and change words by adding prefixes or suffixes to a word stem. This process occurs in a sequential, or linear, fashion. For example, tense is marked by adding an inflection to the end of the word (e.g., "walk" + "-ed"), or word class changes can occur by adding a suffix to the end of the word (e.g., "improve," a verb, is changed to a noun by adding "-ment" at the end of the stem boundary to form "improvement"). ASL morphology is organized in a simultaneous rather than sequential fashion (Klima & Bellugi, 1979; Supalla, T., 1990). That is, rather than adding prefixes or suffixes that extend the length of a word, ASL morphology operates by nesting the sign stem within dynamic movement contours. These movement contours are not affixed to the beginning or end of the sign stem, but rather occur simultaneously within the sign. For example, a slower, single movement is associated with a particular set of verbs (e.g., "improve"), whereas a faster, repetitive movement is associated with nouns (e.g., "improvement"; Supalla, S. J., 1991; see also Supalla & Newport, 1978). The simultaneous morphology of ASL is strictly rule-governed and allows signers to exchange ideas (referred to as propositions) at the same speed, or rate, as speakers of conversational English exchange ideas (Klima & Bellugi, 1979).

Third, the syntax of English has a canonical subject-verb-object (S-V-O) word order. Word order in English is important because there are few inflections to show grammatical relations. Although ASL has a basic S-V-O word order like English, this pattern does not dominate ASL (Fischer, 1975; Isenhath, 1990; Liddell, 1980; Siple, 1978). Sign order in ASL is more variable than English word order, and it is governed by grammatical facial expressions, spatial syntax, and other nonmanual behaviors (Bellugi, Lillo-Martin, O'Grady, & vanHoek, 1990; Liddell, 1980). For example, facial expression and head position can be used to alter word order by

Reference Publications

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[Exceptional Children](#) , [Spring, 1998](#) by [Erik Drasgow](#)

Finally, the use of signing space in ASL plays a large and complex role. Space is used as a syntactic mechanism to show grammatical relations among entities by assigning them an arbitrary location within the signing space (Friedman, 1975; Lillo-Martin & Klima, 1990; Meier, 1990; Zimmer & Patschke, 1990). These arbitrary locations are then referred to throughout the discourse to designate both (a) pronominal and anaphoric reference (e.g., he or she) and (b) case relations (e.g., he vs. him, or subject vs. object). Pronominal reference is established by "pointing" to designated locations within the signing space, and case relations are established by the directionality of verb movement between and among the prearranged locations (i.e., where in the signing space the motion of the verb begins and ends), although more recent work by Liddell (1995) on reference and sign space challenges the analyses stated above.

The previous section presented some aspects of ASL to show that it is a natural language, and like all natural languages, it has rules for generating grammatically sound phonological, morphological, and syntactical structures. Moreover, ASL exists in a visual medium and therefore can be fully accessible to many deaf children. The next section offers evidence that when these children have full access to a natural language, they acquire it in a normal and predictable manner.

Acquisition

Language acquisition starts immediately at birth, if not before. Research shows that hearing infants as young as 1 week prefer natural speech sounds over nonlanguage sounds (Mehler et al., 1988; Werker, Gilbert, Humphrey, & Tees, 1981; Werker & Lalonde, 1988); that by the age of 6 months, hearing infants can discriminate between the speech sounds of the language to which they have been exposed and other existing natural language speech sounds (Werker et al., 1981; Werker & Lalonde, 1988); and that by around 1 year of age, hearing children lose the ability to discriminate speech sounds of all natural languages, but their ability to discriminate among the phonologically relevant speech sounds of the language to which they are exposed is well developed (Jusczyk, Friederici, Wessels, Svenkerud, & Jusczyk, 1993). The first year of life may be the most important for language acquisition because the recognition and discrimination of the relevant phonological building blocks of a language provides entry to the morphological and syntactical components of that language.

The ability to discriminate the relevant speech sounds of a language is reflected also in the course of babbling. By the end of the first year of life, hearing children are adept at producing many of the sounds of their language (Oller, 1980) and even are beginning to produce their

first words (Ingram, 1989).

If deaf children have complete access to language, they, too, proceed along a similar course of linguistic development; and this similarity is supported by the compelling evidence of Petitto and Marentette (1991). These researchers collected data on the manual activities of five children, two of whom were deaf children of deaf parents and were acquiring ASL as their first language, and three of whom were hearing children serving as controls. All children were videotaped at three ages (approximately 10, 12, and 14 months), and their manual behaviors were then analyzed. This analysis revealed that deaf and hearing children produced similar types and qualities of communicative gestures (e.g., raising arms to be picked up, holding a cup to lips to drink), but differed greatly in their production of manual babbling (i.e., manual activities conforming to the phonetic and syllabic organization common to signed languages). Indeed, the deaf infants in this study used "a reduced subset of the phonetic units found in ASL" (p. 1494), and 98% of the deaf children's manual babbling "was produced within a restricted space in front of the body" (p. 1494). In sum, the deaf children's babbling (a) consisted of relevant phonetic and syllabic units of ASL, (b) occurred in the appropriate signing locations, (c) progressed through similar stages as hearing children's babbling (e.g., progression from phonetic babbling to syllabic babbling), and (d) proceeded on a similar time course as hearing children's babbling. This study supports the fact that there is a predisposition in children to locate and attend to linguistic input regardless of modality, and that babbling in either modality (i.e., speech or manual) serves as the means by which children "discover the map between the structure of a language and the means for producing this structure" (p. 1495). This early stage of linguistic development begins the "bootstrapping" process by which children (deaf or hearing) gain entry into other linguistic domains (i.e., morphology, syntax).

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- 19

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Reference Publications

Topic: [RSS Feed](#)

American Sign Language as a pathway to linguistic competence

[Exceptional Children](#) , Spring, 1998 by [Erik Drasgow](#)

Deaf children acquiring ASL from their deaf parents pass through the babbling stage and progress to the one-word stage in a fashion similar to their hearing counterparts (Newport & Meier, 1985; Orlansky & Bonvillian, 1985; Petitto, 1988). The one-word stage begins around 1 year of age for hearing children (Brown, 1973; Ingram, 1989; Nelson, 1973) but the first ASL sign may emerge somewhat earlier (Bonvillian, Orlansky, & Novack, 1983). Some reasons why a deaf child's first ASL sign may emerge earlier than a hearing child's first spoken word include: (a) motor skills used for signing may develop earlier than motor skills used for speaking (Bonvillian et al., 1983), (b) early approximations of signs are more recognizable than early approximations of words (Newport & Meier, 1985), and (c) signs may be more salient to a deaf child than words are to a hearing child (Newport & Meier). Note, however, that some researchers (e.g., Petitto, 1988) have questioned the claims of an earlier onset of sign language compared to spoken language. The nature of these questions centers around the validity of the criteria used in assigning linguistic status to deaf children's early communicative gestures (cf., Goodwyn & Acredolo, 1993).

Although signs may be more salient to a deaf child than words are to a hearing child, it appears that sign iconicity (i.e., how much a sign resembles its referent) does not influence the rate of acquisition (Pizzuto, 1985). In a comprehensive literature review of ASL acquisition, Newport and Meier (1985) note that "the acquisition of ASL proceeds in ways analogous to the acquisition of formally comparable languages, and that iconicity is virtually never a contributor to the acquisition process" (p. 916). Children exposed to ASL as their native language then move on to produce two-word sign utterances (the stage of early syntax) around the middle of the second year (Meier, 1991; Newport & Ashbrook, 1977), which is about the same time as hearing children (Brown, 1973).

Unlike English, ASL is a morphologically complex language (Klima & Bellugi, 1979; Supalla, T., 1990). ASL inflectional morphology includes the processes by which verb signs are systematically altered to indicate grammatical categories such as agreement for person and number. Verb agreement often involves obligatory movement of the verb sign in space from subject to object, although this movement is optional for some verbs, and the agreement of some verbs is restricted to a single location. Deaf children acquire this system in a predictable sequence: In the two- and three-sign stage (around age 2), signing children do not inflect verbs, instead they use uninflected forms. During the next stage (between the ages of 2 and 3), they begin to produce inflected forms of verbs, and finally, at ages 3 to 3 years, 6 months, signing children master and consistently use the appropriate verb agreement system, with some overgeneralization of movement to restricted-movement verbs (Bellugi, 1988; Meier, 1981, 1982, 1991). Acquisition of derivational morphology proceeds similar to that of hearing

children. In summarizing deaf children's morphological acquisition, Bellugi (1988) notes two things of interest: First, the acquisition of ASL morphology is not influenced at all by iconicity, and second, and more importantly:

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American Sign Language as a pathway to linguistic competence

[Exceptional Children](#) , [Spring, 1998](#) by [Erik Drasgow](#)

Mothers do occasionally mold and shape young children's hands in signing. Our evidence suggests, however, that the practice is steadfastly and systematically ignored by signing children who firmly hold their ground, continuing their incorrect analysis and resulting errors, until they arrive at their own reorganization of the language system. The evidence so far suggests, then, that the course [of development] of these morphological processes is remarkably like that for spoken languages (p. 171).

Taken together, the evidence presented above supports the claim that when deaf children have full visual access to a natural signed language, they acquire it in the same effortless manner as hearing children acquire a spoken language. It is also important to emphasize that these children, like hearing children, acquire language from rich exposure in natural contexts, and by seeing others use language in meaningful situations. Furthermore, these children do not acquire ASL via formal teaching, nor do they benefit from being "corrected" by adults, just as hearing children do not benefit from grammatical corrections (Braine, 1971; Brown & Hanlon, 1970; McNeill, 1966).

The Importance of Early Exposure

By now it should be clear that deaf children can acquire fundamental aspects of language in a conventional manner when they have full access to a natural language. But one additional factor is important regarding these children's language acquisition: Full access to a natural language must occur during the early years of childhood. The idea that there is a "critical

Reference Publications

Topic: [RSS Feed](#)

American Sign Language as a pathway to linguistic competence

[Exceptional Children](#) , Spring, 1998 by [Erik Drasgow](#)

The results of these studies support the critical-age hypothesis for language learning. That is, those learners who acquired language at an early age achieved higher levels of language proficiency (as measured by various production and comprehension tasks) than those learners who began acquiring language at a later age. Moreover, this critical age effect held regardless of (a) the length of exposure to a language or (b) whether the language learned was a primary or second one. The age at which a decline in task performance first appeared varied from initial exposure beginning as early as 4 years of age (Newport, 1984; Newport & Supalla, 1990) to initial exposure beginning as late as 10 years of age (Johnson & Newport, 1989), after which the ability to learn a language slowly and steadily declined. Despite the consistent linear decline with age, language never became totally unlearnable. For example, basic word order rules presented very few problems for learners regardless of age, but conversely, morphological processes continued to be a problem despite years of language use.

Perhaps the most important contribution of Newport and her colleagues is not the finding that the age of initial exposure to a language affects the ultimate achieved proficiency in that language, but rather the way in which early and late learners differ in their language learning characteristics. Based on the different types of errors that early and late learners make, these researchers suggest that early learners perceive and represent linguistic input in sections and pieces (i.e., as phonological and morphological segments), whereas later learners tend to perceive and represent linguistic input as large and complex structures. For example, although native-speaking English children perceive a stem and its inflection as having two separate components (e.g., "look" + "-ing"), late learners tend to perceive a stem and its inflection as a single entity (see especially Newport, 1988). Similarly, although native-speaking deaf children perceive the movements that comprise a sign stem and its inflection as having two separate components (e.g., "eat" and the movement contour indicating aspect), deaf late learners may perceive the verb and the movement as a single entity. This explanation would account for the problems late learners encounter, especially in the area of inflectional morphology.

The work by Newport and her colleagues has substantial relevance to language acquisition in general in that it confirms the necessity of providing children with early and adequate exposure to a language. It also has specific relevance to those children who have a hearing loss so great that, even with amplification, they rely primarily on vision, rather than hearing, to communicate. For these children, ASL may be the best choice to facilitate normal linguistic development. This is because it is a natural language existing in the visual modality and therefore it is fully accessible to these children who rely mainly or entirely on signed input for communication. In addition, when ASL is the appropriate linguistic medium for a child, it is critical to begin exposure as early as possible (i.e., prior to the beginning of the child's formal

Reference Publications

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American Sign Language as a pathway to linguistic competence

[Exceptional Children](#) , Spring, 1998 by [Erik Drasgow](#)

BENEFITS OF EARLY EXPOSURE TO ASL

The Evidence

Earlier research compared the performance of deaf children of deaf parents with deaf children of hearing parents. These comparisons revealed consistent and significant advantages for the children of deaf parents both in English language development and in educational achievement (Bonvillian, Charrow, & Nelson, 1973; Brasel & Quigley, 1977; Charrow, 1976; Charrow & Fletcher, 1974; Geers & Schick, 1988; Meadow, 1968; Stevenson, 1964; Stuckless & Birch, 1966; Vernon & Koh, 1970). Moreover, Geers and Schick (1988) found that, over time, the children of deaf parents in their study exhibited better speech skills (i.e., spoken English) than the children of hearing parents participating in this study.

Some researchers have attributed the academic advantages of children of deaf parents to the development of an internal-language base resulting from exposure to a natural language (i.e., ASL) that was fully accessible to them during early childhood (e.g., Braden, 1994). This early development of a first language is also suspected of producing faster processing skills (e.g., problem-solving, answering questions). Conversely, many children of hearing parents may not have the same internal-language base because (a) lipreading and speech training does not always result in normal English language acquisition (Quigley & Kretschmer, 1982; Wilbur, 1979); (b) parents may not possess adequate signing skills to communicate with their children (Bornstein, Saulnier, & Hamilton, 1980; Mindel & Vernon, 1987; Swisher, 1984; Swisher & Thompson, 1985); and (c) MCE systems invented to "represent English on the hands" are not natural languages and aspects of the systems may not be learnable to children attempting to acquire the system (Drasgow & Paul, 1995; Gee & Goodhart, 1985; Maxwell, 1983, 1987; Schick & Moeller, 1992; Supalla, S. J., 1990, 1991). Thus, the higher achievement levels of children of deaf parents may be influenced both by their rich linguistic history and by the inadequate or inappropriate linguistic input to which children of hearing parents are exposed.

Other researchers, however, have attributed the academic advantages of children of deaf parents to factors other than, or in addition to, ASL. For example, Paul and Quigley (1994) maintain that the better performance of some of these children may be an effect of greater parental acceptance of deafness, which increases successful parent-child interactions. This acceptance, in turn, contributes to the child's higher self-esteem, which consequently results in higher achievement. It also is possible, however, to find high levels of parental acceptance for children of hearing parents, and of parents who used speech with their children (e.g., Corson, 1973; Messerly & Aram, 1980). Another alternative explanation is related to the cause of

deafness. Children of hearing parents may have an etiology of deafness related to birth problems or medical conditions (e.g., maternal rubella, meningitis) that could be associated with concomitant cognitive problems (Wolff, Kammerer, Gardner, & Thatcher, 1989).

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Reference Publications

Topic: [RSS Feed](#)

American Sign Language as a pathway to linguistic competence

[Exceptional Children](#) , Spring, 1998 by [Erik Drasgow](#)

Until recently, no one had directly tested the relationship between ASL and the academic performance of children of either deaf or hearing parents. Two exciting new studies have provided empirical evidence of a positive relationship. First, Prinz et al. (1996) examined the relationship between ASL competence and English literacy (i.e., reading and writing) and found initial evidence of a strong and positive correlation. Second, Strong and Prinz (1997) validated this relationship and added precision to it by determining that (a) the level of ASL proficiency is related to the level of English literacy and (b) differences in performance between children of deaf mothers and children of hearing mothers disappear except at the lowest level of ASL ability when ASL levels are held constant. These studies clearly demonstrate that some deaf children's English literacy achievement benefits at even moderate levels of ASL proficiency. Furthermore, when deaf children acquire ASL during childhood, there are benefits in language comprehension abilities that persist throughout the individual's lifetime (Mayberry & Eichen, 1991). In sum, these studies confirm that early exposure to ASL has enduring linguistic advantages and that increases in ASL fluency are associated with increases in English literacy achievement regardless of parental hearing status.

The Importance

The previous section provided evidence that successful language acquisition (any language acquisition) results in advantages in the acquisition of academic skills. Not only is this stance supported by the empirical evidence presented previously, but it is also supported on logical grounds. That is, deaf children who have acquired a natural language system (i.e., ASL) have a mode through which they have (a) access to information and (b) a means to organize and express this information. Children with an impoverished language system have limited access to information and an incomplete means for organizing information.

Johnson, Liddell, and Erting (1989) put forth this perspective in their paper titled "Unlocking the Curriculum: Principles for Achieving Access in Deaf Education." They develop a persuasive and compelling argument for using ASL as the language of instruction for all deaf children regardless of family background or degree of impairment. They emphasize that many of these children often begin their educational careers with little or no competence in a natural language, and thus, they have severely restricted access to curricular information, which obviously impacts negatively on potential academic achievement. But this perspective needs to be extended beyond the emphasis on curricular material and beyond the emphasis on deaf children. Before any children, either deaf or hearing, begin to attend school they need to have mastery of the conversational form of a language. This mastery assures that children are already "educated" in the social, cultural, and general information that serves as the foundation

Reference Publications

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American Sign Language as a pathway to linguistic competence

[Exceptional Children](#) , [Spring, 1998](#) by [Erik Drasgow](#)

Literacy Development

Literacy has been defined as "Using printed and written information to function in society, to achieve one's goals, and to develop one's knowledge and potential" (Literacy Definition Committee, 1992). Throughout this article I have advocated an ASL approach to English literacy for many deaf children, especially those who are reliant on visual communication. This advocacy is based on the evidence that (a) ASL is a bonafide and natural language to which these children have full access, (b) children exposed to ASL acquire it in a normal and predictable manner (e.g., Newport & Meier, 1985), (c) children exposed to ASL at an early age academically outperform deaf children with little or no early ASL exposure (e.g., Charrow & Fletcher, 1974; Geers & Schick, 1988), and (d) children with even moderate levels of ASL fluency manifest benefits in English literacy (Prinz et al., 1996; Strong & Prinz, 1997). I believe that this evidence presents a strong case for the use of ASL as the native and, thus, conversational language for some deaf children, but so far it does not specify how, or how well, ASL can serve as a formal "bridge" to English literacy. The nature of this "bridge" merits close examination.

To begin, Mayer and Wells (1996) suggest that the transfer of language skills from conversational ASL to English literacy should not be assumed or expected. This is because ASL has no written form, and consequently deaf students do not have existing literacy skills in ASL that can transfer to written English. Moreover, they speculate that any transfer from ASL to English is problematic because the respective structures of each language are quite different, in both form and modality. In sum, Mayer and Wells note that deaf children can acquire the conversational form of ASL, and that this conversational form of ASL can serve as the basis of "inner speech" (i.e., the language of thought). However, this "inner speech" does not automatically allow access to the code of written English because of structural differences that make the two incompatible, especially at the phonological level. Thus, Mayer and Wells say that the possibility of linguistic transfer from ASL to English at the grammatical level is unlikely.

Mayer and Wells (1996) indicate that ASL linguistic skills are not likely to transfer to English at the grammatical level. If this is true, what then accounts for the fact that (a) deaf children of deaf parents attain higher levels of academic achievement (e.g., Brasel & Quigley, 1977; Charrow, 1976) than deaf children of hearing parents and (b) ASL proficiency is positively related to English literacy (Prinz et al., 1996; Strong & Prinz, 1997)? In general, literacy development (i.e., reading with comprehension) consists of skill acquisition in two areas. The first area involves the recognition of letters, spelling patterns, and words (i.e., the grammatical

level), whereas the second area involves real-world knowledge. Thus, one explanation for the higher levels of academic achievement of (a) children of deaf parents over children of hearing parents and (b) students proficient in ASL could be that the successful early language acquisition (i.e., mastery of the conversational form and development of inner speech) results in an accumulation of real-world knowledge that contributes to their English literacy achievement. Although Mayer and Wells posit that ASL alone will not result in a bridge between inner "sign" and written English for deaf children, perhaps mastery of the conversational form of ASL, and its subsequent internalization, can serve as the foundation upon which a bridge can be built.

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- 19

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American Sign Language as a pathway to linguistic competence

[Exceptional Children](#) , [Spring, 1998](#) by [Erik Drasgow](#)

IMPLICATIONS FOR PRACTICE

My final purpose in this article is to describe some potential ways in which ASL can be exploited for intentionally and systematically developing English literacy skills (i.e., specifying the nature of the "bridge") in those children for whom ASL is the best language option. With this in mind, I propose the following recommendations (see also Mahshie, 1995):

1. Children first need to master the conversational form of ASL and then to internalize it. To facilitate this, the children should (a) be exposed to competent speakers of ASL, (b) acquire ASL from a variety of normal and natural experiences rich in opportunities for linguistic and socially useful interaction, (c) be active participants in communicative interactions occurring in natural settings, including those outside the classroom, and (d) have the function and content of their early communicative attempts respected, rather than have a focus on grammatical corrections.
2. ASL should be the language of instruction, at least initially, because children have mastered its conversational form, and thus they do not have to struggle with structure to access content.
3. ASL can then be used to develop emerging literacy skills. Activities to enhance this development include relating fingerspelling to English letter recognition, drawing and using pictures to represent signs and their corresponding written words, and frequent use of interactive ASL story books.
4. Deaf children would benefit from systematic instruction to learn the structure of ASL just as hearing children benefit from instruction to learn the structure of English. Deaf children would learn the phonology, morphology, and syntax of ASL. (See previous sections of this article for descriptions of these systems.) This instruction would familiarize these children with the grammatical aspects of their conversational language. One section of the bridge from ASL to English literacy could then be, for example, relating the phonology of ASL to the phonology of English to facilitate learning of the grammatical structure of English. Other sections could include relating the morphology and syntax (and perhaps even pragmatics) of ASL to similar domains of English. Formal instruction in the structure of ASL would allow students to understand similarities between ASL and English at specific grammatical levels of structure, rather than expecting an "intuitive" understanding of the structure of English because they have fluency in the conversational form of ASL.
5. Beginning reading instruction in English would rely heavily on an interactive approach (e.g.,

Reference Publications

Topic: RSS Feed

American Sign Language as a pathway to linguistic competence

Exceptional Children , Spring, 1998 by Erik Drasgow

* Determine the amount of time and quality of exposure necessary for a deaf child to become fluent in ASL.

* Examine the relationship between real-world knowledge and literacy levels in deaf students fluent in ASL.

* Assess exactly which, if any, ASL linguistic skills transfer to English literacy at the grammatical level.

* Develop a curriculum to teach deaf students about the structure of ASL after they have acquired its conversational form.

* Create a structured curriculum for teaching English to deaf students that is based on solid second language acquisition principles.

When this and other research occurs we can proceed wisely by building the bridge piece by piece, on solid footing, with beneficial and predictable outcomes. If we proceed otherwise, by taking off with a "leap of faith" and implementing procedures prior to evaluating their effectiveness, then we might not land where we had hoped.

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- [1](#)
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- [8](#)
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- [14](#)
- [15](#)
- [16](#)
- [...](#)
- [19](#)

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Using Sign Language and Fingerspelling to Facilitate Early Literacy



Article by Marilyn Edmunds and Debra Krupinski

The use of sign language and fingerspelling offers a "hands on" beginning to literacy! Early childhood educators are embracing the challenge of providing the fundamental skills necessary for successful reading. Research has heightened awareness of the developmental continuum of skills necessary to produce good readers. Backed by this

research, most reading readiness programs incorporate the basic components of oral language development, phonemic awareness and print knowledge. Many teachers are discovering that sign language and fingerspelling are fun and productive ways to actively engage young children in the process.

What Are Sign Language and Fingerspelling?

Sign language and fingerspelling are terms that are typically associated with the Deaf. Sign language is the use of a hand shape, movement and placement to represent a word or concept. Fingerspelling is the use of hand positions to represent letters of the alphabet.

Why Are They Effective Tools in Teaching Reading?

They benefit children.

There is growing interest in the use of sign language with normal hearing children. Howard Gardner's research on [multiple intelligences](#) has helped teachers identify the myriad of learning styles present in any classroom! The teacher will find that the use of signs and fingerspelling will accommodate a wide range of learning styles. A "verbal linguistic" child loves the process of learning another language. The "kinesthetic" child is motivated naturally by movement. The "interpersonal" child loves being involved in a group activity. The benefit of using this system is the representation of information through seeing, hearing, and movement. The more pathways created

in the brain, the stronger the memory. Not only that, teachers are observing that children are interested in sign language and tend to acquire it easily.

They integrate easily into most reading programs.

Sign language and fingerspelling deliver additional clues for learning to read. Reading is an acquired skill that requires a planned sequence of skill development. A variety of reading programs, based on excellent research models, lays the foundation in the early childhood years. The use of sign language and fingerspelling is a strategy that can be integrated into almost any existing reading program.

What Key Elements Are Addressed?

Sign language supports oral language development.

A child's level of oral language competency reveals information about his ability to comprehend the meaning of the spoken or printed word. Children with weak oral language skills struggle with the reading process. The young child who has fewer opportunities for oral language development, for example an English Language Learner, benefits from the visual images sign language provides. Sign language is often iconic. The sign draws a picture in the air illustrating the meaning of a word. For example, signs for prepositional concepts such as "above," "through," and "between" and adjectives such as "fat," "heavy," and "tired" provide strong visual clues to their contextual meanings. Concepts are often acquired quickly when paired with iconic signs.

Furthermore, sign language supports oral language development through repetitions of words or concepts using multiple modalities. When a teacher says and signs a words, the child hears and sees the word. The child is actually receiving two repetitions of the word through two modalities. When a child says and signs a word, he is imprinting the word or concept through auditory and kinesthetic means. Multi-modality repetitions strengthen a child's recall and enhance the development of oral language for reading comprehension.

Fingerspelling supports development of phonemic awareness and print knowledge.

Phonemic awareness is the ability to hear, identify, and manipulate individual sounds in spoken words. Print knowledge involves the ability to recognize and name letters and relate letters to sounds. When combining these two skills, children start the process of sounding out words to build the foundation for spelling. Print knowledge and phonemic awareness are most effective when introduced early. They help children "crack the code" necessary to read well.

Successful readers have strong phonemic awareness skills. They identify, blend, and segment sounds in words in the early years. *Visual Phonics*, while not fingerspelling, is similar in that it borrows hand shapes from fingerspelling to represent long vowel sounds and some consonants.

Other consonant sounds and diphthongs mimic the articulatory movements of speech sounds. These 46 hand shapes are based on sounds, regardless of the spelling of a word. Preschool and kindergarten teachers have reported improved results when using Visual Phonics with non-readers and English Language Learners. First grade teachers have reported the positive results of seeing children apply these skills in their daily reading and writing activities.

Print knowledge begins with the learning of the alphabet. The way they generally learn this is through singing the alphabet song. When fingerspelling is paired with the letter name, many confusing issues are avoided. Who knew that "duh-bul-you" is only one letter? For children who have not acquired all their speech sounds, the motor skill to imitate fingerspelled letter names can be easier than the articulatory movements of speech. Fingerspelling also provides discrete hand shapes for easily confused letter names such as *c* and *z* and clarifies the confusion for the common letter reversal, *b* and *d*. Children naturally enjoy fingerspelling in the air as they encounter printed words in their environment.

Conclusion

The use of sign language and fingerspelling is one of the many strategies that can be used to engage the young reader in developing early literacy skills. It is successful with learners of all types and levels. Patrice Wolf, author of *Brain Matters*, states, "The most powerful strategies increase retention, understanding and students' abilities to apply the concepts they are learning." The use of sign language and fingerspelling puts reading "in the hands" of children.

Additional Resources

[The S.E.E. Center for the Advancement of Deaf Children](#)

[PBS KIDS: Arthur's Communication Adventure](#)

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About the Authors

Marilyn Edmunds and Debra Krupinski work together at Taft Regionalized Deaf and Hard of Hearing Program in Southern California. Marilyn has worked in the field of Deaf Education and Speech Pathology for thirty years. She has worked with multiple grade levels, both hearing and deaf students, and is currently an early childhood teacher, parent educator and inclusion specialist. She has been a state trainer for the SKI*HI Family Centered Home Based Program for Deaf Children.

Debra is a Speech and Language Pathologist. She has worked for twenty-three years with deaf and hearing children. Marilyn and Debra are involved with a non-profit agency, the S.E.E. Center for the Advancement of Deaf Children, which provides information and support services for families and teachers. Debra is a sign language instructor for the S.E.E. Center. Along with a team of teachers, she teaches Signing Exact English skillshops across the United States.

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ASL and Deaf Community

Over 500,000 Deaf individuals in the United States claim American Sign Language (ASL) as their primary language. In fact, ASL is the third most widely used language in the United States. ASL is at the core of a rich and diverse Deaf culture that encompasses art, drama, educational institutions, religious organizations, sports, clubs, and community gatherings of every kind. The Deaf community is comprised of people who are deaf ASL users and their family members.

ASL is a comprehensive and distinct language in which manual gestures, facial expressions, and body position are used to convey meaning. Contrary to popular understanding, it is not a form of manually coded English. Research has concluded that ASL has its own syntax and grammatical structure and constitutes a true language in the scholarly sense. As a result, ASL has become a popular course at many schools and colleges that offer ASL for foreign language credit.

The capitalized form of "Deaf" is used to designate all that belongs to the culture that has evolved around deaf people and ASL. People who may be defined as clinically deaf (unable to hear spoken language) may or may not be members of the Deaf community. In most cases, a person who embraces ASL as their primary language will be considered a member of the Deaf community.

For more information on ASL visit:

- [Training to use ASL](#), both casual and serious
- [Deaf Culture](#)
- [Sign Languages Around the World](#)

History

ASL, as a distinct language, began in 1817, when two educators, Laurent Clerc and Thomas H. Gallaudet, established the first School for the Deaf in the United States and introduced French Sign Language to this country. The language used in the school gradually evolved into a completely separate language, unique to this country. As students graduated from this first deaf school, they passed on the new language to others throughout the US and Canada. Deaf people continue to transmit ASL from one generation to another in the residential schools established for the deaf. Likewise, the language is passed from parents to children and among family members and friends.

Ironically, as Deaf people obtained an increasingly comprehensive language, many in the speaking world discouraged its use. Well-meaning educators believed that the only way for a deaf person to fit into the hearing world was to learn to speak and speech-read English. They feared that allowing children to sign would interfere with their motivation and ability to learn speech. American Sign Language was prohibited in the classroom. Even so, ASL thrived on playgrounds, in dormitories, and in communities. By the 1980's, most educational programs realized the benefit of early language development and now many encourage toddlers and their parents to use sign language.

Claiming ASL as their banner, a strong and positive identity has developed among Deaf citizens. The Deaf President Now protests at

Gallaudet University in 1988, united the nationwide Deaf community around the student's demand for respect and the right to govern their own lives. (See the accompanying sidebar.)

Running head: SIGNING AND LANGUAGE DEVELOPMENT

Using Sign Language with Hearing Children as a Tool to Facilitate Language and Vocabulary

Development in Preschool and School-Aged Populations

Lindsay C. Forhan

University of Denver

Using Sign Language with Hearing Children as a Tool to Facilitate Language and Vocabulary
Development in Preschool and School-Aged Populations

Overview of Intervention

Sign language was developed for use with deaf populations, and encompasses a variety of forms including American Sign Language (ASL), Signed English, and fingerspelling, which uses handshapes to represent letters of the alphabet. Sign language has been used as an educational tool for a variety of populations, including with typically-developing hearing students. Studies suggest that sign language interventions can lead to increases in receptive vocabulary and some improved reading skills (Daniels, 1994; Felzer, 1998; Heller, Manning, Pavur, & Wagner, 1998; Bruce, Snodgrass, & Salzman, 1999). Programs of this type vary widely, and current research is limited. Broad, non-specific programs include concurrent speaking and signing by a teacher, use of signs to give classroom directions, gradual inclusion of signs into curriculum through the school year, and/or separate instruction in sign language by a trained specialist (Daniels 1996, 2003, 2004; Felzer). More specific programs may include fingerspelling as a connection to phonemic awareness or letter recognition and memory (Daniels; Bruce et al.).

These programs have different components, and so the necessary skills and requirements for implementing an intervention vary. At the most broad, educators or interventionists may learn a handful of signs to use in expressing words for objects in the classroom. This knowledge may be expanded over time when working with students. However, greater successes in increasing student sight vocabulary have been linked to a high level of teacher knowledge of sign (Daniels, 1997). A more rigorous intervention may include specific classes for the teacher in the speaking and use of ASL, or may include the use of a part-time teacher fluent in ASL. Some

programs use fingerspelling as a component of a wider reading program, such as Project Read. These programs require specific training and materials (Bruce et al., 1999).

Signing is often used with younger prekindergarten and kindergarten students whose literacy and vocabulary skills are just emerging, though some programs suggest that infants benefit from the use of sign (Garcia, 1999). Older students who may have learning disabilities or who are at risk of academic failure may also benefit from programs that include some form of sign language (Bruce et al., 1999). There is some evidence that signing programs benefit special populations such as children with autism or Down Syndrome, but these programs often focus on using sign as a basic communication tool and not on the connection to receptive vocabulary or literacy (Seal & Bonvillian, 1997; Ronski & Sevcik, 1997; Goldstein, 2002).

Theoretical Basis

Researchers have suggested theories as to why sign language may improve vocabulary skills in hearing children. Daniels (1994) based her work on Piaget's premise that gesture and mime are natural social languages of childhood. She wrote that for children, sign may provide a more natural experience than English for language acquisition. In addition, Daniels theorized that children benefit from using multiple sources to acquire new information. For example, signs represent language both visually and kinesthetically, and the combination of signals may create a stronger imprint on the learner's memory than either alone. Sign language may be stored in a different memory bank than spoken English, creating two independent sources for vocabulary recall. Other work by Daniels (1996) suggested that the active participation required by sign may lead to stronger memory for language. Finally, visual communication may build stronger connections between participants, leading to increased focus on teachers and fellow students.

Additional theories suggest that the iconic nature of sign language may lead to stronger connections between words and meanings. Because signs often suggest the actual nature of the object or act, they can be used as a bridge between the physical experience of the word and the abstract picture created by letters on a page. A more specific technique may be the use of fingerspelling to develop the idea of phonemic awareness and print knowledge. Fingerspelling may facilitate the recognition that words are composed of letters, and that letters are associated with the sounds in words. For children who do not yet have the fine-motor skills necessary to manipulate a pencil with ease, fingerspelling may also be a convenient way to develop understanding of letter sounds (Felzer 1998; Daniels 1996).

History and Current Research

Basic research in this area was established in the 1980s. Ellison (1982) found that sign was positively associated with expressive language development in pre-k children. DeViveiros and McLaughlin (1982) provided some evidence that the use of sign enhanced hearing kindergarteners' use of descriptive adverbs and adjectives. Wilson and Hoyer (1985) found that classroom use of sign to reinforce sight vocabulary with first and second grade students produced a greater retention of vocabulary words over time. Some research has shown that hearing children of deaf parents who grow up bilingual in both ASL and English show early language acquisition and accelerated language development (Griffith, 1985; Daniels, 1993).

Unfortunately, recent research in this area is scarce. Marilyn Daniels has provided the bulk of the work over the last 15 years in this field. Daniels' research focuses on the connection between ASL use in classrooms and subsequent gains in receptive vocabulary. Daniels' initial study (1994) demonstrated that prekindergarten, African-American children in a public school in Maryland were able to significantly raise their scores on measures of sight vocabulary relative to

a control group after one year of signing intervention in the classroom. This specific intervention consisted of simultaneous exposure to both ASL and English for one academic year. A follow-up study showed that these gains were maintained in the target population until the end of kindergarten, though no sign language intervention had taken place during the students' kindergarten year (Daniels, 1996).

Further studies with a similar Maryland population showed that students' scores increased relative to the ASL experience level of the teacher. In this study, a teacher who was initially unfamiliar with sign language was exposed to ASL language classes. Two new prekindergarten classes per year, over three years, were assessed pre-test to post-test on measures of sight vocabulary. The teacher continued to study sign and incorporate her growing knowledge of ASL into the classroom over the three years. Scores of each new class increased pre-test to post-test, with the highest gains coming in the third year of the program (Daniels, 1997). In a separate study, Daniels implemented once-per-week instruction by a Deaf ASL specialist in a kindergarten classroom. After a year of instruction, she found that most typical English speaking kindergarten students were able to use ASL for communication during the course of a school year. The school's internal academic evaluation also showed gains for the treatment population in sight vocabulary relative to the campus cohort (Daniels, 2003). Finally, Daniels wrote that students in a rural area who were exposed to a gradually increasing amount of ASL in the classroom, along with fingerspelling to develop phonemic awareness, showed a significant increase in receptive vocabulary. In addition, students in the control group displayed significantly higher scores than a control classroom on the Reading Recovery program's Word Test and Letter Identification test (Daniels, 2004).

Other researchers have found similar gains. In Heller et al. (1998) sign language was integrated in a naturalistic way into the classroom curriculum of a private preschool. Using the same measures as Daniels, the authors found significant gains in receptive English vocabulary for the treatment group relative to the control group. Laura Felzer (1998) used sign as part of a multisensory reading program. She implemented this program in East Los Angeles, in a primarily Hispanic, Spanish-speaking kindergarten classroom. Prior to the program, no student could recognize letters, phonemic sounds, or sight words. After one year of the intervention, 21 of 25 students were reading at a first grade level, and almost one-third of students were reading at a grade level of 1.5 or above. Bruce et al. (1999) found that the melding of two reading programs, Guided Reading and Project Read, was successful in increasing scores on measures of literacy achievement. The authors noted that the fingerspelling component of Project Read seemed especially useful for children at risk for academic failure, but as this was only one program component, the specific contribution of signing was unclear.

Continuing Questions and Criticism

Overall, recent research does seem to support the idea that the use of sign language in the classroom curriculum may improve students' vocabulary. However, many questions still remain as to the efficacy of these treatments. Work needs to be done in considering how long the benefits reported in the studies continue through a child's education. In addition, more research should be done to show whether benefits of signing extend beyond receptive vocabulary and other reading skills into other improvements in school performance. Finally, it should be explored whether programs incorporating ASL and other signing techniques have a greater impact on children's academic performance than other training programs currently in use with schools (Bonvillian, 2002). Research in using ASL with hearing populations has been done with

normally developing prekindergarten and kindergarten students, in private and public school domains, and in some instances across white, African-American, and Hispanic populations. Studies were also conducted in both urban and rural areas. The age range is limited, and it is not proved whether classroom signing can increase vocabulary and reading skills in children with learning disabilities throughout the elementary school years.

Despite these questions, there are many current programs that focus on or incorporate sign language tools towards the goal of increasing vocabulary and literacy skills in school-age hearing children. Many educators and educational professionals advocate the use of signing and/or fingerspelling in the classroom, and a variety of methods are available. Many studies include positive anecdotal evidence of language and vocabulary gains in populations targeted by a signing intervention, suggesting that this field should be explored in further detail. Further research must be done, but based on current work, there are some positive gains associated with using sign language in early school classrooms.

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Sense of Coherence: A Relevant Resource in the Coping Process of Mothers of Deaf and Hard-of-Hearing Children?

Manfred Hintermair

University of Education, Heidelberg, Germany

This study examined the importance of reported sense of coherence (Antonovsky, 1987) in mothers of children with hearing impairment. Sense of coherence was explored as a factor in relation to the experience of stress and subjective life satisfaction and in the context of other relevant variables in coping (e.g., social support, additional handicaps of the child, child's hearing status, means of communication). Two hundred thirty-five mothers completed a questionnaire, and path analysis corroborated a theoretical model in which sense of coherence was delineated as a factor contributing directly to stress perception. Both sense of coherence and the experience of social support were identified as resources that reduced reported stress and improved quality of life, with sense of coherence especially important in reducing stress. Child variables, including additional handicaps and extent of hearing impairment, intensified reported stress for the mothers, but mode of communication with the deaf child did not affect stress experience. The findings are discussed within the context of socialization theory. Recommendations for further research (e.g., longitudinal data, control designs, socio-economic status, applicability to fathers) are made.

In recent years the concept of *sense of coherence* (SOC) (Antonovsky, 1987) has received increased attention in social and medical science. Its rising importance is closely connected to changing conceptions of health. This has moved from a pathogenic view to one that includes a broader notion of relative well-being, or *salutogenesis*. The change can be described as follows:

Thinking pathogenically means examining the origin and the treatment of disease. Salutogenesis

I would like to thank Trixi Bucker for help with the English translation. Correspondence should be sent to Manfred Hintermair, University of Education, Heidelberg, Zeppelinstrasse 3, D-69121, Heidelberg, Germany (e-mail: hintermair@ph-heidelberg.de).

does not refer to the opposite in the sense that it is devoted to the origin and maintenance of health as an absolute state. Rather, it refers to the fact that people are to be considered more or less healthy while at the same time being more or less ill. Thus the question here is: How does a person become healthier and less ill? (Bengel et al., 1998, S. 24; tr. Debbie Johnson).

Research should therefore try to establish the factors that contribute to the optimization of health while keeping in mind that optimal health is not always achieved during life. Within this salutogenic perspective, the concept of *sense of coherence* has a central role, since it is a psychological factor that varies among individuals and is implicated in establishing a health-driven rather than a pathology-driven outlook. According to Antonovsky, SOC especially influences the ability to deal with stressful life experiences (Antonovsky, 1987; Antonovsky & Sourani, 1988). This makes Antonovsky's approach especially useful in considering the outlook and strategies of deaf and hard-of-hearing children and their families.

According to Antonovsky, sense of coherence means "a global orientation that expresses the extent to which one has a pervasive, enduring though dynamic feeling of confidence that (1) the stimuli, deriving from ones internal and external environments in the course of living are structured, predictable and explicable; (2) the resources are available to one to meet the demands posed by these stimuli; and (3) these demands are

challenges, worthy of investment and engagement” (Antonovsky, 1987, p. 19). Sense of coherence thus is both a basic feeling and a certain view of the world that assumes that we have sufficient understanding of the things happening around us and that we are able to influence these events through the recruitment of internal and external resources.

Sense of coherence is made up of three components: First, it encompasses a *sense of comprehensibility*. People who have this sense of comprehensibility feel that they can approach all experiences, including novel ones, as potentially understandable. They feel less exposed to situations that are chaotic, arbitrary, inexplicable, or difficult to understand. Such people are therefore able to see any arising problems or stress factors within a broader context. Secondly, people who experience a *sense of manageability* are convinced that the problems they encounter in life can be solved. They feel competent in their ability to manage available resources, or to acquire them, in order to deal with even the most difficult of demands. These resources do not necessarily have to be their own. However, they have confidence that problems can be solved with the help of other people or of higher forces if necessary. Thirdly, Antonovsky emphasizes a *sense of meaningfulness* as the most important component. This mostly concerns how far someone feels his or her life to be emotionally meaningful and has aims that are worth striving for.

These three components of sense of coherence are not always individually detectable through factor analysis with the SOC questionnaire developed by Antonovsky. However, in principle, the questionnaire items can be considered to reflect these components to a different degree. It should also be mentioned that there is considerable overlap of these ideas with similar concepts (dispositional optimism: Scheier & Carver, 1987; hardiness: Kobasa, 1982; locus of control: Rotter, 1966; self-efficacy: Bandura, 1977). Also, there are high correlations of SOC with anxiety, neuroticism, and depression. This has led some authors to deny the status of SOC as an independent construct (Geyer, 2000; Schmidt-Rathjens, Benz, van Damme, Feldt, & Amelang, 1997). Mlonzi and Strümpfer (1998) arrive at a more nuanced conclusion. They analyzed the correlation of sense of coherence with the secondary factors of the 16PF questionnaire after Cattell. They

found a significant correlation with the factor “anxiety” ($r = -.52$) in this study, but an equally significant connection with four secondary factors. They conclude, therefore, that Antonovsky’s SOC is a highly complex personality disposition that cannot be explained solely through its high negative correlation with “anxiety.” Current research is not sufficiently advanced to allow more definitive conclusions concerning this (Bengel, Strittmatter, & Willmann, 1998, p. 44).

Concerning the coping process of mothers with deaf and hard-of-hearing children, an important question is *what role does sense of coherence play in dealing with stress situations?* Its main function is usually seen to be that it heightens flexibility in the face of new demands, by activating the appropriate resources according to the situation. SOC may “work as a flexible directing principle, as a conductor who orchestrates the implementation of different coping styles according to the demands to be met” (Bengel et al., 1998, p. 30). In his argument concerning functionality of sense of coherence, Antonovsky closely follows Lazarus (1991), whose stress theory differentiates between an appraising process (primary appraisal, secondary appraisal, reappraisal) and the coping process itself. In the context of hearing impairment, the following deduction concerning the quality of the coping process may be made: A parent with a strong SOC feels confident in his or her ability to make an internal assessment of the situation and then to choose and pursue an appropriate strategy for coping with the stressor (in this case, the situation brought about by diagnosis). This does not mean that suffering and sorrow are somehow spirited away, but rather that they can be integrated into the parent’s life. However, as many authors following Antonovsky have pointed out, SOC is not really a special coping style but rather has a higher functionality by helping to take the measures appropriate to the specific situation and specific individual.

The evolution of sense of coherence, according to Antonovsky (1987), takes place in the course of childhood and adolescence. Experience gained during this phase is particularly relevant for the development of sense of coherence. If there are many internal and external resources available during this time—Antonovsky talks of “generalized resistance resources,”

including individual factors (e.g., physical factors, intelligence, etc.) but especially social and cultural factors such as social support, financial options, and cultural stability—there is a good chance that a strong sense of coherence will develop. Antonovsky sees even larger opportunities of change in adolescence because of the many reorientation processes natural to this phase. At about the age of 30, however, sense of coherence in his opinion is relatively firmly formed and thereafter remains largely stable.

Although according to Antonovsky's theory a person's sense of coherence is more or less completed in adulthood, the validity of the stability hypothesis is under discussion: Many researchers hold conflicting opinions, and the available statistical studies arrive at different conclusions (Sack, Künsebeck, & Lamprecht, 1997; Sack & Lamprecht, 1994; Sandell, 1997). If we see the theoretical discussion concerning consistency of SOC in the light of more recent approaches in identity research (see Keupp et al., 1999), it may be better viewed not as a fixed asset once gained, but as something to be recreated over and over in the course of life. The need to recreate also implies the ability to recreate.

The aim of the study presented here is to describe and clarify the relevance of sense of coherence as a personal resource in the coping process of mothers of deaf and hard-of-hearing children.

Since Antonovsky assigns to sense of coherence something like a control function in stress management, we must examine whether that is the case and, if so, its relative importance in relation to other factors relevant to coping. There are now several empirical studies describing relevant factors in the coping process of mothers of handicapped children. The recent meta-analyses of Scorgie, Wilgosh, and McDonald (1998) and Yau and Li-Tsang (1999) have extracted the essential variables that help or hinder coping for families with handicapped children (see also Li-Tsang, Yau, & Yuen, 2001; Wilgosh, Scorgie, & Fleming, 2000). Even though coming to terms with a child's handicap is always a highly individualized process, with various factors coming into play in varying intensity (Yau & Li Tsang, 1999, p. 41), certain aspects appear to be universal. Other than socio-economic status and education level, these include *personal resources* (e.g., problem-solving abilities, self-efficacy, locus of control, optimistic view of life, etc.), *social*

resources (e.g., support from partner, family members, relatives, friends, acquaintances, experts, self-help groups, etc.), and *child variables* (e.g., extent of handicap, age, sex, additional handicap, temperament, etc.). All of these affect the level of stress reported by parents and the degree of life satisfaction and quality they feel they can achieve. There are also a number of studies within the specific field of coping research in families with deaf and hard-of-hearing children that arrive at similar conclusions (e.g., Backenroth, 1984; Calderon & Greenberg, 1999; Lederberg & Golbach, 2002; Morgan-Redshaw, Wilgosh, & Bibby, 1990; Pipp-Siegel, Sedey, & Yoshinaga-Itano, 2002).

The role of SOC as a personal resource in the coping process of parents of deaf and hard-of-hearing children has not been previously researched.

Theoretical Model

We have developed a theoretical model formulated as a path diagram, which was tested empirically in the present study (see Figure 1). The model links some of the personal, social, and child-related variables that have proved especially significant, both theoretically and empirically, in previous studies on the stress situation of mothers of deaf and hard-of-hearing children. In addition, the model includes a communication mode factor. This last aspect is especially relevant for the situation of the education of the deaf and hard-of-hearing children in Germany, which is still dominated by methodological debate on the issue of sign versus oralism.

Sense of coherence (as a personal resource) and experienced social support (as a social resource) are considered relevant factors influencing stress processing and (re-) achievement of life satisfaction (Calderon & Greenberg, 1999; Hintermair, Lehmann-Tremmel, & Meiser, 2000; Meadow-Orlans, 1994; Quittner, Glueckauf, & Jackson, 1990). In addition, an additional handicap of a deaf or hard-of-hearing child (Beyzavi, 1993; Hintermair, 2000; Hintermair et al., 2000; Meadow-Orlans et al., 1997; Pipp-Siegel et al., 2002) as well as the child's hearing status (Calderon & Greenberg, 1999; Frey, Greenberg, & Fewell, 1989; Henggeler, Watson, Whelan, & Malone, 1990; Hintermair & Horsch, 1998; Hintermair et al., 2000) are treated as stress-intensifying factors. With regard to

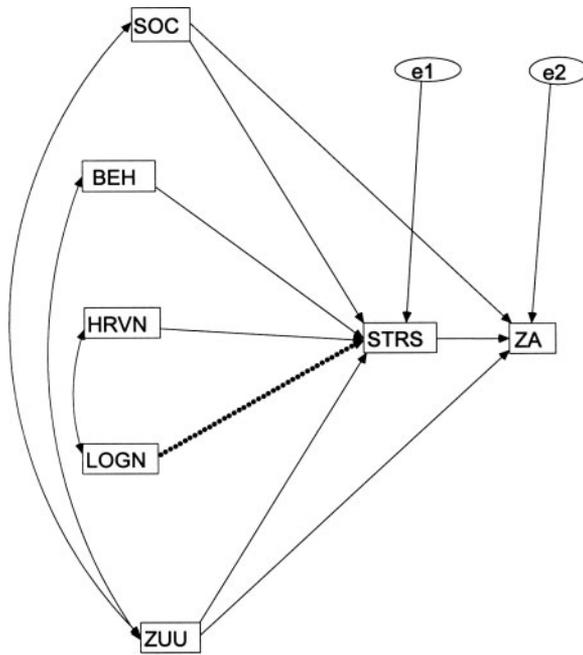


Figure 1 Theoretical Model for a Path Analysis of the Coping Process of Mothers of Deaf and Hard-of-Hearing Children (SOC = sense of coherence; STRS = parental stress; ZA = overall life satisfaction; ZUU = social support; BEH = additional handicap; HRVN = hearing status of the child; LOGN = parents' use of signs).

the means of communication used, we adopt the majority opinion in psychological literature that the decisive factor for a deaf or hard-of-hearing child's successful psycho-social development is an adequate, working, and child-centered use of a language communication system, regardless of modality (Greenberg, Kusché, & Speltz, 1991). We assume therefore that the communication modality does not affect the mothers' stress experience (indicated by a dotted line).

Since many of these factors have been shown to intercorrelate, additional covariances were integrated in the theoretical model. These included (*inter alia*) the relationship between social support and personal resources (Flannery & Flannery, 1994; Vuori, 1994) and the connection between additional handicap and social support (Hintermair et al., 2000; Meadow-Orlans, Mertens, Sass-Lehrer, & Scott-Olson, 1997).

Socialization Theory

The following section indicates why the variables in the theoretical model are of particular importance

in considering mothers of deaf and hard-of-hearing children.

The role of mothers in the parenting process. While the moral discourse concerning male and female roles in parenting has shifted to a position where roles are shared more equitably, in most Western societies social realities tell another story. Mothers, not fathers, still spend much more time on caregiving and parenting. In all probability, this is no different for families with children with hearing impairment. It may even be exaggerated, in view of the perception of "special education" for such children. In a German study on the situation of families with handicapped children, Engelbert (1999) was able to show clearly that it is still the mothers who are responsible for parenting, care, and stimulation. Parental task sharing seems to be especially difficult when a child is handicapped (see also Bristol & Gallagher, 1986; Li-Tsang et al. 2001, S. 68). Engelbert (*loc. cit.*, p. 289f) holds the opinion that intensified stress due to the handicap of a child may lead to the re-traditionalization of family roles, favoring long-familiar role patterns. Mothers of handicapped children are thus especially challenged in their parenting tasks, and the question of resources is particularly vital.

The role of the child in modern times. During the last 80 years, the meaning of children to their parents in western societies, and consequently the status of children, has changed drastically (for an overview of the situation in Germany, see for example Beck-Gernsheim, 1998, chapter 5). While in earlier times the rationale for child bearing and child rearing was largely economic, today parents hope to satisfy emotional needs through their children. Because of this, parents have been increasingly held responsible by society for raising children successfully, especially in the early years. They can no longer lightly afford to make mistakes which may have irreversible consequences for their child's chances in life. Parenting seems possible only if one acquires enough information and has sufficient commitment. Parents with (hearing-) impaired children thus are confronted with a highly challenging situation: They are usually caught in the net of parenting advice and rules of behavior that is hard to escape without risking reproach. Since mothers

generally face the task of parenting to a greater extent than do fathers, they not only carry the major burden of care, but can also carry a high responsibility for the quality of parenting for their (deaf and hard-of-hearing) child.

Early development of attachment with children. Important insights into the success of parenting efforts have been reported from the findings of attachment research (see Ainsworth, Blehar, Waters, & Wall, 1978; Main, 1995). According to these, attachment qualities are very important for child development, and the sensitivity of the child's attachment figures has a pivotal role here. The child's development is especially endangered when a (hearing) impairment is diagnosed and the child may be sent signals that may be interpreted incorrectly, and which may require expert knowledge and intervention. Again, the mother will feel a challenge to her responsibility for her (handicapped) child. She must now explore this ambivalent network of fears, hopes, and wishes in the context of her changed life perspective. And, not least, she will always be confronted with the expectations of various social authorities that she spend a great deal of time and energy on raising her handicapped child.

The stress experience of mothers of (hearing-) impaired children and their subjective life satisfaction thus seem especially at risk. Under these conditions, we ask whether sense of coherence might assume a particular stress managing function, as postulated in Antonovsky's theory (1987).

Method

Participants

The study presented here was carried out by questionnaire survey from October to December 2000. Ten schools for deaf and hard-of-hearing children in North Rhine-Westphalia, the most densely populated German state, were included.

The parents were contacted through the schools, which forwarded the questionnaires to all families with children up to middle school level. The children's ages, accordingly, were between 1 and 13 years ($M = 8.13$; $s = 3.1$). The parents had a choice of either sending in the filled-in questionnaire directly or handing it back to

the school in a sealed envelope, with the school passing on the questionnaires to the university in bulk. Three hundred thirty of 1395 questionnaires originally issued (23.7%) were suitable for the final evaluation. Forty-seven parents were excluded from this analysis because of missing data for various demographic characteristics. The empirical analysis thus used 283 questionnaires (mothers: $N = 235$; fathers: $N = 48$). Only the mothers' sample is dealt with here.

The sample's representative character was checked by comparing the educational status of the responding group with the distribution of educational status in the overall population of Germany. For comparison, we used data from the Statistisches Bundesamt (Federal Statistical Office) on the distribution of population and gainful employment in Germany as of April 1998 (Statistisches Bundesamt, 1998) and correlated the data listed there with the school-leaving qualifications of the mothers in our sample. The comparison showed statistically relevant differences ($\chi^2 = 21.26$; $df = 2$, $p \leq .000$). Mothers with low school-leaving qualifications were underrepresented in the sample, while the group of mothers with high school-leaving qualifications was overrepresented compared to the distribution in the overall German population.

Statistical Verification of the Theoretical Model

The theoretical model (see Figure 1) was tested empirically by means of path analysis. Path analysis allows a statistical determination of the relative importance of various variables within a theoretically founded model. The path analysis was calculated with LISREL 8.50 software. For analysis, the respective parametrical conditions of relevant variables were calculated by way of the additional program PRELIS 2.50, which generated input masks that allow optimum calculation.

Instruments and Measures

Sense of Coherence questionnaire (SOC/Short Form). We used the short form of Antonovsky's SOC questionnaire in a version authorized for Germany. The thirteen questionnaire items of the short form are supposed to cover basic attitude towards life in terms of dispositional orientation. Thirteen items were used, with a 7-point

rating scale. Sample items include: Do you feel rather indifferent about what goes on around you, at times? How often do you feel the things you do are meaningless? Do you sometimes feel you are in an unfamiliar situation and you do not know what to do? Have you ever felt unlucky? How often do you have feelings that make you fear you are losing control?

In order to test the content structure of the coherence concept, we carried out a factor analysis (main components analysis) with subsequent varimax rotation. The resulting two-factor solution accounted for 45.4% of overall variance. The load pattern indicated a general factor, F1, accounting for just under 30% of the variance. Items of all three components load on this factor. The items for comprehensibility and meaningfulness in particular meet in this factor almost exclusively and with partly very high values. Three items load on the second factor F2, which accounts for roughly 15% of overall variance. This factor is uneven and cannot be clearly interpreted since it contains items from two components. The factor analysis result thus suggests that further analyses should use the overall scale values rather than individual component scores. This is in accordance with the results of many other studies (e.g. Broda, Bürger, & Dinger-Broda, 1995, p. 117; Dana, Hoffman, Armstrong, & Wilson, 1985; Frenz, Carey, & Jorgensen, 1993; Hawley, Wolfe, & Cathey, 1992; Holm, Ehde, Lamberty, Dix, & Thompson, 1988; Sack et al., 1997), which also suggest that the overall value of the SOC questionnaire is more reliable and valid than subscale scores.

The available studies regarding the questionnaire's reliability show very satisfactory values for internal consistency (Cronbach's alpha of .82 and higher) and test-retest reliability with time intervals of 7 to 30 days ($r = .92$ and higher). A reliability check of our own sample for internal consistency yielded very satisfactory results as well (Cronbach's alpha = .80).

Stress questionnaire (SOEBEK). Krause and Petermann's (1997) questionnaire on the social orientation of parents of handicapped children includes a 20-item stress scale that (with the exception of 2 items) parents answer by using a 5-step rating scale (from "never true" to "true very often"). The authors point out that, regardless of the multitude of stress factors

covered by the scale, 12 of the 20 items have a special relevance to stress caused by caregiving, therapy, and interaction with the handicapped child. Sample items include the following: I feel that my child's handicap is serious; I feel overtaxed in raising my child; I feel I'm under pressure in raising my child; I think I'm in good health.

The scale's reliability regarding internal consistency shows optimal results for Cronbach's alpha of .83, and reliability values—depending on the method used—between $r = .76$ and .85. The reliability check of our own sample for internal consistency yielded very good values as well (Cronbach's alpha = .84).

Although the SOEBEK stress scale, in contrast to other measures such as the Parenting Stress Index (Abidin, 1995), does not yield differentiated data for different aspects of stress, it is nevertheless a reliable and valid gauge of general subjective stress experience. My own analysis of a (albeit very small) sample of parents of deaf and hard-of-hearing children (Hintermair et al., 2000, p. 62f) showed a highly significant correlation between the SOEBEK stress scale and the Parenting Stress Index Total Domain Score ($r = .91, p \leq .001$). There was also a highly significant correlation between the stress score and both PSI subdomains (Child Characteristics Domain, $r = .84, p \leq .001$; Parenting Characteristics Domain, $r = .83, p \leq .001$). Sarimski (2001) was able to show similar results with a larger sample of 30 parents with a Down's syndrome child. Again, there was a significant correlation of the SOEBEK stress questionnaire and both the PSI Total Domain Score ($r = .87, p < .001$), Child Characteristics Domain ($r = .70, p < .001$) and Parenting Characteristics Domain ($r = .80, p < .001$).

Life satisfaction scale. A measure of psychological well-being was used in order to assess its relation to SOC. In previous studies (Hintermair et al., 2000), mothers responded to two items (I am satisfied with my life as it is right now; I am satisfied with the way I feel right now) using a 5-step rating scale, from "not true at all" to "very true." An internal consistency check showed a Cronbach's alpha value of .81. This reliable measure of overall life satisfaction or subjective well-being provides additional information beyond that of stress experience.

Social support. Experienced social support was measured by responses to a single item (I am satisfied with the support I receive from my social environment [family, relations, parents, friends, acquaintances, etc.]) on a 5-step rating scale. This provides a necessarily approximate assessment of their currently experienced social-support situation (which must, of course, be treated with caution) in relation to SOC.

Demographics. On an additional sheet, mothers gave information about various data concerning themselves and/or their children. In this way we received information about age, sex, additional handicaps, cochlear implants, and hearing status of the children and the mothers, as well as the mothers' educational status and the means of communication used in the family (speech/sign). We also received information about the time interval since diagnosis.

Results

Before presenting the empirical realization of the path model, other relevant findings are summarized:

- Regarding the *strength of sense of coherence*, the mean value of SOC for mothers of deaf and hard-of-hearing children ($M = 63.6$, $s = 12.3$, $N = 235$) was comparable to that of a German random female sample ($M = 64.0$, $s = 12.1$, $N = 766$; Franke, Elsesser, Sitzler, Algermissen, & Kötter, 1998) as well as that of a German representative female sample ($M = 64.3$, $s = 11.5$, $N = 1089$; Schumacher, Gunzelmann, & Brähler, 2000).

- The mean measure of stress ($M = 35.8$, $s = 10.1$, $N = 235$), using the standardization sample of the validation process for the mothers' sample, was generally low (the mean value of 35.8 corresponds to the 15th percentile). This suggests that, overall, successful coping seems to have taken place in this sample with slightly older children ($M = 8.13$, $s = 3.1$; for a discussion of current stress values for mothers of deaf and hard-of-hearing children in different age groups see Lederberg & Golbach, 2002). However, the distribution of scores indicates some high values. High stress values do not appear to be correlated with the age of the child ($F = 1.23$, $df = 1$, $p \leq .27$).

Table 1 Statistical index values of model variables with interval/ordinal scale level

	N	M	s	Median	Skewness	Kurtosis
SOC	235	63.6	12.3	—	-.33	-.46
STRS	235	35.8	10.1	—	.46	-.33
ZA	235	6.9	1.9	7.0	-.29	-.26
ZUU	235	3.3	1.3	3.0	-.24	-1.13

Index: SOC = sense of coherence; STRS = parental stress; ZA = overall life satisfaction; ZUU = social support; BEH = additional handicap (1 = no, 2 = yes); HRVN = hearing status of the child (1 = moderately hard of hearing: <70 dB; 2 = severely hard of hearing: 71–90 dB; 3 = profoundly deaf: >90 dB); LOGN = parents' use of signs (1 = no; 2 = yes).

- One-factor ANOVAs with the demographic information as independent variables and the SOC as dependent variable showed a significant result only for *educational status* ($F = 3.86$, $df = 2$, $p \leq .02$). This is in accordance with the results of several other studies (for an overview, see Geyer, 1997). The Scheffe test established that it is the difference between parents with an elementary education (Grundschule and/or Hauptschule; $M = 62.9$) and parents with secondary education qualifications (Abitur) or a university degree ($M = 67.4$) that was significant (parents with intermediate qualification [Realschule], $M = 64.0$).

The *time elapsed since diagnosis* failed to correlate with SOC. We compared the SOC value for mothers for whom diagnosis was less than a year previously with that of all other parents ($M_{<1 \text{ year}} = 64.5$; $M_{>1 \text{ year}} = 64.3$; $F = .01$, $df = 1$, $p \leq .93$). Even though the available data are not longitudinal, so that we cannot make any statements about individual courses of change and above all about the strength of sense of coherence before diagnosis, we can nevertheless surmise that the parents' sense of coherence does not suffer a setback (at least not a severe or persisting one) through diagnosis (for a differing view, see Margalit, Leyser, & Avraham, 1988). On the contrary, these findings support the view, in accordance with Antonovsky's theoretical position, that the strength of sense of coherence at the time of diagnosis is an important factor helping (or hindering, as the case may be) parents to deal or cope with the child's impairment in an adequate way. This view is also supported by qualitative data collected from the mothers about their (remembered) experience at the time of diagnosis and the present (not reported here) (Hintermair, 2002).

Table 2 Statistical index values of model variables with nominal scale level

	N	1 (N)	2 (N)	3 (N)	Mode
BEH	235	189	46	—	1
HRVN	235	71	78	86	3
LOGN	235	188	47	—	1

Index: SOC = sense of coherence; STRS = parental stress; ZA = overall life satisfaction; ZUU = social support; BEH = additional handicap (1 = no, 2 = yes); HRVN = hearing status of the child (1 = moderately hard of hearing: <70 dB; 2 = severely hard of hearing: 71–90 dB; 3 = profoundly deaf: >90 dB); LOGN = parents' use of signs (1 = no; 2 = yes).

Path Analysis

Tables 1, 2, 3, 4, and 5 show the outcome of measurements, the correlations of the model variables and the structural equations. Figure 2 shows the graphic realization of the path model. Major findings are enumerated below.

1. The theoretical model (Figure 1) is confirmed by the empirical data ($\chi^2 = 1.61$; $df = 3$; $p = .658$). The sample size of $N = 235$ may be considered sufficient for minimizing the risk of erroneous conclusions (Backhaus, Erichson, Plinke, & Weiber, 1996, S. 425).

2. Thirty-eight percent of stress experience variance, and 37 % of overall life satisfaction variance, can be explained by the variables integrated into the model. Path direction is the same as in the theoretical model in all cases, i.e. hypothesized causal connections between the individual variables may be considered as generally statistically safe. It must be recorded, however, that 62% or 63% of the model variance cannot be explained by the variables.

3. Sense of coherence (SOC) performed in a manner congruent with Antonovsky's formulation

with respect to stress processing (STRS). Mothers with a stronger sense of coherence had an advantage in coping with the experience of raising a deaf and hard-of-hearing child over mothers with lower SOC scores (path coefficient of $-.39$). Sense of coherence was of relatively greater importance than that of experienced social support (ZUU, $-.25$), bearing in mind that interpretation of this factor must rest on responses to a single question. Overall, the model confirms that both personal *and* social resources play an important role in coping with an impairment, as suggested by coping theory. Also in line with expectations was the finding that personal resources are more important in coping with a crisis or critical event in life than external resources (Ell, Mantell, Hamovitch, & Nishimoto, 1989; Schröder, 1997, p. 337; Willutzki, 2000, p. 196).

4. Overall life satisfaction (ZA) showed a different, and complementary, pattern to stress processing (STRS). Although sense of coherence (SOC) had both direct (.18) and indirect effects (by way of stress experience, $-.20$) on this factor, experienced social support (ZUU) seemed to be relatively more important here (.38). Findings of other studies support the importance of available social resources for the general subjective well-being of mothers with handicapped children (Hintermair et al., 2000).

5. The extent of the child's hearing loss (HRVN, .17), and especially an additional handicap of the deaf or hard-of-hearing child (BEH, .27) were stress-intensifying factors in the mothers' coping process. Once again, there is empirical support for the higher stress situation of this group.

6. The means of communication used in raising

Table 3 Correlation matrix of model variables (polychoric correlations)

	ZA	STRS	SOC	ZUU	BEH	HRVN
ZA	1.00					
STRS	$-.45^{***}$	1.00				
SOC	$.40^{***}$	$-.46^{***}$	1.00			
ZUU	$.53^{***}$	$-.44^{***}$	$.34^{***}$	1.00		
BEH	$-.16^*$	$.28^{***}$.00	$-.17^*$	1.00	
HRVN	.00	.11	.06	$-.08$	$-.14^*$	1.00
LOGN	$-.08$.12	$-.10$	$-.06$.10	$.49^{***}$

Index: SOC = sense of coherence; STRS = parental stress; ZA = overall life satisfaction; ZUU = social support; BEH = additional handicap (1 = no, 2 = yes); HRVN = hearing status of the child (1 = moderately hard of hearing: <70 dB; 2 = severely hard of hearing: 71–90 dB; 3 = profoundly deaf: >90 dB); LOGN = parents' use of signs (1 = no; 2 = yes).

Table 4 Structural equations ($\chi^2 = 1.61$; $df = 3$; $p = .658$)

ZA =	-.202*STRS	+.177*SOC	+.384*ZUU	Error = .632	R ² = .368
Standard Error					
Error	(.063)	(.060)	(.059)	(.059)	
T Score	-3.20	2.94	6.44	10.70	

Index: SOC = sense of coherence; STRS = parental stress; ZA = overall life satisfaction; ZUU = social support; BEH = additional handicap (1 = no, 2 = yes); HRVN = hearing status of the child (1 = moderately hard of hearing: <70 dB; 2 = severely hard of hearing: 71–90 dB; 3 = profoundly deaf: >90 dB); LOGN = parents' use of signs (1 = no; 2 = yes).

a deaf or hard-of-hearing child (LOGN) had no effect on the mothers' stress experience (–.04). This result is in conformity with our hypothesis and with other studies showing that language modality need have no relevance for predicting stress experience (Pipp-Siegel et al., 2002).

Discussion

A number of variables, tested through questionnaire items, were found to account for a significant part of the variance in reported experience of stress and overall life satisfaction (around 40%). Thus, while the variables examined do not account for most of the variance in these factors, nevertheless their influence is considerable. In particular, we have identified sense of coherence as an important intervening variable that, through its moderating effect on reported stress, appears to play an important role in perceived quality of life for mothers of hearing impaired children.

If we compare the data of this study in terms of the theoretical aspects of role and responsibility attribution in the socialization process in the family that we have outlined (see above), *sense of coherence* (SOC) can be distinguished from a measure of *social support* (ZUU) in relation to the mothers' subjective *stress experience* (STRS) in coping with the child's hearing impairment and the tasks to be dealt with in raising the child. Antonovsky (1987) points out that sense of coherence is especially important in coping with stress situations,

and this link is specifically reaffirmed by our findings. If it is still mothers—especially those of handicapped children—who bear the brunt of work of parenting and caregiving, we must assume that they are particularly exposed to various kinds of stressors. At the same time, sense of coherence can be viewed as a personal approach for tackling necessary tasks in a constructive way. Mothers with a high sense of coherence may be expected to manage experiences with their deaf or hard-of-hearing child more efficiently and therefore relieve strain more readily. (We have been able to document this effect in a separate qualitative study; Hintermair, 2002.)

As well as the importance of sense of coherence and social support, the child's *hearing status* (HRVN) and especially an *additional handicap* (BEH) have a stress-intensifying effect on mothers, as predicted by socialization theory. If the mother is primarily held responsible for the child's development, and herself accepts that responsibility, it is understandable that the mothers' stress experience increases with an increased number of stressors (e.g., a hearing impairment and an additional handicap). In the end it is the mothers, after all, who must somehow cope with this situation. This connection is also supported by the findings of other studies (Pipp-Siegel et al., 2002).

Directed counseling and intervention should firstly concentrate on boosting the resources that mothers need for coping and try to diminish the effect of stress-

Table 5 Structural equations ($\chi^2 = 1.61$; $df = 3$; $p = .658$)

STRS =	-.390*SOC	-.252*ZUU	+.267*BEH	+.172 HRVN	-.043*LOGN	Error = .619	R ² = .381
Standard Error							
	(.056)	(.057)	(.055)	(.062)	(.061)	(.058)	
T Score	-6.90	-4.41	4.87	2.77	-.70	10.70	

Index: SOC = sense of coherence; STRS = parental stress; ZA = overall life satisfaction; ZUU = social support; BEH = additional handicap (1 = no, 2 = yes); HRVN = hearing status of the child (1 = moderately hard of hearing: <70 dB; 2 = severely hard of hearing: 71–90 dB; 3 = profoundly deaf: >90 dB); LOGN = parents' use of signs (1 = no; 2 = yes).

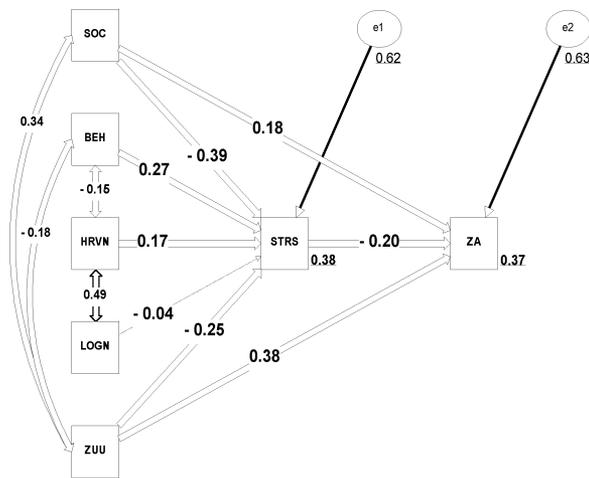


Figure 2 Path Model ($N = 235$; $\chi^2 = 1.61$; $df = 3$; $p = .658$; underlined = variance share; dotted lines = non-significant paths; SOC = sense of coherence; STRS = parental stress; ZA = overall life satisfaction; ZUU = social support; BEH = additional handicap; HRVN = hearing status of the child; LOGN = parents' use of signs).

intensifying factors as far as possible (see Lederberg & Golbach, 2002; Lederberg & Prezbindowski, 2000; Spencer, 2000). For mothers of deaf and hard-of-hearing children, this could mean that, apart from practical help and advice on how to deal with the child, counseling in early intervention could focus especially on boosting or confirming the mother's sense of coherence and see to it that social relationships, which tend to become brittle in the course of diagnosis, become the object of intense networking efforts (Hintermair et al., 2000). Both aspects seem to be of equal importance for mothers in reducing stress and achieving life satisfaction. There should be additional and perhaps more intense counseling and intervention service offers for mothers with severely deaf children or hard-of-hearing children with an additional handicap, since this group of mothers seems to be stressed particularly highly. The results of Greenberg (1983), Meadow-Orlans (1994), and Pipp-Siegel et al. (2002) confirm the success of an early family-centered counseling and support strategy.

The data also suggest (ANOVA) that sense of coherence is related to mothers' educational status. We do not possess data on the correlation of sense of coherence and socio-economical status, even though other results (Kaplan, 1995; Lundberg & Nyström

Peck, 1995) suggest a close connection. Knowing the importance of sense of coherence for coping with impairment, and in view of the correlation to educational and social status that has been described, the aspect of *material resources* and their implications for counseling and support concepts cannot be ignored. If material resources (such as money, housing, food, education, etc.) are not available at the appropriate level, any pedagogic intervention, however well-meant or implemented, is bound to fail. In that case, "coherence support" in early intervention and many other more strongly educational measures become mere farce. As Adorno commented, wrong life cannot be lived rightly.

The study presented here is a first attempt at an empirical evaluation of the importance of the sense of coherence for working with parents of deaf and hard-of-hearing children. There is still much that remains to be done. The emerging consequences for further research include the following:

1. Studies that document the development or change of sense of coherence with time, and its influence on the coping process are required to clarify the extent to which SOC is a mutable trait during parenthood.
2. A further study should also include additional control groups (hearing parents/hearing children, deaf parents/deaf children), in order to assess the importance of sense of coherence within the framework of communication diversity.
3. In the present sample, mothers with higher education are over-represented. It remains to be established, therefore, whether the correlations discussed here are representative of the population at large.
4. Finally, there must be also a thorough and detailed study and analysis of the situation of fathers. Above, all therefore, we must obtain sufficiently large samples of fathers, so that the insights gained from the group of mothers can be compared with those of fathers.

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must deliver/teach Direct Instruction effectively. First, he/she should deliver a quick-paced lesson. This engages students and helps diminish off-task behavior. Secondly, the teacher must be enthusiastic about teaching and acknowledge positive student behavior. Enthusiasm and positive comments promote children's self-esteem and motivate them to achieve more. Third, the educator must be able to follow the DI lesson procedures. This involves preparing/pre-reading the les-

son, following a script (format), and correcting student mistakes. Finally, the teacher must use data (reading graphs, mastery tests, independent work) to guide instructional decisions. If a student is not doing well, the teacher could provide extra practice and review, or place the student in a lower group. However, if a student is achieving well-above expectations, the teacher can skip lessons or place the student in a higher group.

Summary

In sum, teachers must define excellence in terms of their students' successes. Teacher distinction and student excellence is only warranted when students achieve to their fullest potential. Direct Instruction and highly-skilled educators are necessary to the achievement of excellence. Both components promote student success; which, in turn, makes teacher and student excellence attainable. *ADI*

JEAN KRAEMER, SCOTT KRAMER, and HARTLEY KOCH, University H.S. D/HH, Irvine, California. KATHY MADIGAN, National Council on Teacher Quality, Boston, Massachusetts. DON STEELY, Oregon Center for Applied Science, Eugene, Oregon

Using Direct Instruction Programs to Teach Comprehension and Language Skills to Deaf and Hard-of-Hearing Students: A Six-Year Study

ABSTRACT: Over a six year period, teachers at the University High School Deaf and Hard-of-Hearing Program in Irvine, California have used Direct Instruction programs in reading comprehension, spelling, and writing with their students. These programs were designed for and have been effective with regular education and remedial hearing students. This six-year study demonstrates that if certain adaptations are made in how the programs are taught, the performance of deaf and hard-of-hearing students can be greatly increased.

Introduction

Research has shown that deaf and hard-of-hearing students have very serious problems with reading (Lovitt & Horton, 1991), fluency (Cawley, Miller, & Carr, 1990), and text structure (Parmar & Cawley, 1992). Deaf students have particular difficulty with (a) figurative English such as idioms,

similes and metaphors (Hughes, Brigham, & Kuerbis, 1986; McAnally, Rose, & Quigley, 1987); (b) English syntax such as verb systems, negation, conjunctions, complementation, and question structures (Kretschmer & Kretschmer, 1978; Quigley & Paul, 1984; Quigley, Power, & Steinkamp, 1977); (c) pragmatics such as topic maintenance and choice (Brackett, 1983; M. Nichols, personal communication, 1993); and (d) cohesive devices such as pronominalization, temporal adverbs, ellipsis, articles and synonyms (DeVilliers, 1988; Hughes & Moseley, 1988; Kretschmer, 1989). This delay in development of English language, especially in the areas of vocabulary and syntax, interferes with learning to read (Johnson & Evans, 1991; Quigley & Paul, 1989). As a result, most deaf students do not become proficient readers by the time they leave high school, plateauing at about the fourth grade level (Quigley & Paul, 1986).

Students with more profound hearing losses perform at lower levels, as do hearing-impaired Hispanic and African-American students (Holt, 1993). Furthermore, contextual information, which is gained from understanding English structure and syntax, has been found to be even more important for less skilled readers (Stanovich, West, & Freeman, 1981; West & Stanovich, 1973). Research has also shown that limited vocabulary is a serious problem for deaf students (Karchmer, Milone, & Wolk, 1979; LaSasso & Davey, 1987; Silverman-Dresner & Guilfoyle, 1972), particularly those dealing with English function words and common content words (McAnally, et al., 1987).

A review of the research literature shows that there has been limited success in teaching English language to deaf students, regardless of the modality used (Quigley & Paul, 1984). English programs for school age deaf students should include a concurrent focus on all forms of communication, systematic teaching of linguistic competence in semantics, syntax, and pragmatics, and continuous evaluation of progress (Power & Hollingshead, 1982). However, the majority of currently available programs focus on very specific areas of language instruction, most notably syntax or grammar.

Takemori and Snyder (1972) found that few of the programs used with deaf students were actually designed for deaf children, and, more importantly, none were evaluated when used with deaf students. More recently, Wathum-Ocama (1992) surveyed instructional English programs used with deaf students and found that nearly all teachers found age- and interest-appropriateness problems. Nearly half of the teachers noted a serious lack of emphasis on the appropriate English skills.

The effects of poor language-comprehension and vocabulary skills are exacerbated when these students work with other disciplines, such as science and history. For example, 70% of the content and activities in science are drawn from general science textbooks (Raizen, 1988). Tyson and Woodward (1989) labeled these science textbooks as “encyclopedic” compendiums of topics, in which the average hearing sixth grader confronts 300 new vocabulary terms (Armbruster & Valencia, 1989), and the average tenth grader is faced with up to 3,000 new words (Hurd, 1986). For deaf and hard-of-hearing students, language and vocabulary skills provide the key not only to reading comprehension, but also to virtually all other academic school subjects.

Two print programs have been developed specifically for teaching English to deaf students—the *TSA Syntax Program* (Quigley & Power, 1979), which uses reading and writing activities to deduce grammar rules in nine different areas, and *Communicate with Me: Conversation Strategies for Deaf Students* (Deyo & Hallau, 1983), which uses role playing and pictures to focus on conversation skills. A number of computer-assisted specific skill language programs designed for hearing students, such as *Figurative Language* (Abraham, 1984) and *Words and Concepts II* (Wilson & Fox, 1990), have also been used with deaf students. Other programs designed for deaf students utilize computers, computer

networks, videotapes, and videodiscs to teach specific aspects of language skills. The ALPHA computer system (Prinz, Pemberton, & Nelson, 1985) attempts to increase conversation between students and teachers. An interactive videodisc program used at the California School for the Deaf at Riverside (Brawley & Peterson, 1983; Osaka, 1987), allows teachers to tailor grammar lessons around a videodisc story. The Electronic Network for Interaction, developed at Gallaudet

By the end of the 96–97 school year, data were available for two cohorts of students who had been involved in the program for four years. The results show that the approach has produced greatly improved student achievement.

University (Bruce, Peyton, & Batson, 1993), provides opportunities to use written English in communicating with other students on a computer network. The *Hands On* (Hansen & Padden, 1990) program uses a videodisc and computer to simultaneously present English captioning and ASL in various formats such as reading a story, answering questions, writing a story, and captioning a story. None of these programs have been formally evaluated to prove their effectiveness in teaching English semantics, syntax, or pragmatics to deaf students, and none represent an integrated language program as suggested by Power and Hollingshead (1982).

Direct Instruction programs and methodologies were utilized in the Orange County Department of Education Deaf and Hard of Hearing (OCDE D/HH) program. Both the programs and methodology are commonly accepted as effective for use

with all types of hearing students, including low-performing, bilingual, and learning disabled. Direct Instruction programs and methods have a long list of general studies validating their effectiveness with hearing students (Becker, 1984; Brophy & Evertson, 1976; Gersten, Woodward, & Darch, 1986; Haynes & Jenkins, 1986; Lockery & Maggs, 1982; Mathes & Proctor, 1988; Moore, 1986; Silbert, Carnine, & Alvarez, 1994; White, 1988). The most recent cumulative analysis of Direct Instruction programs (Adams & Engelmann, 1996) shows that in a simple comparison of mean scores, 87% of the nearly 40 studies analyzed favored Direct Instruction. In a comparison of statistically significant differences, 64% of the studies favored Direct Instruction while only 1% favored non-Direct Instruction programs. The analysis of effect sizes (Cohen, 1988) showed that Direct Instruction programs had an average effect size of .83 (.75 would be considered large and rare in educational research). Prior to the OCDE D/HH program, there had been no documented usage of Direct Instruction programs with deaf and hard-of-hearing students.

Six years ago, the OCDE D/HH program made a radical change in instruction for 90% of their high school students in self-contained classrooms. This change involved using Direct Instruction programs to teach comprehension, spelling, and language. In previous years, OCDE D/HH achievement scores were typically above the national average for the deaf and hard-of-hearing population, but those scores represented the composite of both mainstreamed and self-contained students. When the data for self-contained students were analyzed separately, it became apparent that their performance was plateauing at the lower levels expected for self-contained students. Plateauing achievement trends, conflicting concerns between IEP mastery and achievement levels, and parental dissatisfaction

tion with student performance were at the heart of this change in teaching methods and materials. By the end of the 96–97 school year, data were available for two cohorts of students who had been involved in the program for four years. The results show that the approach has produced greatly improved student achievement.

Program Description

Direct Instruction programs differ from conventional programs in what is taught and how it is taught. The development of critical skills, concepts, and processes in each subject area are meticulously mapped out. Every necessary sub-skill or concept in a subject area, regardless of how small, is directly and precisely taught and consistently reviewed. Each skill is taught in a manner that allows it to be carefully blended into more complex skills and concepts. The amount of teacher direction and prompting is carefully controlled so that students become increasingly independent in applying the skills. Students learn nearly all new skills in teacher-directed situations. Students apply the skills orally, and then practice the skills independently.

The most observable aspect of Direct Instruction programs is how they are taught. Students are taught in small homogenous groups. Student responses are very frequent and usually done in unison on a teacher's signal. This increases the practice each student gets and makes the most efficient use of instructional time. Individual responses are commonly used to check if particular students have mastered a skill or concept. The pacing is rapid in order to keep student attention. The performance criterion for each exercise is high.

The specific Direct Instruction programs used at UHS are the Science Research Associates *Corrective Reading Series—Thinking Basics, Comprehension Skills, and Concept Applications* (Engelmann, Osborn, & Hanner,

1989), the *Morphographic Spelling Series—Corrective Spelling Through Morphographs* (Dixon & Engelmann, 1979) and *Spelling Mastery Level F* (Dixon, Engelmann, Steely, & Wells, 1990), and the *Expressive Writing Program, Levels 1 and 2* (Engelmann & Silbert, 1985). Except for *Expressive Writing*, all the programs used are designed as remedial programs for use with hearing students in approximately grades four through eight.

The development of critical skills, concepts, and processes in each subject area are meticulously mapped out.

The problem skill areas that *Thinking Basics* addresses for hearing students are the same problem skill areas that most deaf students have. These problem areas include poor argument and logic analysis skills, deficits in vocabulary and common information, poor skills in following directions, and poor statement analysis skills (which are particularly troublesome for students trying to read and retain information). The specific skills taught in *Thinking Basics* include analogies, deductions, inductions, statement inference, basic evidence, and/or, true/false, synonyms/opposites, classifications, definitions, descriptions, and basic information. Additional levels of the series build on these skills.

The skills that *Morphographic Spelling* effectively addresses for hearing students are many of the same skills important for deaf students. The most significant issue is that of having an effective rule-based approach that generalizes spelling beyond specific word lists. The benefit of the morphographic approach, in addition to providing a rule-based approach, is the potential impact to improve vocabulary knowledge, both for hearing students (Becker, Dixon, & Anderson-Inman,

1980; Chomsky, 1970; Chomsky & Halle, 1968; Dixon, 1991; Simon & Simon, 1973; Venezky, 1970), and for deaf students (Hanson, 1993; Hanson & Feldman, 1991; Hanson, Shankweiler, & Fischer, 1983; Hanson & Wilkenfeld, 1985). In addition, *Morphographic Spelling* effectively deals with the problems of adequate practice, corrective feedback, and cumulative review. Additional levels of the series build on these skills.

The *Expressive Writing* program provides a sequence of basic skills and activities that are common to all expressive writing. Students learn to write basic declarative sentences before learning how to modify those sentences with the use of clauses, pronouns, and phrases. Skills include basic mechanics, sentence writing, paragraph and story writing, and editing.

Methods

The Orange County Department of Education Deaf and Hard of Hearing Program was established in 1977. It is a regional special day-class program encompassing grades 6 through 12 at Deerfield Elementary, Venado Middle School, and University High School in Irvine, California. All classes are located on public school sites within Irvine Unified School District. The 1996–97 enrollment was approximately 160 students. The ethnic breakdown is 42% Caucasian, 36% Hispanic, and 22% Asian. Approximately 40% of the students qualify for the free and reduced lunch program.

The 1996–97 OCDE D/HH instructional staff consisted of one FTE Mainstream Resource Teacher, one .6 FTE Career Specialist, 2.8 FTE Speech/Language Specialists, 15 teachers, 17 interpreters, and 17 instructional assistants. Non-instructional staff included one high school principal, one FTE psychologist, and one counselor, with secretarial, audio-logical, nursing, mobility, vision and APE services at each school.

The students involved in this study were those deaf and hard-of-hearing students at the University High School who were not mainstreamed (approximately 60%). Complete data were available for 15 students in the cohort that began in the 92–93 school year and 27 that began in the 93–94 school year. Data from students who began in the 91–92 school year (the first year of Direct Instruction) was too incomplete to include in the data analysis.

In the years 1991–93, all high school teachers of the mainstreamed students participated in the Direct Instruction implementation. In the remaining years, typically two or three teachers declined to participate. The turnover of teachers participating in the implementation has averaged one teacher per year.

In the fall of 1991, after approximately one week of inservice training, the UHS D/HH program began implementation of Direct Instruction in the areas of reading comprehension, language and writing. Some of the teachers began implementing Direct Instruction immediately while others held off for 3 to 4 months. Some of the teachers taught Direct Instruction every day, while others taught it only once a week or once every other week. During the first year, the teachers were monitored approximately once every two weeks by a Direct Instruction teacher trainer or the principal, who had also gone through the Direct Instruction training along with the staff. During the second and third years, teachers were observed approximately once a month. Training in subsequent years involved several days of after-school inservice training and one or two classroom observations, both done by teachers who had taught the program since its initial implementation.

Modifications

During the second and third year of implementation, teachers began to experiment with different aspects of the programs to make them more effi-

cient with deaf and hard-of-hearing students. Some adaptations were made in how the programs were taught. Adaptations to the group response format were made to reduce off-task behavior. A group response from deaf/hard-of-hearing students involves signing/fingerspelling at different rates. Teachers developed several strategies for monitoring multiple rate responses, but frequent repetition of both group and individual responses was still necessary and

Additional modifications were made to provide more individual turns, to use more modeling of desired student responses, and to adjust the rate of student responses.

required strategies for reducing off-task behavior during repeated responses. Additional modifications were made to provide more individual turns, to use more modeling of desired student responses, and to adjust the rate of student responses.

The most difficult modifications in how the program was taught had to do with deciding which signing system to use. The OCDE D/HH program, like most, endorses Simultaneous Communication—signing and speech used simultaneously. However, there was confusion and disagreement over which signing system to use with the Direct Instruction programs. Research also is unclear on whether it is more effective to use American Sign Language (ASL) or some form of manually coded English (MCE) (Brasel & Quigley, 1977; Corson, 1973; Vernon & Kohl, 1971; Weisel, 1988). Although ASL can represent the entire range of language capabilities and constraints (Lillo-Martin, 1986; Padden, 1988; Padden & Perlmutter, 1987; Supalla, 1985), its utility in teaching English is very problematic, and its efficacy in

doing so has not been formally evaluated. The attempts to force ASL into English grammatical form (ASL signs and invented forms representing affixes and other grammatical elements produced in English word order) have also been problematic and have not been rigorously evaluated. ASL and some of these MCE forms (SEE and CASE) omit function words, such as “a” and “the,” and omit some affixes. Conceptual inaccuracies in some MCE forms present serious misconceptions when teaching about English syntax and semantics. In SEE II, the same sign can be used for very different concepts if that sign meets two of three criteria (written the same, pronounced the same, or signed the same), thus resulting in visual homophones. As a result of these criteria, the SEE II sign for dresser can refer both to a person or a piece of furniture.

Additionally, there has been criticism of MCE forms in general from ASL proponents—that MCE forms violate structural rules of ASL (Charrow, 1975; Marmor & Petitto, 1979), and that certain English elements are not learnable (Gee & Goodhard, 1985; Johnson, Liddell, & Erting, 1989; Supalla, 1991). The fact that many deaf adults are fluent in written English would discredit the latter claim. In relation to violating the structural rules of ASL, acknowledging ASL as a first and preferred language for the deaf does not lessen the need for an adequate internalization of the English language system in order to understand written English. Certainly there are violations of ASL structure in English, but students must be able to literally translate and remember English sentences in order to understand them, especially when dealing with such grammatical structures as similes and metaphors.

The approach taken by the teachers in the University High School study has been to utilize a combination of ASL and CASE. Each has specific strengths and weaknesses for representing and

explaining particular concepts and word functions in English. Some tasks, particularly in comprehension, require CASE for absolute word for word fidelity, while other tasks are more conceptual and can utilize ASL. If careful attention is paid to concept accuracy and sign consistency, ASL and CASE can be used effectively to teach English language skills while still maintaining the preeminence of ASL for general communication.

In addition to modification of how the programs were taught, modifications were also made in what was taught. Wording of student directions was changed to meet the needs of deaf and hard-of-hearing children. The most significant modification was generating and adding pre-lesson vocabulary lists for reading comprehension lessons in order to avoid time consuming vocabulary explanations in the middle of a lesson. Prior to entering the University High School program, the students had been exposed to differing amounts of instruction in ASL, CASE, and SEE II. Consequently, approximately five minutes of vocabulary work and review was needed at the beginning of each lesson to bring all students to a common level of fluency. This vocabulary component included ASL signs that were unfamiliar or difficult for the students (or teachers), invented signs (such as the sign for “morphograph”), and the unique signing utilization of CASE.

Results

Data for all students in the UHS D/HH program are from the Comprehensive Test of Basic Skills (CTB/McGraw-Hill, 1989). Although this is a commonly used test, it has not been normed for the deaf population. Comparisons in this section are made to the Stanford Achievement Test (The Psychological Corporation, 1989b), a similar test which has been normed for the deaf population. Results of tests of significance are only

given for comparisons with in the UHS D/HH population.

Performance Levels Attained

The usage of these Direct Instruction programs with deaf students produced grade-level gains greater than the average for students in self-contained classrooms. Twelfth grade students in self-contained classrooms who had spent four years in the program averaged 5.7 in reading comprehension, 7.0 in spelling, and 7.2 in total language. These grade-level averages are above the national averages for deaf students in self-contained classrooms by 2.8 years, 2.2 years and 4.4 years respectively (as reported by Holt, Traxler, and Allen [1992] of the Gallaudet Center for Assessment and Demographics[CADS]). The Direct Instruction averages are also above the CADS averages for all deaf and hard-of-hearing students (including mainstreamed) by 1.2 years, .9 years, and 2.7 years respectively. Figure 1 displays these results.

Gain Scores

Gain scores for students in the Direct Instruction programs were also greater than gains for the comparison groups. Compared to end-of-year testing in the 8th grade (baseline), 12th grade

UHS students in self-contained classrooms averaged gains of 2.5 years in reading comprehension, 3.8 years in spelling, and 3.0 years in total language. Gains over the same period for CADS self-contained students were .0 years, 1.3 years and .0 years respectively. Gains for all CADS students (including mainstreamed) were .4 years, .9 years and .3 years respectively. Figure 2 shows these gain comparisons.

Importance of Teacher Training and Implementation

The importance of teacher training in Direct Instruction programs and methods has been noted in situations that require changes in classroom practices (Becker, 1986; Gage, 1985), changes in teacher attitudes (Gersten et al., 1986), and field-based experiences (Welch & Kulic, 1988). Of particular importance to implementing Direct Instruction programs is the observed difficulty of training teachers to implement good pacing (Gersten, Carnine, & Williams, 1982; Marchand-Martella & Lignugaris/Kraft, 1992). An additional concern in using Direct Instruction programs with deaf students is the burden placed on the teacher—having to watch five or more students signing and fingerspelling answers at different rates and having

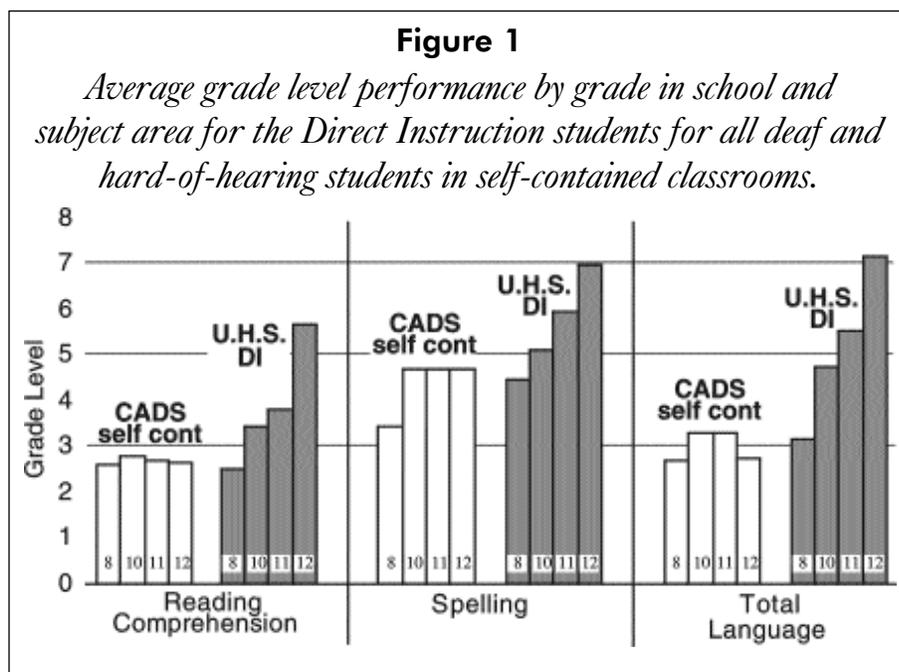
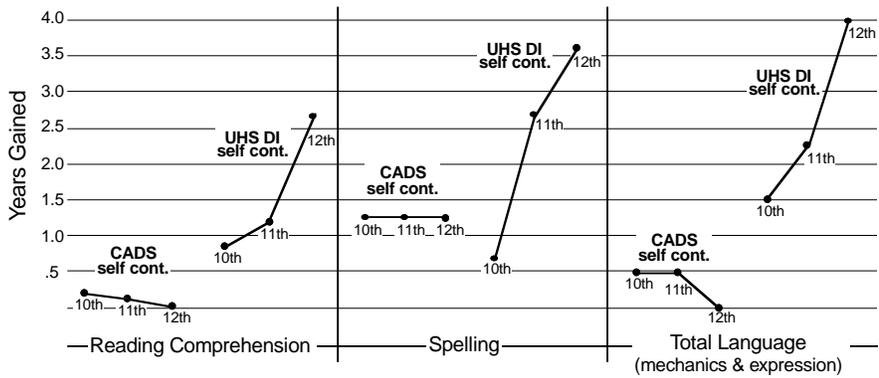


Figure 2

Average cumulative gains by grade level and subject area for Direct Instruction students and all deaf and hard-of-hearing students in self-contained classrooms.



to read scripted instructional presentations and translate those presentations consistently to students in an English signing system. These additional burdens make training teachers of the deaf and hard-of-hearing to use these programs not only more difficult, but more important.

In the University High School study, teacher training and program implementation were critical variables. For years in which most teachers were not sufficiently trained (no inservice or preservice training or no follow-up

observations), program implementation was weak (less than 50% of the teachers taught the DI programs three or more times per week); experimental students showed greater gains than 90–91 UHS students (baseline), but not at a significant level. For years in which teacher training and implementation met the minimum levels, experimental student gain scores were significantly greater than the 90–91 UHS students (.001 level). Over the last five years, when UHS students from well-implemented classrooms with well-trained teachers are compared to

students from poorly implemented classrooms with poorly trained teachers, students from the well-implemented and trained classrooms always perform at a higher level (significant at the .02 to .001 levels). Figure 3 shows this comparison.

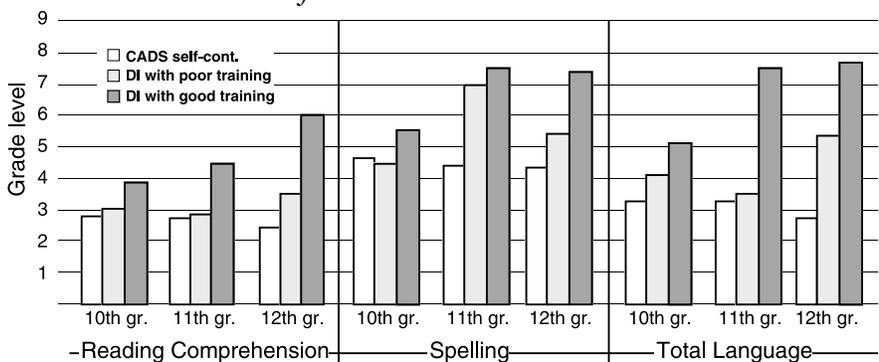
Discussion

Although 12th grade students in the Direct Instruction programs perform much better than national averages, a great proportion of their gains come in the last year of instruction (11th to 12th grade). In the first two years of high school, the UHS students outperform CADS averages for self-contained classrooms but usually do not outperform CADS overall averages (including mainstreamed students). A great part of this trend is probably due to the fact that the UHS deaf and hard-of-hearing students typically complete less than one-half an instructional lesson each school day and are typically taught the Direct Instruction programs only three days a week. It is not uncommon for students to spend more than two years covering just the introductory level program in a series. The introductory levels of the programs typically focus on basic-level component skills. It is often not until the middle of the second program of a series that these component skills have been developed and practiced enough that they can be brought together into broadly generalizable operations. Many of the students involved in the UHS program do not get to these programs until sometime in their 11th grade year. Consequently, the full impact of the Direct Instruction programs is not as observable until the last year of instruction. By the end of 12th grade, students in the DI programs outperform the CADS overall averages for all deaf students.

A solution at the high school level is to increase the student's exposure to Direct Instruction to five days a week. Another perhaps more desirable solution might be to begin using the

Figure 3

Average grade level performance by grade in school and subject area for Direct Instruction students with well-trained teachers, Direct Instruction students with poorly trained teachers, and for all deaf and hard-of-hearing students in self-contained classrooms.



Direct Instruction programs much earlier. To test this latter solution, a sample of both fourth grade and seventh grade students from UHS D/HH feeder schools will begin working with these same Direct Instruction programs during the 1997–98 school year.

As is apparent in Figure 3, teacher training and good classroom implementation (widespread usage at least three times per week) make an enormous difference in student performance. Initially, teachers complained that teaching DI programs seemed awkward, unnatural, robotic, and boring. They said there were too many hands to monitor for correct finger-spelling and signed responses. Many did not see the point of utilizing a scripted lesson presentation. For all teachers, there were problems adapting directions and tasks written for hearing students. Generally, teachers felt it was not until the third year of the implementation that sufficient modifications had been made to make the DI programs work smoothly and most effectively.

Although program and technique modifications have solved many of the original training and implementation problems, there remains the significant problem of having all teachers, especially new teachers, consistently follow the common set of practices that has been developed and that has proven effective. This point is particularly true for the conventions regarding when to use ASL and CASE and what sign conventions to use for many of the vocabulary words. These are critical aspects because they directly affect lesson pacing and mastery.

The implementation of Direct Instruction programs, whether with hearing or deaf students, requires significant changes in how teachers teach. Implementations with teachers of the deaf and hard-of-hearing require

additional modifications and additional emphasis to ensure consistency of signing conventions. The data show the effect of good training and implementation. To ensure good training and implementation with teachers of the deaf and hard-of-hearing, on-going teacher observation and training are needed. A preliminary research study has recently been completed which

Direct Instruction programs in comprehension, spelling, and writing have been shown to produce considerable test-score gains for deaf and hard-of-hearing high school students in self-contained classrooms.

shows the feasibility of using a computer teaching and training program to provide such training while simultaneously presenting lessons to the students.

Conclusion

Direct Instruction programs in comprehension, spelling, and writing have been shown to produce considerable test-score gains for deaf and hard-of-hearing high school students in self-contained classrooms. To make these programs work efficiently with deaf and hard-of-hearing students, adaptations must be made in how the programs are taught and how to most effectively combine usage of ASL and CASE. Teacher training and widespread consistent usage of the programs are necessary to obtain the greatest impact. Although the high school student gains reported in this study are impressive, earlier and more consistent use of these programs and techniques has the potential of producing students who can attain much higher levels of performance.

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Author Note

The University High School Program utilizing Direct Instruction is currently in its eighth year and has expanded to include similar programs at feeder schools. An ongoing research study, funded by NICHD, is examining the efficacy of a computerized teacher training and lesson presentation program.

Correspondence concerning this article should be addressed to Don Steely, Oregon Center for Applied Science, 1839 Garden Avenue, Eugene, OR 97403. Electronic mail may be sent to dsteely@orcasinc.com. 

Academic and Social Benefits of a Co-enrollment Model of Inclusive Education for Deaf and Hard-of-Hearing Children

Kathryn H. Kreimeyer

Arizona State Schools for the Deaf and Blind

Pamela Crooke

Cynthia Drye

Vivian Egbert

Barbara Klein

Miles Exploratory Learning Center

Deaf and hard-of-hearing (d/hh) students are traditionally educated within self-contained programs at residential or special day schools, within self-contained or resource classrooms in public schools, or within regular education classrooms with support provided by an itinerant teacher. The co-enrollment model offers a promising alternative in which these students are educated within a regular education classroom composed of both d/hh and hearing students and team-taught by a teacher of the deaf and a regular education teacher. This article examines the development of one such program and the social and academic performance of the d/hh students within the program. Data on social interaction between d/hh and hearing classmates suggest that specific instructional strategies that promoted students' sign language development, identified d/hh students as "sign language specialists" and grouped d/hh and hearing students during academic activities resulted in increased interaction between these two groups of students. Stanford Achievement Test scores in the areas of reading vocabulary, reading comprehension, mathematical problem solving and procedures indicate that although d/hh students scored below the national normative hearing group, reading comprehension levels exceeded the national normative sample of d/hh students during both years two and three of the program. We discuss the challenges of implementing a co-enrollment program.

One model of inclusive education for students with hearing losses is a co-enrollment program in which deaf/hard-of-hearing (d/hh) students and typical hearing students learn together in a classroom that is co-taught by a regular education teacher and a teacher

of deaf children. Although documentation of the effectiveness of a co-enrollment program is limited, this model provides d/hh students with opportunities for academic and social integration with hearing peers that may not occur in self-contained or resource classrooms. As members of a co-enrollment classroom, d/hh students study the same academic curriculum as their hearing peers. While exposure to grade level curriculum also occurs for students receiving itinerant services, an advantage of the co-enrollment model is that a teacher of the deaf can explain curricular information and match individual student needs. Additionally, d/hh students can become true social members of the class because they are involved in all classroom activities with a stable group of peers. The teacher of the deaf can encourage student interaction by providing ongoing instruction in sign language and appropriate communication methods for both hearing and d/hh students. Whereas many public school programs for d/hh students enroll only one student with a hearing loss at a specific grade level, co-enrollment classrooms include multiple d/hh students, thus making regular interaction with d/hh peers another integral part of this model.

One of the first co-enrollment programs in the United States, TRIPOD, was founded in 1982. TRIPOD classes are co-taught by a regular education teacher and teacher of d/hh students. All teachers learn to communicate in American Sign Language (ASL) and several deaf teachers facilitate the process of sign language acquisition for students and hearing teachers. Results of the Stanford Achievement Test ad-

Correspondence should be sent to Kathryn H. Kreimeyer, Arizona State Schools for the Deaf and Blind Statewide, P.O. Box 87010, Tucson, AZ 85754. (email: KKreimeyer@email.msn.com).

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ministered to 49 students ages 7 through 15 years in 1994, 10 years after the program was implemented, indicate that the math skills of TRIPOD d/hh students were approximately 1 year level above the scores of the 1990 national normative sample of d/hh students. Reading comprehension scores were comparable to this sample through age 13, after which TRIPOD students began to move ahead of the normative group, with the difference between the two groups growing to one and a half grade levels in favor of the TRIPOD students by age 15 (Kirchner, 1996). Socially, d/hh students and hearing students developed friendships that were maintained outside of the classroom setting and learned to comfortably communicate with one another (Boyle, 1994; Kirchner, 1994, 1996). Kluwin, Gonsler, Silver, and Samuels (1996) reported that implementation of a co-enrollment kindergarten program resulted in regular interaction between d/hh and hearing students and “astonishing” sign skill development among hearing students (p. 14).

In August 1995, a public school in Tucson, Arizona, initiated a co-enrollment program. Fifteen deaf and hard-of-hearing students ranging from kindergarteners to eighth graders, who had received their prior education within self-contained classrooms for d/hh children, became members of classrooms that included hearing students. By the third year of the program, enrollment increased to 25 d/hh students. This article describes the development of this co-enrollment program through informal interviews conducted with the principal, classroom descriptions provided by one of the co-enrollment teaching teams, and data on the d/hh students’ academic performance and social interaction with hearing peers.

Method

The information provided in the following section was obtained through informal interviews and conversations with the school principal, the co-enrollment classroom teachers, and the speech-language pathologist serving this classroom. Interviews with the principal were audiotaped and transcribed to yield information related to the formation of the co-enrollment program and issues that emerged during implementation of the program. Conversations with the teachers

and speech language pathologist typically occurred within the classroom after school or during lunch breaks with written notes being recorded. In some instances specific questions were presented in a written format with these participants supplying written responses. These conversations served as a primary source of information on classroom procedures and student behavior and elicited reflection on the impact and future of the co-enrollment program.

Description of Setting

The co-enrollment program was initiated within an alternative public school that had been created to explore multiple ways of grouping and instructing students, to evaluate collaborative planning strategies utilized by teachers, and to investigate the impact of school organization on teachers and students. During the 1997–1998 school year, the third year of the co-enrollment program, the school enrolled 282 students in kindergarten through eighth grade. The school population reflects the diverse ethnic, socioeconomic, and educational population of the Tucson community. Approximately 50% of the students are from ethnic minority families and 60% of the enrolled students qualify for reduced price lunches. Seventeen percent of the students receive special education services. Although students were grouped in traditional grades previously, the school presently is composed almost exclusively of multi-age classrooms to promote learning across ages as well as abilities. In most situations, students remain in the same classroom, with the same teacher(s) for a period of three years. Multi-age classrooms provide students with the opportunity to assume the role of “expert” with peers as well as to receive assistance from peers, to develop significant friendships with classmates, and to address academic subjects in a manner commensurate with their own learning level (Dorta, 1995). Multi-age classrooms give teachers an opportunity to develop an intimate knowledge of their students’ learning styles, their progress across academic subjects, the areas in which they excel as well as the areas in which focused instruction is needed, and students’ social development and friendship patterns (McClellan, 1994).

Prior to the implementation of the co-enrollment

model, d/hh students were educated within a self-contained classroom taught by a teacher of the deaf. Several of the students joined hearing peers for recess, lunch, and other nonacademic subjects with the support of an interpreter. Although d/hh students spent an hour a day in regular education classrooms, true inclusion of these students did not occur. The limited time period prohibited d/hh students from learning the classroom routines and expectations or developing friendships with hearing peers. Likewise, hearing students did not develop the sign language skills necessary to communicate with these students. Part-time participation in the regular classroom was viewed by the hearing students and regular education teacher as disruptive and by the d/hh students as frustrating. Academically, these students functioned substantially below grade level in reading, writing, and mathematics. The low academic achievement levels and the social isolation of the d/hh students prompted school personnel to consider alternative educational approaches. An article describing the TRIPOD program initiated interest in the co-enrollment model, and a team of teachers and the school principal traveled to California to observe the program and interview students and classroom teachers. The enthusiasm of the TRIPOD teachers, the observed interaction between d/hh and hearing students, and students' academic achievement levels prompted serious discussion and subsequent implementation of the co-enrollment model.

Participants

During the first year of the co-enrollment model, a 2/3/4 multigrade class included 9 d/hh students and 19 hearing students. The second year, the grade levels changed to 3/4/5 to accommodate the older d/hh students and enrollment was 8 d/hh students and 17 hearing students. In the third year of co-enrollment, this intermediate 3/4/5 classroom included 7 d/hh students and 23 hearing students. Additional co-enrollment classrooms at the primary and middle school level operated at the school but initially enrolled smaller numbers of students. The greater number of students enrolled in the intermediate classroom prompted the investigation of this classroom. A brief description of each of the d/hh students in the intermediate classroom during the second year of the co-enrollment program is presented in Table 1. Second-year participants are described because collection of academic data began during this year.

Since its inception, the intermediate co-enrollment classroom has been instructed by two teachers with extensive speech/language support provided by a speech language pathologist. The regular education teacher has 29 years of experience with kindergarten through sixth grade students. She is a trained Reading Recovery teacher and has taught in multi-age as well as traditional general education classrooms. The certified teacher of d/hh children has interpreter-level sign

Table 1 Description of deaf/hard-of-hearing students

Student	Age/Grade ^a	Unaided loss (PTA) ^b	Communication method (primary and supportive)	Hearing aid use	Comments
Lynda	9 yrs/3rd	59 dB	Speech and sign	Bilaterally aided	Possible learning disability or borderline retardation
Terrence	9 yrs/3rd	110+ dB	Sign and speech	Cochlear implant (at age four)	
Russell	10 yrs/3rd	87 dB	Sign and speech	Unilaterally aided	
Peter	9 yrs/4th	93 dB	Sign only	Unilaterally aided	
Andrea	10 yrs/4th	45 dB	Primarily oral	Bilaterally aided	Learning disability, Spanish and English spoken in home
Nathan	10 yrs/4th	101 dB	Sign only	Bilaterally aided	
Brittany	10 yrs/4th	87 dB	Speech and sign	Unilaterally aided	Spanish spoken in home

Fictitious names have been used to preserve confidentiality.

^aSecond year/spring semester of co-enrollment program.

^bPTA at 500, 1,000, 2,000 Hz in better ear.

skills and is also a speech/language pathologist certified by the American Speech and Hearing Association (ASHA). She had provided speech/language services for most of the d/hh students at the school prior to becoming a classroom teacher. The speech language pathologist is ASHA certified with a doctoral degree in child language and has basic skills in ASL.

Procedures

One of the major tasks facing members of a co-enrollment classroom is to establish a means of communication that allows direct interaction between hearing and d/hh individuals. Although an educator of d/hh children and an interpreter can facilitate communication between deaf and hearing classmates, it is essential that hearing members of the classroom develop the sign skills and visually based communication methods necessary to converse with d/hh students. At the same time, the presence of hearing peers may motivate d/hh students to increase their use of spoken language during conversation.

Sign skill development of the hearing students. To help hearing students learn to sign with their d/hh classmates, specific intervention procedures were initiated during the second week of the school year. Deaf/hard-of-hearing students were designated as “signing specialists” in the classroom and teachers emphasized their expertise in this area to all students. Three primary activities were implemented to facilitate sign language development. Beginning with the second week of school, a daily 10- to 15-minute time period was designated as “Drop Everything and Sign.” During this time period, the d/hh “signing specialists” were paired or grouped with hearing peers and sign or nonvocal communication was the required means of conversation. A second instructional activity focused on teaching signs in a game format. Once a week for approximately 30 minutes the teaching staff directed signing games in which the d/hh children served as mentors for their hearing peers. Finally, the classroom schedule was designed so that much of the daily teacher-directed instructional time occurred within small groups. These groups were purposely composed of hearing and d/hh students to again promote signing interaction between

students. Teachers encouraged the students to communicate by pointing, gesturing, and pantomiming in addition to using their developing sign skills. When these strategies were ineffective, students were able to seek assistance from a signing adult.

Interestingly, another activity that promoted acquisition of sign language was soccer. Although teachers did not anticipate that this playground activity would play a significant role in promoting interaction between d/hh and hearing students, several of the members of the classroom, including d/hh students, participated in soccer teams outside of school. These students became leaders during lunch and recess soccer games and this competitive activity motivated students to develop the communication skills necessary to fully participate in the games.

The effectiveness of the classroom sign language activities was demonstrated within the first quarter of the program as d/hh and hearing classmates began to sign with each other. By the end of their first year in the co-enrollment classroom, most of the hearing students comfortably spoke and signed during class discussions and presentations. According to teacher reports, their individual conversations with d/hh peers occurred in sign and without voice 50%-60% of the time.

Teachers noted that female students showed a stronger interest in sign language and developed sign skills more rapidly than male students. Friendships between d/hh students and hearing students therefore first developed between female students. Interactions between d/hh and hearing males were initially based more on physical actions, such as pulling at each other, taking each other's hats, and poking one another.

At the beginning of each school year, new students joined the co-enrollment classroom. Immersion into a signing environment both promoted and demanded acquisition of sign language. During the second year of the co-enrollment classroom, two hearing students joined the class and both were communicating with sign language by the end of the first month. During the third year approximately half of the students were new to the classroom and many began to sign within two months.

To effectively communicate with d/hh students it is important to utilize attention-getting behaviors that do not depend exclusively on auditory strategies. Through

instruction and direct modeling, the students in the co-enrollment classroom learned to tap d/hh classmates on the arm or shoulder to direct their attention to the teacher and to obtain their attention before conversing with them. Both the regular educator and the teacher of the deaf stated that the increased use of visual attention-getting strategies and the emphasis on obtaining attention prior to presenting new information benefitted the hearing students as well as the d/hh students.

Sign skill development of the regular educator. In addition to the teacher of d/hh children and the regular classroom teacher, a teaching assistant with sign skills, supported instruction, and initially served as interpreter when the regular educator provided instruction or communicated with d/hh students. As the regular educator knew only a few signs prior to involvement in the co-enrollment classroom, her primary source of instruction was actual participation in the classroom. Direct communication between this teacher and the d/hh students was limited initially to pointing, gesturing, physical manipulation, and modeling of expectations and needs. As her sign skills developed, the regular educator accompanied spoken English with signs first during one-on-one conversations with d/hh students and then during selected instructional lessons. The teacher of the deaf or the teaching assistant provided assistance when she was unable to understand students or they were unable to understand her. By the beginning of the third year of co-enrollment, the regular educator estimated that she signed independently approximately 80% of the time, using primarily ASL conceptual sign accompanied with spoken English. She comprehended d/hh students' signing approximately 85% of the time within context and 70% of the time out of context.

Data Collection

The primary goal of the co-enrollment model is to provide an inclusive educational program for d/hh students. To achieve this goal, d/hh students must comfortably interact with hearing as well as d/hh peers and demonstrate growth in academic subject areas. This section presents data on the social interaction between d/hh students and their hearing classmates and on the

reading and mathematics achievement of the d/hh students. Additionally, the academic achievement of the hearing students in the co-enrollment classroom will be compared to that of hearing students in classrooms that did not include d/hh students.

Social interaction between d/hh students and their hearing peers. When the co-enrollment classroom began, teachers observed that the d/hh students tended to self-segregate. The students communicated little with one another or with their hearing peers. This lack of social interaction also has been reported in the literature (Antia, 1982; Antia, Kreimeyer, & Eldredge, 1994; Arnold & Tremblay 1979; Levy-Shiff & Hoffman, 1985).

During the first year of the co-enrollment program, a single subject AB research design documented the impact of the co-enrollment model on the social interaction between d/hh students and their hearing classmates by recording the frequency of peer interaction within the classroom and a generalization setting, the school lunchroom. Within this methodology, an A phase, or baseline period, provides data on the occurrence of the dependent variable prior to intervention. Once baseline data demonstrate consistency in occurrence, the intervention or B phase of the study is implemented. The effectiveness of intervention is demonstrated by (1) change in the frequency of occurrence of the dependent variable following implementation of the intervention and (2) minimal overlap in the frequency of occurrence of the dependent variable during the baseline and intervention phases. In this study, the frequency of social interaction between d/hh and hearing peers served as the dependent variable and the co-enrollment intervention as the independent variable.

All students within the intermediate classroom participated in this study with observational data collected on the frequency of peer interaction between d/hh students and their hearing classmates and d/hh students and their d/hh classmates. Peer interaction was defined as any linguistic or nonlinguistic attempt to gain a listener's attention or to communicate through linguistic or nonlinguistic means. Interaction attempts could be initiated by a hearing student to a d/hh classmate or by a d/hh student to a d/hh or hearing classmate in the absence of adult prompting. Linguistic attempts included communication through spoken or

signed language and nonlinguistic attempts included gesturing, pointing, pantomiming, tapping, and waving. Each d/hh student was observed in the classroom by the speech language pathologist for a 20-minute live and/or videotaped period and each peer interaction involving the student recorded. Identical procedures were used to collect generalization data in the lunchroom. Since d/hh students typically sat at the same table in the cafeteria, it was possible to record data on two to three students during the 20-minute lunchtime period.

Beginning on the second day of the school year, daily baseline data were collected on each d/hh student for the first week. During this week-long baseline period, the speech language pathologist remained in the classroom throughout the entire day to catch all appropriate data collection opportunities. Treatment was initiated at the beginning of the second week of school and during this phase of the study, individual student data were collected twice a month from September to December and then once a month from January to May. Data collection sessions were spaced over a 1- to 2-day time period. During classroom observations, students engaged in a variety of academic activities that allowed for interaction. Lunchroom observations occurred in the school cafeteria when 60–80 students were present. Cafeteria personnel distributed food and collected payment for lunches and one nonsigning monitor supervised all students in this setting. Students could eat lunch with any other student in the lunchroom but generally elected to sit with their classmates. All students were required to remain in the cafeteria for at least 20 minutes.

During the week-long baseline period, teachers emphasized the learning of classroom routines and procedures but provided no specific sign language instruction. After this first week the previously described intervention was implemented (i.e., d/hh students assumed roles as signing specialists and teachers structured specific sign language instruction and small-group activities).

Reliability data were recorded for 10% of the observational sessions within each environment by another speech language pathologist at the school and a university graduate student in this field. Both of these individuals were familiar with the students. Interobserver reliability for frequency of interactions was

computed using Cohen's κ (Cohen, 1965) and results indicated a κ of 1.0 or 100% agreement on occurrence of interaction.

Social Interaction Results

Figure 1 presents data on the frequency of interaction in the classroom for d/hh students. Two of the students described in Table 1, Terrence and Russell, did not join the classroom until the second year of the program. Because these data were collected during the first year of the program, these students are not included in Figure 1. After the co-enrollment intervention was initiated, data indicate that interaction increased between the d/hh students and their hearing classmates with concomitant decreases in interaction with d/hh peers for at least some portion of the intervention period.

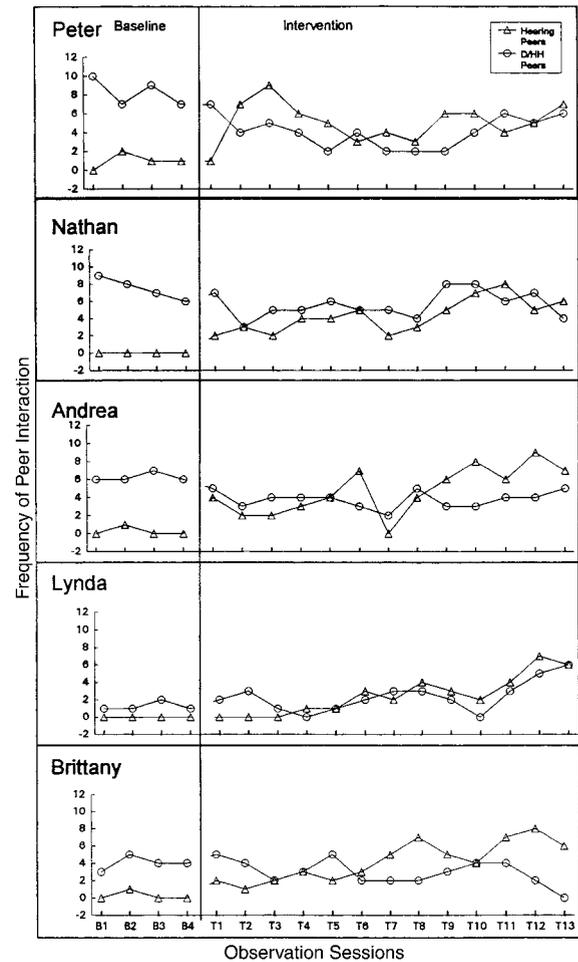


Figure 1 Frequency of interaction with hearing and d/hh peers in the classroom.

Baseline and intervention data demonstrate minimal overlap in the occurrence of interaction with hearing peers. Although rapid increases in interaction with hearing classmates are evident for four of the five students, one student, Lynda, has a slower rate of increase possibly as a result of her additional disability.

Figure 2 presents generalization data on the frequency of peer interaction in the lunchroom. The brevity of the lunchtime period permitted collection of only two data points during the baseline phase. No data are available for Peter and Nathan during the second baseline session as they left the cafeteria after 18 minutes of data were obtained, thereby preventing the full 20-minute observation. No interaction with hearing

peers occurred during this 18 minutes, but is not possible to determine whether interaction might have occurred if the observation had continued for an additional two minutes. Again Lynda demonstrated the slowest rate of change. The two zero intervention points recorded for Peter and Nathan during treatment observation 12 occurred on a day when they elected to sit by themselves and thus interacted only with one another. Although interaction between d/hh students and their hearing peers did not reach levels commensurate with those observed in the classroom, the increase following implementation of the co-enrollment intervention indicates that d/hh and hearing students were interacting with one another outside of the classroom when teachers were not present to prompt or structure such interaction.

Academic Achievement of D/HH Students

In April of the second and third year of the co-enrollment program, all students in the classroom completed the Stanford 9 Achievement Test (Harcourt Brace Educational Measurement, 1996). The Stanford 9 has eight test levels that correspond to curriculum content commonly taught to hearing students in specific grade levels. The d/hh students had their first experience with standardized testing when they took the Stanford 9 during the second year of this program. It is common for d/hh students to take levels of the Stanford that correspond to their reading levels and are therefore often below their grade level. The students in the co-enrollment program completed the test level that corresponded to their grade level (i.e., third-grade students completed Primary 3 level, fourth-grade students completed Intermediate 1 level, and fifth-grade students completed Intermediate 2 level). The test was administered within the classroom to all students simultaneously. Provision of instructions in both oral English and sign language was the only procedural modification.

One of the challenges in comparing the performance of the d/hh students in the co-enrollment program to the hearing and d/hh normative groups is the two different ways in which these normative data are reported. Normative data for hearing students are presented by test level with a specific scaled score corre-

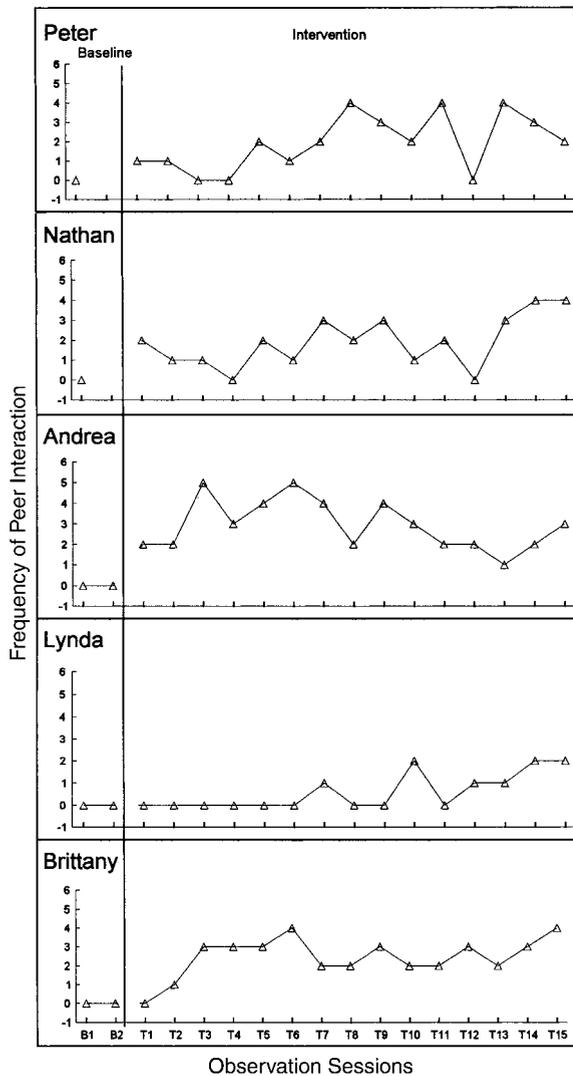


Figure 2 Frequency of interaction with hearing peers in the lunchroom.

sponding to a specific grade level. For example, a scaled score of 619 on the Primary Level 3 reading comprehension subtest corresponds to the 3.8 grade level (3rd grade, 8th month of school). To compare the performance of the students in the co-enrollment program to the national norms for hearing students, each student's scaled score was compared to the scaled score for same-grade hearing students. Because the test was administered at the beginning of the eighth month of the school year, a grade equivalent of 3.7 or 3.8 on the Primary 3 level was used for third-grade students, 4.7 or 4.8 on the Intermediate 1 level for fourth-grade students, and 5.7 or 5.8 on the Intermediate 2 level for fifth-grade students. The higher grade level was used unless it was not available in the norm tables, in which case the next lower grade level was used to determine the comparative scaled score equivalent.

Normative data for d/hh students are presented by age with a specific scaled score corresponding to a percentile rank. To compare the performance of the students in the co-enrollment program to the national norms for d/hh students, each student's scaled score was compared to the scaled score obtained by same age d/hh students (9-year-old, 10-year-old, or 11-year-old

norms) at the 51st percentile or at the 50th percentile if no scores were provided for the 51st percentile. When a range of scores was given, the lower end of the range was selected as the normative scaled score at the 51st percentile or the upper range at the 50th percentile. For example, for nine-year-old students, the range of scaled scores in mathematics problem solving is 547–550 at the 51st percentile. In this example, 547 was selected as the normative scaled score. Normative comparisons were made for reading vocabulary, reading comprehension, mathematical problem solving and mathematical procedures.

Academic Results

We conducted paired sample *t* tests to determine whether significant differences existed between the mean scaled scores obtained by the students in the co-enrollment program and the d/hh and hearing normative populations. Results of these tests are presented in Table 2 for years 2 and 3 of the program. The degrees of freedom vary because two students moved at the end of year 2, and during both years, several students failed to obtain a basal level on some subtests.

Table 2 *T*-tests for paired samples for Stanford 9 achievement subtests of students in the co-enrollment program compared to normative samples

Subtest	Paired comparisons	Yr	<i>M</i> (<i>SD</i>)	<i>df</i>	<i>t</i>
Reading vocabulary	D/HH norms to co-enrollment students	2	-51.0 (44.3)	3	-2.3
		3	-36.5 (26.1)	1	-2.0
	Hearing norms to co-enrollment students	2	50.3 (40.4)	3	2.5
		3	76.0 (12.7)	1	8.4
Reading comprehension	D/HH norms to co-enrollment students	2	-35.6 (21.4)	6	-4.4 ^{***a}
		3	-37.0 (18.6)	3	-4.0 ^{**a}
	Hearing norms to co-enrollment students	2	49.9 (16.9)	6	7.8 ^{***b}
		3	49.5 (11.9)	3	8.3 ^{***b}
Mathematics: problem solving	D/HH norms to co-enrollment students	2	-12.7 (19.9)	6	.1
		3	-36.0 (31.1)	2	-2.0
	Hearing norms to co-enrollment students	2	49.3 (18.6)	6	7.0 ^{***b}
		3	31.7 (21.0)	2	2.6
Mathematics: procedures	D/HH norms to co-enrollment students	2	-2.7 (19.2)	6	-.4
		3	-53.7 (45.9)	2	-2.0
	Hearing norms to co-enrollment students	2	68.3 (23.4)	6	7.7 ^{***b}
		3	37.0 (30.6)	2	2.1

^aCo-enrollment mean above comparative group.

^bCo-enrollment mean below comparative group.

**p* < .05.

***p* < .01.

Statistical results indicate no significant difference between the mean scaled score obtained by the students in the co-enrollment program on the reading vocabulary subtest and the scores of the d/hh and hearing normative sample. On the reading comprehension subtest, significant differences exist between the students in the co-enrollment program and the d/hh normative sample and between these students and the hearing normative sample. Students in the co-enrollment program scored above the d/hh normative sample but below the hearing normative sample. No significant differences were evident when student scores on the mathematical problem-solving subtest were compared to those for the d/hh normative sample, but significant differences did exist during year 2 between the students in the co-enrollment program and the hearing normative sample, with the students in the co-enrollment program again scoring below their hearing counterparts. This pattern was repeated on the mathematical procedures subtest.

Academic Achievement of Hearing Students

One concern raised by some parents, administrators, and teachers is the impact of special needs students on the academic development of typical students. To address concerns expressed to the school principal that the presence of multiple d/hh students might impede delivery of curriculum and thus academic achievement of typical students, we conducted *t* tests for equality of means to compare the Stanford achievement scores of the hearing students in the co-enrollment classroom with those of same grade peers in classrooms that did not include d/hh students. Data from both the second and third years of the co-enrollment program yielded no significant differences between these groups on any of the Stanford subtests.

Discussion

The primary goal of a co-enrollment program is to promote full inclusion of deaf and hard-of-hearing students within a regular education classroom that includes both d/hh and hearing classmates. Within the co-enrollment classrooms at this school, instruction is provided by a teacher of the deaf and a regular class-

room teacher, who implement specific instructional strategies focused on teaching sign language to hearing students, creating learning groups composed of both d/hh and hearing students, and encouraging d/hh students to assume the role of classroom "signing specialists." Teachers reported that hearing students began to sign with their d/hh students within a short time, and personal observations of this classroom during the second and third year of the program support this report as some students' use of sign without voice made it impossible to distinguish between students who were deaf and those who were hearing. Luckner (1999) conducted a year-long study of several co-enrollment classrooms in Colorado and he too noted that visitors to the classrooms found it difficult to distinguish between deaf and hearing students working together on classroom projects.

Data obtained on the frequency of social interaction indicated that the co-enrollment program resulted in increased interaction between d/hh and hearing students within the classroom setting. Although the AB design used to document change in social interaction was not the optimal research design, limitations within the school setting precluded alternate designs. An ABAB design would have been more powerful, but it was not possible or ethical to remove the impact of the co-enrollment treatment once it was implemented and return to a baseline phase. We considered a multiple baseline design across subjects or settings but rejected this possibility because it was not possible to gradually introduce the co-enrollment treatment to selected groups of students within the intermediate classroom and maintain the integrity of the setting. Although two other classrooms enrolled d/hh students, the limited number of d/hh students in these classrooms precluded their inclusion as additional intervention settings. The impact of the co-enrollment intervention on the social interaction of d/hh and hearing students was supported by the replication of results across five students who utilized varying means of communication. The limited number of baseline points collected in the school lunchroom fails to provide a strong baseline for the generalization setting, but the increase in interaction suggests that over the course of the first year, d/hh students began to interact with their hearing peers within a setting in which no adults encouraged such interaction.

Academic data obtained on the Stanford Achievement Test indicate that the reading comprehension scores of the d/hh students were above those of the d/hh normative sample during both the second and third years of the program. Obtaining significant results within an area that is traditionally weak for d/hh students, and with scores based on grade-level tests when most of the students within the normative sample completed below grade level tests, speaks highly of the co-enrollment model. Although it is encouraging to see these results, the students in the co-enrollment program did not perform significantly above the d/hh normative group in other academic areas. Because the available normative data for d/hh students is skewed by below grade-level test data, it would be useful to generate grade-level normative data on d/hh students who complete the Stanford Achievement Test so that a more accurate comparison could be made between a normative group and students in programs such as this one.

The students in the co-enrollment program performed significantly below the hearing normative sample in three of the four Stanford subtests during the second year of the study. Significant differences were obtained in only one of four subtests during the third year of the program. Although it would be tempting to consider the lack of significant differences during the third year as noteworthy, these results likely reflect the limited number of students for whom data were available rather than comparative academic performance. It will be important to continue monitoring academic achievement through both formal and informal means to determine the manner of instruction that will allow the d/hh students to draw increasingly closer to the academic performance of their hearing peers in all academic areas.

The implementation of a co-enrollment model presents challenges that extend beyond the specific educational strategies used within the classroom. When the co-enrollment teachers and principal were asked to identify the primary challenges faced during the implementation of this model, their comments focused primarily on the creation and development of a teaching team. They said that finding two teachers with compatible teaching philosophies and personalities who share a vision of educating d/hh and regular education

students together is an immediate challenge. Both the principal and teachers felt that one strategy that facilitated this process was allowing teachers, rather than administrators, to create their own teams. After his year-long study of two co-enrollment classrooms, Luckner (1999) reached a similar conclusion and recommended that “coteaching relationships generally work best when they are voluntary rather than mandated” (p. 33).

The co-enrollment teachers felt that both team members must be willing to learn new skills and accept the reality that it will take some time to develop these skills. The teacher of the deaf commented that while it is obvious that regular education teachers need to learn sign language, how to utilize amplification devices, and how to expand use of visual instructional strategies, teachers of the deaf often need to expand knowledge of teaching strategies in multiple curricular areas if they are to effectively address the broad age and functioning range of regular education students. These teachers also need to develop behavior management strategies for classes composed of 25–30 students. Although the teacher of the deaf found her professional preparation helpful, she noted that to teach effectively within the regular education classroom, she found it essential to release assumptions that deaf students should be taught in small groups, that they needed simplified texts, that they could not keep up with their hearing peers academically, and that hearing students would be bored with the pace of simultaneously signed and spoken instruction. The academic growth of the deaf students as well as the benefits of increased wait time and decreased teacher talk rate for hearing students convinced both teachers that high academic expectations combined with sound educational strategies benefitted all students.

Educating d/hh students within a regular education program has multiple benefits, but one of the disadvantages of this setting is the lack of Deaf adult role models. Although this Tucson school initiated a co-enrollment program without the benefit of any deaf teachers or staff, several Deaf individuals had joined the school staff by the fourth year of the program. A Deaf instructor conducted sign language classes for students, a hard-of-hearing individual operated the school computer laboratory, and a Deaf volunteer

regularly participated in the primary classroom. The number of teachers and support staff who sign also increased over the years. Although pleased with these changes, teachers continue to explore how to best help deaf students develop competence in ASL and gain knowledge and appreciation of Deaf culture. A primary goal of this co-enrollment program is to increase involvement of Deaf individuals in the school. School personnel continue to recruit Deaf individuals for instructional and support positions and encourage volunteers to visit the school and spend time within classrooms so that all students can interact with native ASL users.

Not all classrooms at this school include d/hh students, and some teachers have felt that teachers in the co-enrollment classes have a reduced work load since two teachers and an instructional assistant work with the same number of students that they teach alone. The co-enrollment teachers remarked that this perception can result in "distance" between those teachers involved in co-enrollment classrooms and those who are not. This "separation" can be exacerbated by the extensive planning time required of the co-enrollment team as these teachers may spend every minute without students planning with one another. Although shared planning was viewed as essential to the success of the co-enrollment, the teachers noted that when team members are absent frequently from the teachers' lounge or other social/discussion situations during the school day, they miss opportunities to interact with other teachers and may be viewed as elitist. To create "whole school" support of inclusion, the co-enrollment team felt that teachers must carefully balance team planning time with time spent interacting with colleagues to promote sharing of ideas and concerns. Educating colleagues about the co-enrollment process and inviting them to participate directly through classroom teaching exchanges, as well sign language classes for which they receive continuing education credit, were proposed as ways to build connections to the program.

Conclusion

Although still in the process of development, data from the first three years of this co-enrollment program in

Tucson, Arizona, suggest that this model offers a promising alternative educational program for students with hearing losses. Deaf and hard-of-hearing students are addressing grade-level curriculum, hearing students are learning sign language thereby expanding their peer circle and providing d/hh students with conversational partners, the regular education teacher is steadily improving her sign language competency, and the teacher of the deaf has expanded her instructional strategies and raised her expectations concerning the academic potential of her students.

Conversations with participants in the co-enrollment program indicate that multiple challenges must be addressed when implementing this model—challenges not overcome quickly or through highly directive administrative decisions. The co-enrollment program requires a strong commitment to inclusive education and a high degree of collaboration between administrators, teachers, support personnel, parents, and students. Future investigations at this school should focus on the evolution of the co-enrollment model and the long-term impact on those individuals directly involved in this program and on those in the larger educational community who provide educational programs for deaf and hard-of-hearing students.

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**Science Education for Deaf Students: Priorities for Research and Instructional
Development**

Harry G, Lang
Department of Research and Teacher Education
National Technical Institute for the Deaf
Rochester Institute of Technology
96 Lomb Memorial Drive
Rochester, NY 14623-5604
Email: harrylang@rit.edu

Introduction

Over the past 30 years, the priorities for research and instructional development in the field of science education for deaf learners have been periodically identified and updated. Lang, Sachs, and Egelston-Dodd (1983) described the needs for improved teacher preparation, enhanced media and other instructional materials, a systematic assessment of technical sign language, and for embedded reading, writing, and thinking skills, as well as career development in science classes. A decade later, at a national Working Conference on Science for Persons With Disabilities, Lang (1994a) reiterated these priorities and called for a national team of experts to address them. Unfortunately, these needs have not been adequately addressed, mostly because there are limited resources and expertise in the field of teaching science to students with low-incidence disabilities such as those who are deaf.

Lang (2002) addressed research priorities specifically on the postsecondary level. There are more than 30,000 deaf students in postsecondary programs today, and fewer than 30 percent, on average, complete their programs of study. One major reason for this dismal record is the failure of professionals to provide quality science education in K-12 programs.

In the present paper, I will address the four priority areas established by the Regional Alliance for Science, Engineering and Mathematics (RASEM): 1) curriculum and instructional methodologies that reflect student diversity, 2) access to and instructional capacity for on-line or distance education coursework, 3) adaptive or assistive technologies, and 4) timely dissemination of existing practices and on-going research.

1) Curriculum and Instructional Methodologies

In the field of science education for deaf students, there is a growing body of knowledge about “best practices” based on educational and psychological research. Lang (2005) summarized more than 30 research studies with deaf students in science. Some of these studies have specifically addressed instructional strategies, while others originally set out to examine such topics as multimedia and the use of adjunct questions in instructional prose. In general, the research findings have shown strong support for the argument that the most efficacious instructional strategies are those that cognitively engage deaf students.

Deaf science students generally have similar perceptions as do hearing students with regard to the characteristics of effective teachers, especially valuing content knowledge and the ability to offer clear explanations. Deaf students, however, understandably value teachers who understand deafness and deaf people, and who respect diversity and can use sign language clearly.

While the best practices derived from this literature review are similar to those reported in the large body of literature for hearing students in science education, it should be emphasized that deaf students primarily learn through the sense of vision, and it is not surprising to learn that this review also revealed that multimedia approaches enhance factual recall as compared to traditional lecture formats. The combined effects of clear signing, use of media, structured lesson material, and, especially, the involvement of deaf students through the use of adjunct questions throughout the lessons have been found particularly important in terms of performance on post-tests.

One of the most profound social movements of the past three decades has been induced by the federal mandates to mainstream students with disabilities. “Inclusion” efforts have

resulted in a wider diversity of students in the public school classrooms. A large majority of deaf students are now receiving their education in mainstream environments. On one hand, educational researchers have stressed that deaf learners should not be viewed simply as hearing students who cannot hear (Marschark, Lang, and Albertini, 2002). Deaf students demonstrate many unique learning characteristics and a teacher in any environment should make an effort to understand deafness as an educational condition. On the other hand, many dedicated teachers are enthusiastic about teaching deaf students, but they lack effective guidance, preparation, and resources based on sound educational research.

Training in the use of best practices with deaf learners is one of the most serious challenges to the provision of quality science education to deaf students on the K-12 level. The lack of teacher content knowledge is another. The problem of under-qualified, unprepared teachers is a serious one in both public schools and special education programs. This is, of course, also true for the science education of hearing students. Many teachers have either not met minimum requirements established by their states, or have acquired basic credentials but are not receiving the support they need to grow-in their profession (National Science Teachers Association, 2000).

In addressing this issue of teacher content knowledge in public education for hearing students, Ingersoll (1999) writes that the effects of being taught by a teacher without a strong background in a field may be just the kind of outcome not captured in student scores on standardized examinations. Teachers who are not well trained in science content also often resort to lectures over which they have more control. Like their hearing peers, deaf adolescents have identified content knowledge as one of the most important characteristics of an effective teacher (Lang, McKee, & Conner, 1993). Thus, a teacher should make every effort to be well prepared in the content area. This will increase the effectiveness of activity-based learning strategies and will lead to teachers being continuously ready to answer questions.

Cognitive Engagement of the Deaf Learner in Science

Both educational research and narrative reports from experienced science teachers generally point to the definition of "best practices" as those which are student centered and emphasize active involvement. The notion of "active involvement" underlying best practices in the science education of deaf students includes such key terms as "hands-on learning," "participation," "interactive learning," "experiential learning," "inquiry learning," and "discovery learning." Best practices that stress "minds on" activities, however, are likely to have a better impact on learning than those encouraging "hands on" manipulation of materials in the science classroom.

Cognitive engagement of deaf learners is dependent on many factors. In mainstream classes, deaf students often find it difficult to interact effectively with hearing peers and the instructor, and to participate on an equitable basis in classroom activities (Lang, 2002). Factors inhibiting full participation include pace (rate of presentation by instructor), the number of speakers involved, language and cultural difference, and the use of space (physical arrangements in the classroom). Communication methods may also influence participation. Some students may be more readily engaged when an instructor uses sign language as compared to presenting by voice only with a sign language interpreter translating the information (see Lang, 2002). When interpreters are not available, not familiar with the content, not visible from where the student is sitting, or not using a mode of signing that is similar to the student's, participation may also be impeded (Foster, Long, & Snell, 1999).

Careful Sequencing of Topics: Organization and Structure

Studies of learning styles indicate that deaf adolescents are highly “dependent” learners, which means that they rely heavily on organization and structure in the instructional environment (Lang, Stinson, Basile, Kavanaugh, & Liu, 1998). Similar findings have been reported by Grasha (1996) for hearing students. In these studies, “dependent learners” are defined as those who look to authority figures for guidelines on what to do. They find it difficult to develop skills for autonomy and self-direction. Such students may benefit from various forms of graphic organizers and other adjunct instructional aids to facilitate comprehension of text. These include, for example, concept maps, “KWL” forms, Venn diagrams, webbing, and “Main Idea” tables.

Self Efficacy

Self-efficacy is the “belief in one's capabilities to organize and execute the sources of action required to manage prospective situations” (Bandura, 1986). According to Bandura, how strongly people believe in their abilities to accomplish a task is one of the strongest influences upon the end result. A student with little confidence may very well not succeed due to a lack of belief, whereas one who is more confident has an increased chance of success. The amount of confidence a person has can be adversely affected by anxiety and tension.

Another factor that strongly influences a person's confidence in his/her abilities is motivation. A person who is highly motivated to complete a task will be more likely to have a higher level of confidence in the end result. Motivation can also affect the amount of “observational learning” a person will experience. People tend to adapt strategies employed by others if they see that the end result is desirable. It is for this reason that Bandura suggests that rewards are not a consequence for behavior. Instead, they are an antecedent. It is the expected reward at the end of a task that will influence a person's motivation.

Self-knowledge pertaining to appraisal of personal competence has been referred to as “self-esteem.” (Stinson, 1994). Self-esteem is associated with academic success for both normally hearing and deaf students. Joiner, Erickson, & Crittenden (1966), for example, found that deaf students in a residential high school with relatively high self-esteem tended to have high grade-point averages. Koelle and Convey (1982), studying a similar population, found that self-esteem was positively related to performance on the Stanford Achievement Test for Hearing-Impaired Students.

There are many ways to approach the development of positive self esteem in the science classroom. Deaf students seldom have the chance to meet successful deaf scientists, or even deaf science teachers, as models. Although no research studies have been found with deaf role models, investigations with other culturally diverse students (African Americans, Hispanics, Native Americans, etc.) have shown that culturally familiar role models, both in person and as role models in printed materials or textbooks, constitute an important variable that impacts the cognitive learning (Shade, 1982). Other reports have described that the presence of culturally familiar role models in textual materials increases students' self esteem, concept acquisition, and motivation to pursue science careers (Healy, 1990).

The science teacher has numerous resources now available, which provide detailed information about the outstanding contributions of deaf women and men in various fields of science. These include, for example, *Silence of the Spheres: The Deaf Experience in the History of Science* (Lang, 1994b), and *Deaf Persons in the Arts and Sciences: A Biographical Dictionary* (Lang & Meath-Lang, 1995). Strategies for infusing information about deaf scientists in the

science classroom are highly recommended. In general, deaf students do not receive adequate career education in high school, in particular. This, and academic preparation, are significant reasons why many deaf students do not complete their courses of study in college (Stinson & Walter, 1997).

2) *On-line/Distance Education*

Several controlled research studies with deaf students in science have emphasized the features of cognitive engagement, addressing reading comprehension, and the use of graphic organizers, and have shown promising results. In one multimedia research study with 144 deaf students, Dowaliby and Lang (1999) examined the influence of four types of adjunct instructional aids on immediate factual recall of science content in a series of 11 lessons about the human eye. Students were grouped by standardized test scores as low, middle, and high ability readers. They were also assigned to conditions which included 1) reading text plus viewing "content movies" (animation), 2) text plus sign language translations of the text, 3) text plus answering adjunct questions about the text, and 4) all conditions together (text, sign language translations, animations, and adjunct questions). Immediate factual recall for low-reading-ability students was significantly improved through the use of adjunct questions. The sign language translation movies and animations also resulted in increases in factual recall, however, the increases were not statistically significant. The improved recall was likely the result of the cognitively engaging nature of the adjunct questions.

Three research studies conducted by Donald Steely at the Oregon Center for Applied Science have supported this notion of student engagement as compared to traditional lectures. Science learning by deaf middle school and high school students was greatly enhanced through the combined use of graphics, questions, text, and other features (Lang & Steely, 2003). His studies included non-web-based earth science and physical science and web-based chemistry focusing on explicitly teaching underlying networks of concepts. Kameenui and Carnine (1998) have referred to these underlying conceptual networks as the "big ideas" for organizing facts and knowledge and simultaneously emphasizing higher-order thinking. The efficacy of this approach with hearing students has also been supported by numerous studies (Moore & Carnine, 1989; Woodward & Noell, 1991).

An example of a "big idea" in earth science is convection, which explains the movement of heat in the earth, in the oceans, and in the atmosphere. In physical science, a "big idea" is that energy can change between different forms (electrical, chemical, mechanical, heat, etc.) without being destroyed. By understanding the "big ideas", students are able to organize facts and concepts into a larger meaningful whole. The science teacher can use these "big ideas" to relate information found in the long lists of benchmarks. Students should learn to use them to solve problems and integrate new knowledge. Both the National Science Education Standards and the American Association for the Advancement of Science national standards encourage such use of underlying concepts. Science teachers should be thoroughly familiar with their school's standards, which most often are derived from the national projects.

Importantly, the results of the empirical research study conducted at the National Technical Institute for the Deaf (Dowaliby and Lang, 1999) and the three conducted at the Oregon Center for Applied Science (Lang & Steely, 2003) indicate that the interactive approach with on-line course material yielded significantly greater knowledge gains for deaf students as compared to traditional classroom experiences.

Today, instructional technologies are popular in teaching science to deaf students. High-speed connections are changing the capability of carrying large amounts of text, voice, and video data over existing telephone and cable lines. Contemporary curriculum projects have shown great promise with deaf learners. An example of this type of project is *The Classroom of the Sea*, a National Science Foundation sponsored grant project. Its collaborators included a team from the National Undersea Research Center for the North Atlantic and Great Lakes, University of Connecticut, American School for the Deaf in Hartford, and the National Technical Institute for the Deaf at Rochester Institute of Technology. To develop a means for communicating in sign language with high quality transmissions over the Internet, a digital video camera was used with the deaf students on a boat, the RV Connecticut, on the Atlantic during a water sampling activity. This signal was fed into the RV Connecticut's network and then transmitted from the vessel to the antenna on the Marine Sciences building on shore five miles from the ship at sea into the building's Local Area Network (LAN). From there the signal was sent to a server which transcoded the signal to Windows Media. This was the streaming format for viewing the web video by deaf students in various school programs around the country. The sign language over the Internet was of sufficient quality to continue planning for two-way transmissions on an ongoing basis. Experiments with classroom lectures, including the use of Power Point slides, using this system were also successful. This allowed the team of scientists and educators in four different locations to interact during various science learning excursions with deaf students (Lang, Babb, Scheifele, Brown, LaPorta-Hupper, Monte, Johnson, & Zheng 2002).

Various features of Web-based distance learning may make information inaccessible to deaf learners and thus may impact their learning and motivation. These range from a lack of visual text alternatives for audio information to the use of certain sentence structures which have been found to be especially difficult for deaf readers. When chat rooms, e-mail exchanges with instructors, and other forms of on-line written communication are employed, deaf students, by virtue of their language difficulties, may be reluctant to participate. The same can be said with regard to interactive learning contexts in distance education, where communication and self-esteem factors may influence their participation, and thus access, to information.

Reading comprehension ability is a critical factor influencing both access and participation for deaf students in on-line science learning opportunities. The lags of deaf students relative to their hearing peers tend to increase through the school years. By the time deaf students are 18 to 19 years of age, their measured reading ability is generally no better than the average 8- or 9-year-old, normally-hearing student. Many deaf students experience complications in their development of knowledge and skills due to inadequate functional literacy levels for reading and writing (Marschark, Lang, & Albertini, 2002). Thus, science teachers must take reading comprehension into consideration in all aspects of instruction, especially in the use of textbooks and multimedia.

3) Adaptive/Assistive Technologies

There are many forms of technology that have potential for the instruction of deaf learners in science, including computers, calculators, captions, virtual dissection, virtual reality, assistive technologies, use of the World Wide Web, software for drill-and-practice, telecommunications, visualizers, and other developments. The general issues discussed in this paper, however, apply to their use as much as they do to direct instruction by teachers. In particular, technologies that include "considerate" text and engage the students cognitively will be more effective than those which focus on passive viewing.

Captions, or the presentation of text-based translations of audio messages, is a primary assistive technology used with deaf learners in the classroom today. These may be in the form of pre-captioned materials or real-time captioning where a stenographer listens to the lecture and types the translations, which are displayed on a laptop screen or other monitor for deaf learners to read. Automatic Speech Recognition (ASR), which involves the captionist whispering into a microphone and the message automatically being translated and displayed, has also found to be technologically feasible.

Captions of science films, television shows, or classroom lectures, however, may not be enough to provide meaningful access to information for deaf learners, even when the captions are edited. Importantly, the reading level of captioned materials should be on a level commensurate with that of the students. In one study, two versions of a technical film, captioned at approximately 8th- and 11th-grade reading levels, were shown to 32 deaf college students (Hertzog, Stinson & Keiffer, 1989). Fifteen of these students also received supplementary instruction from a teacher. Data from a comprehension test were analyzed to determine effects of instruction, level of captioning, test type (recall or recognition), and subject reading ability. While both high and low reading groups benefited from instruction when students viewed 8th-grade level, modified captions, only the high reading group benefited from instruction when they viewed the 11th-grade level, original captions.

The implications are that science education text materials should generally be “considerate” with regard to the deaf students’ ability to comprehend the material, thus accommodating the reading difficulties these students demonstrate. Vocabulary practice should be included before students begin the lesson. The language of science should not be “watered down” excessively, however. Ideally, a science teacher should provide progressively challenging language structures in all reading materials, so that both science literacy and English literacy are developed.

4) Dissemination

It is critically important that deaf people be empowered to access and utilize distance learning and related technologies on the same schedule and time table as the rest of society. It is also clear that Web-based and other asynchronous forms of distance learning will be a part of the future of deaf people and that they should have full access to resources for education and employment. Technology advancements are rapidly making delivery of a wide variety of instructional materials available to students through the World Wide Web.

In addition to the research studies cited in this paper, there are currently several resources which provide significant information to educators interested in enhancing science (and mathematics) education to deaf students. The Clearinghouse On Mathematics, Engineering, Technology and Science (COMETS) website, an information dissemination project funded by the National Science Foundation to enhance science, technology, engineering, and mathematics education for deaf and hearing students. This website (at <http://www.rit.edu/~comets/>) provides many resources, including informational pages on a variety of topics, which can be used individually by teachers, in pre-service teacher education courses as lessons, or as workshops for in-service professional development programs to help teachers interested in renewing certification.

The Deafed.net (at <http://deafed.net/>) site is a result of two projects funded by the U.S. Department of Education's PT3 initiative. These grants, awarded to the Association of College Educators of the Deaf and Hard of Hearing (ACE-DHH) are referred to as *Join Together* and

Catalyst. Deafed.net also includes summaries of “best practices” based on research. New materials, including Power Point slide shows with detailed emphases for science (and mathematics) teachers, are being developed and disseminated to an audience of more than 18,000 subscribers.

Science, Technology, Engineering, and Mathematics (STEM) education stands to benefit greatly from developing a new generation of teaching/learning materials that are founded on the interactive, visual, and individualized instructional dimensions of emerging Web-based technologies. Adaptation of systems to make them accessible to sub-populations is consistent with doing better science and better dissemination of science research and results.

There are many benefits that may accrue from a stronger program of research and development. The primary impact would be its effect on the delivery and use of information in K-12 and post secondary STEM courses, implementation of interactive technologies, development of Web-based instructional material, evaluation of strategies for accomplishing national science and mathematics standards, and provision of guidance to students who are deaf, their teachers, parents and school administrators. Moreover, the new knowledge obtained from empirical research studies will lead to the development of guidelines for media developers and educators.

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An Overview of Direct Instruction

by [Nancy E. Marchand-Martella](#) and [Ronald C. Martella](#) and [Kristy Ausdemore](#)

The landmark legislation known as IDEA (Individuals with Disabilities Education Act, reauthorized in 1997 and amended again in 2004) requires "specially-designed" instruction for students with disabilities to meet their unique needs at no cost to the parents. Specially-designed instruction pertains to adapting content, methodology, or delivery of instruction to meet students' needs and to ensure their access to the general curriculum.

IDEA 2004 includes an increased focus on the use of scientifically-based instructional programs for use with students with disabilities. Scientifically based refers to using instructional procedures that are consistent with what is known scientifically to be effective. Interestingly, special rule for eligibility determination was made noting that students cannot be qualified for special education services if they lack appropriate instruction in reading or mathematics. Further, local educational agencies may use a process that determines if students respond to scientific, research-based interventions as part of the evaluation procedures for determination of a specific learning disability. This focus on research-based intervention ensures that students are qualified for special education services for the "right" reasons, not because they failed to receive adequate instruction.

One scientifically-based instructional program shown to be effective with special education populations is Direct Instruction. Direct Instruction programs are considered scientifically-based but, more importantly, are scientifically validated in that they have been shown to work through rigorous scientific experimentation.

What is Direct Instruction?

Direct Instruction (DI) is an explicit, scientifically-based model of effective instruction developed by Siegfried Engelmann in the 1960's. DI can be distinguished from other models of explicit instruction (such as direct instruction—di) by its focus on curriculum design and effective instructional delivery. Commercial DI curricular programs are typically published by Science Research Associates (SRA) (see www.sra4kids.com for a list of DI programs and www.adihome.org for further details on DI).

Guiding principles of DI include every child can learn if we teach him or her carefully and all teachers can be successful when given effective programs and instructional delivery techniques. Thus, ultimately it is the teacher who is responsible for student learning; students are not blamed for their failure to learn. One often hears the statement, "If the learner hasn't learned, the teacher has not taught" in reference to DI programs and instructional delivery (see Tarver, 1999 for further details).

The goal of DI is to "do more in less time"—accelerating student learning by carefully controlling the features of curriculum design and instructional delivery. There are three main components to the design and delivery of DI programs. These include: (a) program design, (b) organization of instruction, and (c) teacher/student interactions (see Marchand-Martella, Slocum, & Martella, 2004 for further details).

Program design relates to (a) careful content analysis that promotes generalization (teaching the "big ideas" of instruction); (b) clear communication (the "wording of instruction" as well as how instruction is sequenced and examples are introduced); (c) clear instructional formats (specifies what teachers are to do/say and what responses students should produce); (d) sequencing of skills (prerequisites are taught before a strategy is taught; easy skills are taught before more difficult skills; strategies/information likely to be confused are separated; instances consistent with a rule are taught before exceptions); and (e) track organization (activity sequences are targeted that teach skills over multiple lessons to ensure firm responding).

Organization of instruction centers on (a) instructional grouping (using flexible skill grouping as compared to "tracking"); (b) instructional time (increasing academic learning time—the time students are engaged with high success rates); and (c) continuous assessment (providing ongoing in-program assessments to inform instructional practice).

Teacher-student interactions include (a) active student participation (increasing opportunities

for students to respond and receive feedback); (b) unison responding (increasing students' responding by having them chorally respond); (c) signals (providing a cue to evoke unison oral responses); (d) pacing (promoting active student engagement with brisk teacher pacing); (e) teaching to mastery (ensuring firm responding over time); (f) error corrections (minimizing student errors by carefully sequencing instruction; when errors do occur, using careful error correction procedures—model, lead, test, retest); and (g) motivation (enhancing motivation through high levels of student success).

DI includes programs in reading (Corrective Reading, Reading Mastery, Reading Mastery Plus, Horizons, Funnix, Teach Your Child to Read in 100 Easy Lessons, and Journeys), mathematics (Connecting Math Concepts, DISTAR Arithmetic, Corrective Mathematics, as well as various videodisc and videotape programs), writing (Basic Writing Skills, Expressive Writing, Reasoning and Writing, and Cursive Writing), spelling (Spelling Through Morphographs, Spelling Mastery, and Surefire Way to Better Spelling), language (Language for Learning, Language for Thinking, and Language for Writing), and content areas including history (Understanding U.S. History), chemistry/earth science/life sciences (videodisc/videotape programs), and science facts (Your World of Facts).

Example Direct Instruction Lesson

A typical DI lesson includes explicit and carefully sequenced instruction provided by the teacher (model) along with frequent opportunities for students to practice their skills (independent practice) over time (review). For example, if the sound /m/ appeared for the first time, the teacher might say, "You're going to learn a new sound. My turn to say it. When I move under the letter, I'll say the sound. I'll keep on saying it as long as I touch under it. Get ready. mmm" (model). "My turn again. Get ready. mmm" (model). "Your turn. When I move under the letter, you say the sound. Keep on saying it as long as I touch under it. Get ready." (independent practice). "Again. Get ready." (independent practice). If an error occurs during instruction, the teacher would model the sound ("My turn. mmm"), use guided practice ("Say it with me. Get ready. mmm"), and have students practice independently ("Your turn. Get ready"). A "starting over" would be conducted based on this error; this might include starting over at the top of a column or row of sounds so that students get increased practice on the /m/ sound. The /m/ would appear throughout the lesson and in subsequent lessons to ensure skill mastery (firm responding) over time (see Reading Mastery Plus Series Guide, 2002, for further details).

Research on Direct Instruction

"More than any other commercially available instructional programs, Direct Instruction is supported by research" (Watkins & Slocum, 2004, p. 57). Several independent reviews of research add to this strong support with particular focus on students with special needs (Carnine, Silbert, Kame'enui, & Tarver, 2004). For example, White (1988) found 25 investigations where Direct Instruction was compared to some other treatment. Not one of the 25 studies showed results favoring the comparison groups; 53% of the outcomes significantly favored DI with an average effect size of .84 (considered a large magnitude of change from pre to post assessments). Further, Adams and Engelmann (1996) analyzed 37 research studies involving DI programs compared to other treatments. When those studies involving special education students (n = 21) were analyzed separately, the mean effect size was .90 (considered a large magnitude of change from pre to post assessments). Finally, Forness, Kavale, Blum, and Lloyd (1997) conducted an analysis of various intervention programs for students receiving special education services and found DI to be one of only seven interventions with strong evidence of success.

Positive effects with at-risk populations have been noted by the American Federation of Teachers (1999), American Institutes of Research (Herman et al., 1999), and the Center for Research on the Education of Students Placed at Risk (Borman, Hewes, Overman, & Brown, 2002). DI offers sufficient validation as noted by Fuchs (1996) to warrant its use with special education populations. Thus, it is no surprise that DI is often referred to as a program for special education or at-risk students. This research base aligns with requirements in the newly amended IDEA 2004 on research-based programs. It is important to note, however that Direct Instruction programs are appropriate for talented and gifted students, grade level students, and those with diverse language backgrounds or "learning styles" (Watkins & Slocum, 2004).

Most academic programs require modifications to meet the needs of students who receive special education services (Carnine et al., 2004). These modifications include:

- identifying the most important tasks to teach so that priority topics are covered;
- providing clear directions on how to structure active student responding and teacher feedback;
- determining where students should be placed and how to monitor their progress once they receive instruction;
- adjusting the rate of instruction to ensure adequate practice and mastery; and
- controlling the vocabulary/syntax used to ensure student understanding.

These modifications take teacher time and energy to complete; essentially, teachers have to become curriculum designers—changing programs to meet the unique needs of students who struggle in school. In contrast, DI programs are uniquely designed to promote success for these students the first time—they do not require teacher modification to achieve student success. By their very nature, DI programs meet the needs of students who struggle academically.

Summary

The goal of special education is to educate students so they can reach their full potential. In order to achieve this goal, effective instructional programs must be used. Such programs should be at least scientifically based (i.e., consistent with what is known scientifically to be effective in teaching reading). DI programs go beyond this scientifically-based requirement. DI programs are scientifically validated by over 30 years of research. Therefore, programs such as DI should be used with students who have special needs.

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About the authors



Drs. Nancy Marchand-Martella and Ronald Martella are professors in the Department of Counseling, Educational, and Developmental Psychology (CEDP) <http://www.ewu.edu/x3360.xml> at Eastern Washington University. Both teach in the graduate program in special education. Dr. Marchand-Martella's research interest is in the area of effective instruction for students with disabilities with particular emphasis in reading. Dr. Martella's research interest is in behavior management for students with disabilities and schoolwide behavior support systems. You can reach them at the Department of CEDP, Martin Hall 135, Eastern Washington University, Cheney WA 99004 or email them at nmartella@ewu.edu and rmartella@ewu.edu.



Kristy Ausdemore is a graduate student in special education at Eastern Washington University. Her specific academic interest is in effective instructional techniques for students with severe disabilities. You can reach her at ausdemore@hotmail.com.

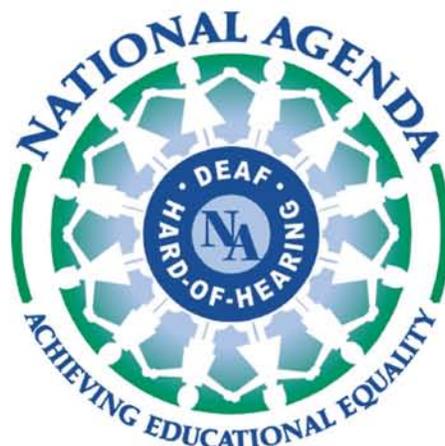
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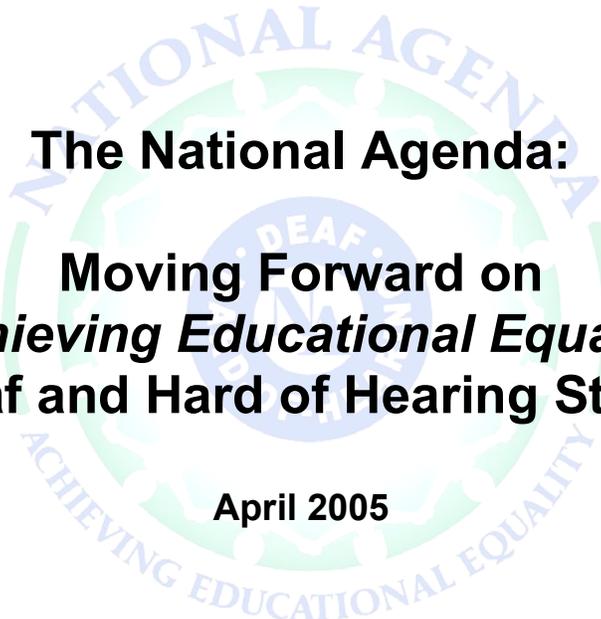
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The National Agenda: Moving Forward on Achieving Educational Equality for Deaf and Hard of Hearing Students





The National Agenda:

**Moving Forward on
Achieving Educational Equality
for Deaf and Hard of Hearing Students**

April 2005

Table of Contents

Acknowledgments	ii
Foreword	iv
Preamble	8
Introduction.....	12
Goal One: Early Identification and Intervention.....	15
Goal Two: Communication, Language and Literacy.....	19
Goal Three: Collaborative Partnerships.....	23
Goal Four: Accountability, High Stakes Testing and Standards Based Environments.....	25
Goal Five: Placement and Programs	29
Goal Six: Technology	32
Goal Seven: Professional Standards and Personnel Preparation.....	34
Goal Eight: Research	37
Appendices	
Model Federal Law	41





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Among those we owe thanks to are the members and staff of the Commission on the Education of the Deaf (COED) which published "Toward Equality in Education of the Deaf" in 1988 and the Steering Committee, staff of the National Association of State Directors of Special Education (NASDSE), the US Department of Education, Office of Special Education and Rehabilitative Services and the ten organizations that developed the "Deaf Education Guidelines". Our initial work was largely based on these recommendations.

We are also indebted to our colleagues in the Education of Blind and Visually Impaired for the inspiration provided by their National Agenda efforts. We were in search of a "call to action" that would unite us around critical goals aimed at eliminating the under-achievement of students who are deaf and hard of hearing. We recognized that there was no simple solution to the problem; however, we also recognized that we continued to lose ground as we separated ourselves from one another by philosophical, placement, communication and service delivery biases.

Our early work was made possible by the support of Arizona School for the Deaf and Blind with Ken Randall's leadership.

A special thanks goes to Harold Johnson and the staff at www.deafed.net for posting our draft document for public comment and organizing the comments from our stakeholders.

We also thank NASDSE for inviting us to make a presentation regarding the National Agenda to their Board of Directors (October 2004) and the strong encouragement we received following that presentation.

We want the National Agenda to significantly improve educational services for deaf and hard of hearing students by providing communication-driven educational programming that meets high academic standards and supports the social and emotional development of learners. Issues that have previously divided us are presented in the National Agenda from the perspective of achieving full access in language-rich environments.

This document is a work in progress. Far more important than the words on these pages will be the creative energy that states, programs, families, schools and professionals will assemble to implement the goals of the National Agenda.

Special thanks go to our original Steering Committee for their direction, persistence and commitment to this project when it seemed an impossible dream. We also thank our many Advisory Members and Goal writers representing organizations in CED and state departments of education. Listed on the following page, are the participating organizations and the individual steering and advisory committee members.

A special thanks to David Martin for serving as our editor and to the Texas School for the Deaf for their support in printing and graphics design for the National Agenda.

Steering Committee Members

Ms. Claire Bugen, Superintendent, Texas School for the Deaf

Dr. Jay Innes, Director, Gallaudet Leadership Institute

Mr. Dennis Russell, Superintendent, New Jersey School for the Deaf

Mr. Lawrence Siegel, Attorney, National Deaf Education Project

Advisory Committee Members

Alexander Graham Bell Association of the Deaf, Inc. (AGBAD)
Donna Sorkin, Kathleen Treni and Todd Houston

Association of College Educators-Deaf and Hard of Hearing (ACE-DHH)
Rich Lytle, Karen Dilka and Margaret Finnegan

American Society for Deaf Children (ASDC)
Cheron Mayhall, Natalie Long and Barbara Raimondo

Conference of Educational Administrators of Schools and Programs for the Deaf (CEASD)
Ed Corbett, Harold Mowl and Joe Finnegan,

Convention of American Instructors of the Deaf (CAID)
Carl Kirschner, Liz O'Brien and Robert Hill

CEC-Division of Communication Disorders
Carmel Yeager

State Departments of Education and Local Education Agencies
Marsha Gunderson, Iowa and Carol Schweitzer, Wisconsin

National Association of the Deaf (NAD)
Nancy Bloch, Kelby Brick and Roz Rosen



Foreword

The National Agenda for Moving Forward on Achieving Educational Equality for Deaf and Hard of Hearing Students brings forward a set of priorities stated as goals that are designed to bring about significant improvement in quality and nature of educational services and programs for deaf and hard of hearing students. It is brought forward as an “agenda” or a list of things to be done in order to close the achievement gap that exists for our students. It was our belief that having an “agenda” would keep us focused on our priorities. Key to all the recommendations is the belief that communication access is a fundamental human right and that every deaf and hard of hearing child must have full access to all educational services.

The National Agenda is a unique document because it represents a collaboration of parents, professionals, and consumers working as equal partners to achieve a common vision. No single individual or school or organization created the National Agenda. The National Agenda Advisory Group received thousands of comments and suggestions during the period of public input and each had a voice in the development of the National Agenda.

The National Agenda is organized around eight goals—each with a goal area, a goal statement, background information about the goal and a series of objectives to achieve the goal. For each objective there is a rationale for its selection. It’s time to move the National Agenda off the printed page and into the hands of local schools, agencies, special schools and organizations to begin to make changes that will effect the individual children and their families in this country. With enthusiastic leadership and collaborative efforts at the federal, state and local level, many of these goals can be translated into action plans and ultimately public policy and accepted practice in education of deaf students.

We hope that those of you who have become discontent with the “status quo” will use the National Agenda to finally and fundamentally improve educational programming for students who are deaf and hard of hearing.



Preamble to the National Agenda

“Never doubt that a small, group of thoughtful,
committed citizens can change the world.
Indeed, it is the only thing that ever has.”

Margaret Mead

“So runs my dreams, but what am I?
An infant crying in the night
An infant crying for the light
And with no language but a cry.”

Alfred Lord Tennyson

In Tulsa (OK), Salem (OR), New York City, Sioux Falls (SD), and cities and towns throughout this nation, a deaf or hard of hearing child sits in a classroom, full of promise, energy, and intelligence. This child, like all other children in this nation, hungers to learn, has dreams to pursue, and has the native ability and determination to become a productive adult and participate in our American democracy. This student may be profoundly deaf and use American Sign Language (ASL) as her native language, or he may be hard of hearing and rely exclusively on aural/oral language.

Throughout the nation, families are devoted to these children, who work with them everyday and knock on the doors of every agency and institution for support and information. They, like all families, want their deaf and hard of hearing children to have a fair chance at success and an education that will open rather than close doors.

In addition, teachers, interpreters and administrators have devoted their professional lives to help those children grow emotionally, academically, and linguistically.

Yet, despite the best efforts of these very able children, their families, and professionals, deaf and hard of hearing children perhaps unlike any other children in this nation, continue to struggle academically, as reflected in 3rd grade reading scores, low high school and college graduation rates, alarmingly high rates of un- and – under employment, reliance on governmental assistance, and earning capacities that are 40-60% below those of their hearing counterparts.

These statistics comprise only dry evidence and do not tell of the deaf or hard of hearing child who sits alone in a crowded classroom, is isolated on the teeming playground, and feels the frustration of a languageless education which leads inexorably to an unfulfilled life.

At the heart of both the wonderful potential of these children and the systemic failure to serve them is a fundamental issue of human rights, one that illuminates the truly unique nature of deaf and hard of hearing children: the need and right of these children to develop fully and be exposed to communication and language. Without communication no educational growth and no personal, emotional, and social development are possible. The need and right to communicate must become the foundation of any educational system for deaf and hard of hearing children because it is so "tightly woven into human experience that it is scarcely possible to imagine life" without it.²

Is there a parent in this nation whose hearing child walks into a classroom and wonders whether there will be any other children and teachers to communicate with or any rich, varied, and brilliant language? Will they begin each school year no surer than the last that the doors of the schoolroom are truly open to them?

Would the parents of hearing children in this nation accept an educational system that says it will consider but cannot promise the provision of a reading program, and consider but not mandate an appropriate curriculum, even as laws governing special education require only a "consideration" of communication and language needs?

Why, then, do we have the opposite situation for deaf and hard of hearing children? The answer requires less an apportionment of blame and more an understanding of systemic and philosophical limitations and a clear plan to set our deaf and hard of hearing children free, regardless of the hearing loss or community in which the child flourishes. The basic issues before us have been addressed before. The wisdom of a rich variety of committees, commissions, political bodies, and policy-makers, has been collected, bound, printed, and then put away to gather the dust of time and inaction. The major treatises on the education of deaf and hard of hearing children, --the Babbage Report, the Commission on Education of the Deaf (COED) Report, the U.S. Department Office of Special Education and Rehabilitation Services' (OSERS) "Guidance for Deaf Children," and the National Association of State Directors of Special Education (NASDSE) Guidelines--are all remarkable, and they were respectively, 36, 13, 9 and 7 years old, as of 2004 and have been largely ignored.

The National Agenda, a coalition of consumer, professional, and parent groups calls for a quality and diverse communication and language-driven educational delivery system for deaf and hard of hearing children. We ask for that which all other children in this nation simply take for granted--the right of a deaf or hard of hearing child to develop communication and language, to communicate, to become literate, and therefore to learn. We call for action so that our children start school with communication and language and are therefore ready to learn, and when they graduate, then they are ready to confidently stride into the world.

While the deaf and hard of hearing communities and the special education world in general have debated the meaning and reach of the Individuals with Disabilities Education Act [IDEA] for more than 30 years, it is beyond contention that deaf and hard of hearing children are entitled to a quality, literacy-focused, communication and language-driven educational program. Without such a right and a system, deaf and hard of hearing children will continue to lag seriously behind other children.

America is a pluralistic nation, and the National Agenda embraces diversity, choice, and equality. The rights to become literate, to develop a native language, to communicate, and to use one's language is not to be parceled out to only some deaf and hard of hearing children. Whether they go to school in a residential school, special class, regional program, or regular classroom, can there be any question of their need and claim to a communication-appropriate education? Could anyone deny that these rights are of equal value to the signing child, the oral child, or the child with a cochlear implant? We mean - plainly and without reservation - that all communication modes and languages are to be provided for and respected, whether oral/aural language or manual language, whether American Sign Language or English signing systems, and whether the child has a cochlear implant.

We see our collective mission and insist that communication and language are varied and rich and that a deaf or hard of hearing child's unique learning style, cognitive requirements, and individual communication and language needs must determine programmatic, fiscal, and educational decisions—and not the other way around. We have come together to work for a program that builds collectively on the knowledge, devotion, and expertise of families, educators, and consumers in the deaf and hard of hearing communities.

In that spirit, the National Agenda proposes a series of recommendations to bring our children into the world of learning, communication, and language. We ask of ourselves to unite as a community and work for what is common for all our children. We ask of our national educational system that it finally "listen" to the words of our children and those who know them best. Our nation has, for all its difficulties and conflicts, shown a remarkable and unique ability to do ultimately the right thing – to address and protect the fundamental rights of its citizens. Even if institutional change comes later rather than sooner, it has come. The National Agenda is determined that its recommendations and blueprint for change will not only be fully and powerfully expressed but will be transformed into specific actions leading to positive outcomes for our deaf and hard of hearing children.

Spanning all of the specific goals is the need for a fundamental, systemic change:

- Existing law, policy, and programmatic structures cannot provide that which all deaf and hard of hearing children need. A fundamental shift in the current system is required. Therefore each State Department of Education will implement a communication- and language-driven educational delivery system whereby every deaf and hard of hearing child will be provided with a quality, literacy-focused, communication- and language-rich education, that is consistent with the specific goals of the National Agenda. 3/
- The National Agenda, in addition to its 8 major goal areas, proposes a model federal law that will address the unique needs of deaf and hard of hearing students. 4/

1/ "Statement of Principle," the National Deaf Education Project, 2000, Gallaudet University.

2/ Steven Pinker, [The Language Instinct](#) 1994.

3/ See the National Deaf Education Project's "Statement of Principle," for a detailed description of a communication-driven educational delivery model and the historic reasons such a model is necessary. www.ceasd.org as well as a model federal law are attached to this National Agenda.

4/ A Model Federal Bill for Implementing a Communication-Driven Educational Delivery System:

The National Agenda proposes the following goals for re-making the educational delivery system for deaf and hard of hearing children and thereby freeing them to learn:

1. Early Identification and Intervention.

The Development of Communication, Language, Social, and Cognitive Skills at the earliest possible age is fundamental to subsequent educational growth for deaf and hard of hearing students.

2. Language and Communication Access.

All children who are deaf and hard of hearing deserve a quality communication-driven program that provides education together with a critical mass of communication, age, and cognitive peers, as well as language-proficient teachers and staff who communicate directly in the child's language.

3. Collaborative Partnerships.

Partnerships which will influence education policies and practices to promote quality education for students who are deaf and hard of hearing must be explored.

4. Accountability, High Stakes Testing, and Standards-Based Environments.

Instruction for students who are deaf and hard of hearing must be data-driven and must focus on multiple measures of student performance.

5. Placement, Programs, and Services.

The continuum of placement options must be made available to all students who are deaf and hard of hearing, with the recognition that natural and least restrictive environments are intricately tied to communication and language.

6. Technology.

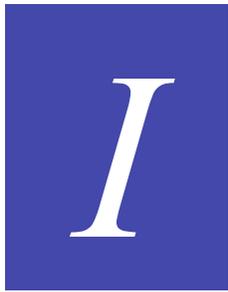
Accommodations, assistive and adaptive technologies, and emerging technologies must be maximized to improve learning for students who are deaf and hard of hearing.

7. Professional Standards and Personnel Preparation.

New collaborations and initiatives among practitioners and training programs must address the serious shortage of qualified teachers and administrators.

8. Research.

Federal and state dollars should be spent on effective, research-based programs and practices.



Introduction

Background History

The National Agenda, a historic national effort to finally and fundamentally improve educational programming for children who are deaf and hard of hearing, began with a small group of individuals who were inspired by the success of the National Agenda for Blind and Visually Impaired. Through a variety of efforts and strategies, they generated national, state, and local plans to improve educational programs for Visually Impaired students. The *National Agenda for the Education of Children with Visual Impairments, Including Those with Multiple Disabilities*, serves as the foundation document for the implementation of national and state legislation, conferences, workshops, professional literature, and professional interaction.

The National Agenda is both a document and a process, organized around eight national goals and monitored by a National Agenda Steering Committee, Advisory Committee, and National and State goal leaders. The National Agenda has been utilized by different states to develop strategies for implementation, monitoring, and evaluating service delivery. The document is continuously reviewed and updated by the consumers, parents, and professionals that comprise the National Agenda, providing them with a common platform through which local, state, and national issues can be addressed. Over two hundred agencies, schools, and organizations serving individuals who are blind and visually impaired endorse the National Agenda.

The National Agenda for the Blind and Visually Impaired provided us with a wonderful “take-off” point as we pondered how to truly serve deaf and hard of hearing children. It inspired us to make the fundamental changes necessary to ensure that our children have a communication-driven educational system and become literate, productive, and creative citizens for our nation.

Development of the National Agenda for the Education of Students who are Deaf and Hard of Hearing

Our colleagues in Education of the Blind did not have landmark documents designed to promote quality education for their students, such as the 1988 Commission on the Education of the Deaf Report (COED) and the National Association of State Directors of Special Education (NASDSE) Deaf Education Guidelines. On the other hand, our deaf and hard of hearing children face unique communication and language issues that distinguish our efforts from those in the Blind and Visually Impaired communities.

The goal for our National Agenda is to augment these documents, solicit new information regarding current effective practices and issues, and enable the Agenda to serve as an ongoing implementation plan.

We recognize that any effective implementation plan must include a critical analysis of, and recommended changes for, the basic legal, fiscal, and programmatic components of the special education system as it affects deaf and hard of hearing children.

Utilizing the content of the COED Report and the NASDSE Guidelines in a National Agenda format borrowed from the Education of the Blind and Visually Impaired, we introduced the broad concept of a National Agenda for our children. With an endorsement of this concept from the Conference of Educational Administrators of Schools and Programs for the Deaf (CEASD), we then shared the idea with the leadership in the National Association of the Deaf (NAD), the Convention of American Instructors of the Deaf (CAID), the American Society for Deaf Students (ASDC), the Alexander Graham Bell Association (AGBell), the Association of College Educators of Students who are Deaf and Hard of Hearing (ACE-DHH) and the National Project on Deaf Education (NDEP). The interest was contagious, and before long a dialogue began. Recently, representatives from State Department Special Education Services as well as the Division of Communication Disorders for the Deaf (DCDD) from the Council for Exceptional Children (CEC) have joined our effort.

Progress

Representatives of the above organizations comprise the inchoate National Agenda (NA) Advisory Committee. Since starting our work in January 2001, the Advisory Committee has met in cities across the country to review and refine its initial work and to incorporate the feedback on the NA collected by Kent State University at the www.deafed.net website. The Advisory Committee authorized a steering committee, comprised of Ms. Claire Bugen from the Texas School for the Deaf, Dr. Jay Innes from Gallaudet University, Mr. Larry Siegel from the National Deaf Education Project, and Mr. Dennis Russell from the New Jersey School for the Deaf, which has also met to work on the development of a truly nationwide National Agenda for deaf and hard of hearing children. That Steering Committee has expanded to include Ms. Carol Schweitzer from the Wisconsin State Department of Special Education and Ms. Marsha Gunderson from the Iowa State Department of Special Education.

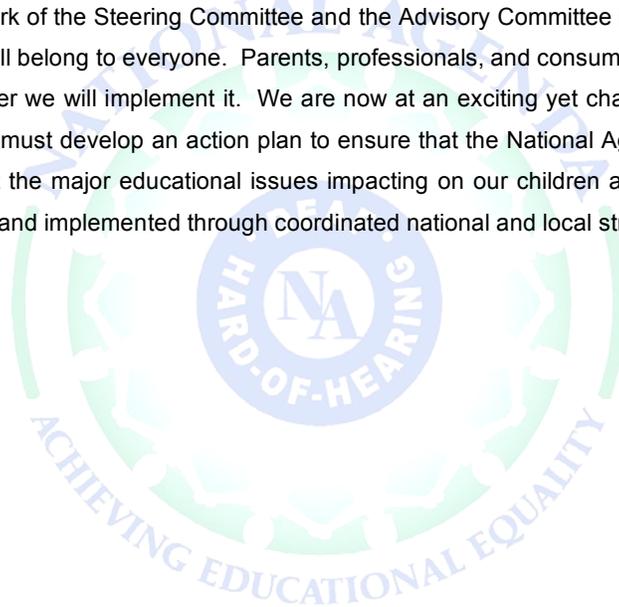
To date, members of the Advisory Group of the National Agenda have:

- Drafted a preamble outlining the unique communication, language, literacy, and other educational needs of deaf and hard of hearing children
- Proposed a broad paradigm shift in the educational delivery system for deaf and hard of hearing children, specifically a communication-driven system that mandates meeting the communication, language, and general education needs of our children
- Identified the specific and critical areas that the National Agenda believes it must address in order to achieve equality of education for students who are deaf and hard of hearing. Those areas are *Early Identification and*

Intervention Services; Communication, Language and Literacy; Collaborative Partnerships; Accountability; Language Rich Environment (LRE); Technology; Personnel Preparation; and a National Agenda for Research.

- Posted the above National Agenda information for nationwide input at www.deafed.net
- Conducted an extensive review process of the comments and made appropriate revisions in the Goals and Issues.
- Identified sources for an editorial review of the content of the NA.

The current draft of the National Agenda was posted on www.deafed.net to allow our constituents to note how their comments were incorporated. Throughout our document we refer to students who are deaf or hard of hearing. We believe that it is critical to stipulate that this category includes students with multiple disabilities -- to address the issues in education of the deaf and not include students with multiple disabilities would be a grave oversight. We must never forget that the work of the Steering Committee and the Advisory Committee is only the starting point. The National Agenda must and will belong to everyone. Parents, professionals, and consumers will ultimately craft the full National Agenda, and together we will implement it. We are now at an exciting yet challenging time in the evolution of the National Agenda. We must develop an action plan to ensure that the National Agenda serves as a forum and process for a dialogue about the major educational issues impacting on our children and a structure through which specific goals are developed and implemented through coordinated national and local strategies.





Goal One: Early Identification and Intervention

The Development of Communication, Language, Social, and Cognitive Skills at the Earliest Possible Age is Fundamental to Subsequent Educational Growth for Deaf and Hard of Hearing Students.

Goal Statement

Families of deaf and hard of hearing infants will be provided, at the earliest possible moment after the birth of the child, appropriate identification, screening, information, and services to ensure age-appropriate communication, linguistic, social development, and cognitive development. Such options and services will be child-centered and family-focused to ensure that families fully understand the meaning and consequences of a hearing loss and all of the linguistic, social, psychological, emotional, and educational consequences, and are aware of all services and programs so that they can appropriately provide for their deaf or hard of hearing child. Such options and services must be “deaf-friendly,” reflecting an understanding of the communication, technological, and environment issues that are so important to deaf and hard of hearing infants and children.

Background

It is well established that the critical intervention time for a baby who is deaf or hard of hearing is the first three years after birth. More specifically, research confirms that the first six months after birth are crucial for the development of appropriate and full communication and linguistic skills. Drs. Yoshinaga-Itano and Mah-Rya found that 26 month-old infants who were identified and provided services between birth and 6 months had “significantly higher” measures of language growth and personal-social development than children who were provided services only after 6 months of age (“The Development of Deaf and Hard of hearing Children Identified Early Through the High-Risk Registry,” Christine Yoshinaga-Itano and Mah-Rya L. Apuzzo, *American Annals of the Deaf*, Dec. 1998, Vol. 143, pp. 416, 421-422).

“Early intervention” must take place beginning at birth and include newborn screening, toddler, and pre-school programs under IDEA, as well as all other services/programs in the child’s home area, county, and state. Early intervention must include an understanding and provision of services and programs that address the linguistic, communication, social, and cognitive needs of deaf and hard of hearing children.

Proposed Goals

- 1.1 In order for newborn deaf and hard of hearing children to develop appropriate linguistic, communication, social, and cognitive skills, parents must have newborn screening, follow-up services after the screening, and other early intervention services to ensure that they have all the tools necessary to help their children develop appropriately and reach all important milestones.

Rationale: Families are the initial, primary, and most important resource for a deaf or hard of hearing newborn or infant and therefore must be fully informed about hearing loss, its consequences, and the services and programs available to them and their child.

1.2 Families will have information about, and complete access to, a full array of services and programs, which lead to the earliest possible, age-appropriate development of linguistics, visual and/or auditory communication, and cognitive, social, and emotional development of the individual child. Such services may include “in-home” and “out-of-home services,” the latter including specialized schools and programs. The goal of such services is to ensure that deaf and hard of hearing infants, toddlers, and children will develop age-appropriate language, social skills, and cognitive skills.

Rationale: Families with newborn deaf and hard of hearing children must have information and referral services so they can quickly and easily access effective medical and other support services and programs that provide educational, communication/language, assistive technology, and other relevant services. Families of newborns, infants, and toddlers with hearing loss must be referred to existing support groups, receive detailed information about hearing loss and communication/language development, and be provided with specific and immediate programs for the family and/or caregivers. These family and child-centered programs should focus on the development of a communication-appropriate home environment for the child, including assistance for the development of an appropriate and immediate communication mode and language for the child, as well as services so that family members can communicate fully and effectively with their child. The family is the most important resource for a deaf or hard of hearing child.

1.3 Families of deaf and hard of hearing infants, toddlers, and children must receive complete and unbiased information about hearing loss, communication development, the central relationship between communication development and educational growth, and other matters unique to deaf and hard of hearing individuals, as well as information about all services and programs that provide assistance to them and their children.

Rationale: Perhaps unlike any other group in the broad world of special education, deaf and hard of hearing children and their families have been subject to diverse, often contentious, and not always accurate information and notions about communication, language, and education for children with a hearing loss. Historically, debates and disputes have taken place about what is the “best” or only way to provide communication and language to deaf and hard of hearing children. As a result, families have been confused, misled, and provided with an insufficient number of communication/linguistic or educational options for their children. More recently, families, educators, and consumers have realized that deaf and hard of hearing children, like all children, require and should have a number of options for the selection and development of communication and language and educational programs. The provision of unbiased, detailed, and numerous options for families is crucial to the development of their children.

1.4. Families of deaf and hard of hearing infants and toddlers should have available training and advocacy services to ensure that they can help their children develop appropriately and meet their communication, linguistic, social, and emotional milestones.

Rationale: Families of newborn and infant deaf and hard of hearing children are often overwhelmed by and un-prepared for raising a child with a hearing loss. They may have had little, if any, contact with adults with a hearing loss, know nothing about the communication options available, and rarely know where to turn for help. Accordingly, training about these issues must be made available to families, as well as advocacy services, so that when faced with difficult and even adversarial matters, they will have the necessary support to best provide for their children.

1.5. In order to appropriately serve deaf and hard of hearing infants, toddlers, and children, the medical community must be fully informed regarding all early interventions, including newborn screening and the development of language and communication for children who are deaf or hard of hearing. The medical community must also be fully informed about all support agencies, institutions, and other entities that serve deaf and hard of hearing newborns and infants and provide information about them in a standardized manner to their families.

Rationale: In order to provide families with accurate information and helpful advice and to assist them in finding appropriate services and programs, medical professionals must have a comprehensive understanding of how hearing loss impacts on a child's linguistic, communication, social and cognitive development and the programs and services available to assist families. The infant's or toddler's physician is often the key professional available to the family and can and must serve as an appropriate source of full and accurate information, services, and programs.

1.6. The medical, educational, and related professionals and institutions must collaborate among themselves to ensure that they can provide complete, unbiased, and useful information and services and programs to families of deaf and hard of hearing infants, toddlers, and children.

Rationale: Historically the individuals and institutions that can provide information and services and programs for newborns, infants, and toddlers who are deaf and hard of hearing do not, in a systemic and synchronized way, collaborate and/or share information. Such collaboration is essential to ensure that deaf and hard of hearing newborns, infants, and toddlers and their families have all the information and services and programs they require.

1.7. Families with deaf and hard of hearing newborns, infants, and toddlers are entitled to work collaboratively with and treated as equal partners and decision-makers by appropriately trained professionals so that they can all prepare the child to function at his/her highest level of communication/language, social, and cognitive development. Such collaboration is essential to the

development of all infant and toddler services and programs and in particular the Individualized Family Services Plan (IFSP) that determines the early intervention services which the child receives and where services are provided.

Rationale: The promise of all early intervention testing, services, and programs can only be realized if families are recognized as the earliest and most important resource for the deaf or hard of hearing child and therefore must be treated as fully informed, equal, and collaborative partners by professionals who have appropriate training and experience.





Goal Two: Communication, Language, and Literacy

The fundamental importance of, and human right to, the development of appropriate communication and language skills.

Goal Statement

Deaf and Hard of Hearing children will develop age-appropriate expressive and receptive communication and language skills which are commensurate with their hearing peers and will become fully literate and productive adults.

Background

The development of age-appropriate communication and language skills is fundamental to a child's academic, social, cognitive, and linguistic development, as well as mental and physical well-being; they will determine to a large degree whether that child can become a productive, fulfilled, and capable adult. Historically, the failure to provide early, on-going, and rich opportunities for the development of age-appropriate communication and language skills has had devastating impact on these children.

Proposed Goals

2.1 Deaf and hard of hearing children, like all children in this nation, must have access to and be part of educational programs that provide three fundamental components: communication assessment, communication access, and communication development.

Rationale: Educational growth and general human growth require that a child develops age-appropriate communication and language skills and has access to an appropriate, rich, diverse, and on-going communication environment. Historically, American educational policy and specific programs have not formally and systemically provided communication assessment, development, and access for deaf and hard of hearing children. Without such access, deaf and hard of hearing children cannot grow or achieve educationally in a way that is commensurate with their individual talents and dreams.

2.2 Deaf and hard of hearing children must have rich, on-going, and appropriate opportunities, including communication access and development, to exchange thoughts, opinions and information, and in essence to “learn” in a positive, nurturing environment.

Rationale: The ability to receive and express individual thoughts and to be part of an environment with rich, appropriate, and on-going communication opportunities is both essential to the growth of deaf and hard of hearing children and a fundamental programmatic

component that has not frequently been available to these children. Historically and in particular since the passage of IDEA, educational programs do not have as a priority or a mandate the provision of communication-rich programs for deaf and hard of hearing children.

- 2.3. Deaf and hard of hearing children must be provided with full communication and language clearly and consistently in all educational environments and with all peers and professionals. Appropriate access can occur in many forms, most notably from educational staff that can communicate directly, proficiently, and in an on-going manner in the child's communication mode and language, through qualified sign or oral interpreters, note-takers, and other services required to provide that necessary access.

Rationale: The uniqueness of deaf and hard of hearing children is the varied communication modes, languages, and signing systems which they use. Whatever their preferred mode, language, or system, the child must have full and appropriate access to the communication and language in the school environment.

- 2.4. Deaf and Hard of Hearing children will have their individual receptive and expressive communication skills and language needs fully assessed as infants and throughout their educational experience. Such assessment must include the child's individual communication mode and language and specific recommendations for how to ensure that the child has age-appropriate communication and language skills in whatever mode and language that child uses.

Rationale: Natural and fluent language is central to the human experience and all successful education. Deaf and hard of hearing children must have access to programs and services that will ensure their development of age-appropriate communication, and language skills. They must have access to effective communication with language models and meaningful and shared communication with a variety of individuals in a variety of settings in order to enhance language development.

- 2.5. The development of age-appropriate communication and language skills for deaf and hard of hearing children requires that their educational programs teach social and pragmatic functions.

Rationale: Historically, educational programs have not systemically provided deaf and hard of hearing students with the type of early and in-depth help which establishes the building blocks for communication and language development. Their educational achievement and literacy depends on the development of such skills and requires specific focus on all aspects of language acquisition, development, and use.

- 2.6. Early, consistent, and meaningful communication between family and child is essential in fostering language competency and the development of literacy. Therefore it is essential that families are provided with support in developing their own and their child's communication and language skills.

They need to work educationally at home and with the schools to develop their child's communication and language skills.

Rationale: Ninety percent of deaf and hard of hearing students are born to hearing parents. Most of these students are language-delayed because they miss the early development of language that is typically acquired through hearing and speaking English or whatever the family's spoken language is. Families have historically not been provided with the support and services and programs necessary to help them develop communication and language competency and therefore help their children acquire such skills. Such services and programs must be available to all families of deaf and hard of hearing children so they can assist their children in understanding, interpreting, and communicating about the world around them.

2.7. Deaf and Hard of Hearing children will have as an integral, required part of their educational program, access to a critical mass of age, cognitive, and communication/language peers and teachers and educational staff who are proficient in the individual child's language and communication mode.

Rationale: No child should go to school without access to a sufficient number of age and language peers, role models, and educational staff who can communicate directly with them. No children in this nation should go to school wondering whether they will have such access. Teachers, peers, and other adults in the school environment should therefore provide deaf and hard of hearing students with rich and on-going opportunities for direct communication in a manner that supports meaningful participation and interaction, across all components of the educational program.

It is not always possible, of course, to provide a large enough numbers of age and language peers for many deaf and hard of hearing children, especially those who use ASL or signing systems or who live in rural areas. It is because of this fact that the educational system must be sensitive to alternative ways to provide such access.

2.8. All education decisions will be based on the deaf or hard of hearing child's communication/language needs, including but not limited to: the preferred mode of communication and language; linguistic needs, including current level of communication/ language skills; severity of hearing loss and the potential for residual hearing, including the use of cochlear implants; the child's academic level and learning style; social/emotional needs; placement preference; individual motivation; cultural needs; and level of family involvement.

Rationale: A hearing loss often results in significant and unique educational needs for the individual child which almost always relate to language and communication and in turn profoundly affect most aspects of the educational process. The special factors outlined above must be considered for all deaf and hard of hearing students.

2.9. Deaf and hard of hearing children are capable of and must develop age-appropriate literacy skills, including the ability to read and write.

Rationale: Deaf and hard of hearing children have tended to have their literacy skills plateau at the 2nd or 3rd grade level. However, literacy is a fundamental pre-requisite for educational growth and success and happiness in life. The educational system must recognize this need, acknowledge the historically dismal reading scores for deaf and hard of hearing children, and therefore develop program-wide strategies for helping deaf and hard of hearing children graduate from high school with the reading and writing skills necessary to grow educationally and develop into productive and capable adults.

2.10 A structured, early, and balanced program of activities for teaching reading and writing should be implemented consistently across the curriculum for deaf and hard of hearing students and should take into consideration individual differences, including an awareness of the communication modes and languages used by the students. Instructional approaches to developing literacy in deaf and hard of hearing students should provide creative and visual means to teach reading and writing.

Rationale: Deaf children need opportunities to develop literacy skills formally and informally in home, school, and community activities. Activities should vary according to the instructional goal and should include authentic reading and writing tasks. Knowledge of the student's degree of competence in communication and language will help guide the selection of formal instruction strategies.

2.11 The development of age-appropriate English skills is crucial to deaf and hard of hearing students.

Rationale: Mastering written English can be a lifelong struggle for many deaf and hard of hearing students, who in many cases are acquiring English as a second language. Reading and writing a phonetic language that they have never heard is a significant obstacle to literacy. Students at all levels of development need access to instructional approaches that are student-centered, incorporate and build on the child's individual language competence, and utilize visual and other means to ensure that they develop age-appropriate English skills.

2.12. Reading programs for deaf children should be research-based and involve core components of reading, e.g., phonemic awareness skills, phonics skills, reading fluency, vocabulary development, and comprehension strategies, and thus allow the deaf learner to draw on syntactic, semantic, and phonological information to gain meaning.

Rationale: Reading programs, particularly those for deaf and hard of hearing children, must be based on quality research. In addition, the current federal law, No Child Left Behind (NCLB) requires that all school districts and individual schools use effective, research-based reading programs so that all children are reading at grade level by the end of third grade.

3

Goal Three: Collaborative Partnerships

Goal Statement

Deaf and hard of hearing children require and are best served when effective and mutually respectful partnerships are established between and among educators, families, and the institutions and programs in the community that serve those children and their families. Given the importance of early and on-going communication, language, and educational development for these children, a seamless system of information and services and programs must be made available to the family and child throughout her/his educational career.

Background

Deaf and hard of hearing students and their families face many challenges, especially at critical transition points, including when the hearing loss is first discovered, when a decision must be made about the child's communication mode and language, and when the child moves from early education services to elementary school, elementary to high school, high school to college or employment, entering a post-secondary program, and/or deciding to live independently in the community. The success of each transition depends on collaboration and partnership among diverse agencies in the coordination of a variety of services.

Proposed goals:

- 3.1. The establishment of a seamless, complete, and cross-institutional collaborative system will ensure that families are fully informed as to all service and program options available for their children and are equal partners and the key decision-makers in the education of their child. Generally such a system will address the communication, language, cognitive, academic, social, emotional, psychological, and post-secondary, employment, and independent living skill needs of deaf and hard of hearing children and must be in place to serve these children from their birth to high school graduation and beyond.

Rationale: Historically families have not always been provided sufficient, clear, and unbiased information regarding the many needs of their deaf and hard of hearing children. Part of the difficulty has been that the various institutions and programs that provide services to deaf and hard of hearing children – from infancy through high school – have not effectively communicated with each other and therefore have not established a collaborative partnership among families and these institutions. Such a system is central to the effective growth of deaf and hard hearing children and their families.

3.2 Collaborative partnerships among families and the medical community, educators, policy-makers, researchers, business, community agencies, state organizations, and national organizations will be established and maintained in order to provide information to families and services to deaf and hard of hearing children and foster effective transitions for children and their families throughout their educational experience.

Rationale: The educational, medical, business, governmental, academic, and other communities can and must play a pivotal role in providing information to families and services to deaf and hard of hearing children.

3.3. The educational system that serves deaf and hard of hearing children, including the IFSP and IEP processes must work collaboratively and fairly with the families of these children and respect and follow the family recommendations of families as they relate to the communication, language, and educational goals of their children.

Rationale: Given the unique nature of a hearing loss, the complex communication and language issues involved, and the tendency over the years of many special education administrations to either misunderstand those issues or have insufficient knowledge about them, families have often represented the most important source of valid information about their children. It is therefore essential that those families are brought fully into the process and their opinions fully explored, respected, and as appropriate accepted. Only in this way can families be truly equal partners and decision-makers in a collaborative process.

3.4. Deaf and hard of hearing students are entitled to and can become independent, self-sufficient adults. All appropriate institutions, including State Education Agencies, intermediate educational service agencies, local educational agencies (LEAs), post-secondary programs, and all other pertinent governmental and community resources shall work together with deaf and hard of hearing students and their families to ensure that this goal is met.

Rationale: Schools are required to ensure that the independent living skills of deaf and hard of hearing students are developed. In order to accomplish this goal, they must develop effective relationships with post-secondary institutions, community, and business.

4

Goal Four: System Responsibility: Accountability, High-Stakes Testing, Assessment, and Standards-Based Environments

To ensure that the Education of Deaf and Hard of Hearing Children is Based on Sound Systemic Procedures and Standards.

Goal Statement

Deaf and hard of hearing students are entitled to an educational program in which system-wide responsibility is clear and involves procedures for accountability, high-stakes testing, assessment, and standards. Accountability measures must include examination of programs and services on a local and statewide basis. High-stakes testing must be based on and fully incorporate the child's communication and language needs. Assessment of deaf and hard of hearing children must be comprehensive and include testing and evaluation of the child's communication, linguistic, academic, cognitive, psychology, physical, and all other areas pertinent to the child. The entire educational delivery system for deaf and hard of hearing children must be based on clear standards or "best practices," which reflects the best thinking regarding educational programs and services and the relationship of communication and language to literacy and educational growth.

Background

Deaf and hard of hearing children have not systemically been provided with an educational system that has a well-reasoned and clear accountability process, assessment procedures, equitable high-stakes testing, and well-articulated standards. Historically state educational agencies have not had sufficient resources and in some cases a complete understanding of the needs of deaf and hard of hearing children that are necessary to develop effective procedures for assessing and measuring all programs in their states. Because deaf and hard of hearing children have truly unique communication, language, and educational needs, all these areas of system responsibility must reflect the best thinking of educators, parents, and consumers and have sufficient resources to establish effective accountability and standards. Instruction for students who are deaf and hard of hearing must be data-driven, focus on multiple measures of student performance, including authentic assessment in a variety of disciplines, and lead to a diploma which is consistent with the student's IEP and/or all state graduation requirements.

Proposed goals

- 4.1. Assessments of deaf and hard of hearing students must be child-centered, focus on all areas of the child's profile, and employ multiple measures that include criterion-referenced tests, standardized tests, teacher and student accountability records, and other appropriate assessment tools. Assessments

must take into account and reflect the child's communication and language preference, need, and expressive and receptive skill levels.

Rationale: Like all children, deaf and hard of hearing students must have well-reasoned, child-centered and objective measures for determining their levels of cognitive, psychological, emotional, linguistic, educational, and other skills.

4.2. Assessment of deaf students who use ASL and English will include measures of competencies in both languages and will specifically measure expressive and receptive skills in both.

Rationale: Deaf students who use both ASL and English as languages of instruction must develop proficiency in both languages. Assessment of functional levels in only one language does not provide a complete profile of the student's language abilities.

4.3. Given the importance of age-appropriate communication and language, assessments for deaf and hard of hearing children must not only include information regarding current levels of skills, but also recommendations for how to improve communication and language skills.

Rationale: Since the development of communication and language skills is crucial to the subsequent development of all educational skills, it is essential that the assessment of deaf and hard of hearing children include specific recommendations for improving those skills.

4.4. Parents, consumers, and educators must be provided with appropriate and complete information regarding accommodations, modifications, and adaptations to assessments for their deaf and hard of hearing children, as well as information regarding alternative assessments.

Rationale: Given the importance of communication and language to a child's development and educational growth, deaf and hard of hearing children must have equal access to testing without compromising the integrity of the test.

4.5. A guide should be developed by the U.S. Department of Education and disseminated regarding the testing of deaf and hard of hearing students, how their individual and primary communication preferences and modes including ASL impact their testing outcomes, and what should be done to ensure that those children are fairly and fully tested.

Rationale: A resource guide is needed for practitioners that includes a range of options for accommodations, modifications, adaptations, and alternative assessment strategies and models, including use of ASL during assessments.

4.6. District and statewide testing programs must take into consideration the unique language and communication preferences, abilities, and needs of the students.

Rationale: District and statewide testing measures often unintentionally measure the English proficiency of deaf or hard of hearing students rather than their knowledge and acquired skills in reading, writing, math, and other content areas.

- 4.7. High-stakes testing programs must adhere to the guidelines issued by the U.S. Department of Education Office of Civil Rights, as noted in their publication entitled, “The use of tests as part of high-stakes decision-making for students: A resource guide for educators and policy-makers.”

Rationale: Deaf and hard of hearing students must be afforded the same rights as their hearing peers, and schools must ensure equal access to all testing, including high-stakes testing.

- 4.8. Clear and effective accountability systems must be established in each state to ensure that programs for deaf and hard of hearing students are effective, fully funded, and developed consistent with legal requirements and best practices for teaching deaf and hard of hearing children.

Rationale: Too often in the past few if any state accountability procedures were in place to ensure consistent and effective educational programs for deaf and hard of hearing students; without such procedures, educational opportunities for those children will continue to lag behind other students.

- 4.9. Statewide accountability procedures and audits of educational programs for deaf and hard of hearing students must evaluate how local programs address the following:

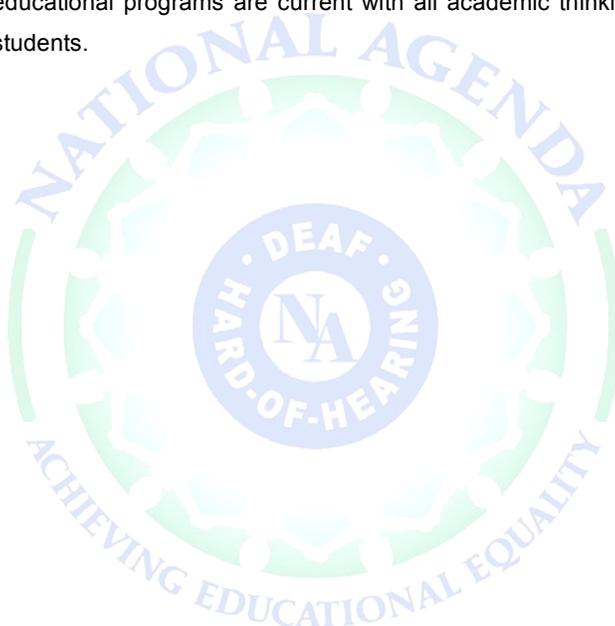
- Language preference and use
- Degree of hearing loss
- Age of onset
- Etiology and additional disabilities that affect learning
- Ethnicity and home language
- Parental hearing status
- Cognitive abilities
- Early identification intervention
- Program design
- Education background
- School placement history
- Demographic information as to the number, age, and skill levels in all areas for all deaf and hard of hearing children in the state
- Detailed description of all programs and services currently available for deaf and hard of hearing children in the state.

4.10 Detailed demographic information is needed to ensure that accountability procedures are appropriate and further that educational programs for deaf and hard of hearing students are effective.

Rationale: Accurate demographic data will improve the quality of programming for all deaf and hard of hearing students.

4.11. A “best practices” guide is required to ensure that all programs serving deaf and hard of hearing students are effective and appropriate, and address all needs of those children and in particular their communication and language needs.

Rationale: Because deaf and hard of hearing students represent a unique educational community, it is crucially important that a “best practices” guide be established to ensure that their educational programs are current with all academic thinking and appropriate for those students.





Goal Five: Placement and Programs

Goal Statement

Deaf and hard of hearing students require a full continuum of placement options that recognize, provide for, and are based upon their language and communication needs. A determination of what constitutes the “least restrictive environment” for deaf and hard of hearing students must be determined by considering first and foremost these unique communication and linguistic needs and then the student’s educational, social, emotional, cognitive, and physical abilities and needs.

Background

Too often IEP teams make placement decisions for the child who is deaf or hard of hearing without giving full regard to the communication, language, and educational (including literacy) needs unique to children who do not hear. Since the passage of IDEA, the IEP discussion of the least restrictive environment for deaf and hard of hearing students has been narrow in approach in which the participants are not fully informed or aware of the central role that communication plays in the determination of placement for the child. IDEA has been narrowly interpreted to say that all children are to be placed in the general education classroom with supplementary aids and services, creating a difficult legal barrier to overcome for deaf and hard of hearing children for whom a non-regular placement that is communication- and language-rich is truly the “least restrictive.”

While the re-authorization of IDEA in 1997 as well as the U.S. Department of Education’s 1992 “Deaf Students Education Services: Policy Guidance” (57 Fed. Reg. 49274) recognize the importance of communication in determining Least Restrictive Environment (LRE), IDEA still focuses on generic notions of mainstreaming rather than the unique communication needs in determining LRE for deaf and hard of hearing children.

This goal seeks to create a clear recognition of the information required to determine what is LRE for deaf and hard of hearing students and the nature of the educational continuum of placement options. The deaf and hard of hearing child’s communication mode and language – whether manual or aural/oral – must determine what is truly a “least restrictive environment.”

Proposed Goals

- 5.1 All IEP team participants will be provided all information, without any bias, about all educational options along the continuum of educational placements and in particular how the communication, linguistic, and educational needs and goals of the deaf or hard of hearing student will be addressed in those options.

Rationale: Too often school personnel do not inform families of all the educational options available in their state that provide educational support for children who are deaf or hard of hearing, including those with additional disabilities, and in particular how those options can address the communication, language, and educational needs of the child. Too often school personnel have a bias toward certain educational settings and against others – even without full knowledge of the full continuum of settings. This bias can run the gamut of favoring mainstreaming programs when a richer, non-regular program will serve the needs of the child to favoring a non-regular placement when indeed the child would benefit from a mainstreamed option.

5.2. Local educational agencies must have a full continuum of placement options that can provide for the unique communication, linguistic, and educational needs of deaf children and shall make all placement and LRE determinations based on all of those needs.

Rationale: All too often for deaf and hard of hearing students, a true, communication-rich, and full continuum of placement options are not available. This situation has historically limited and harmed these children and presented their families with inappropriate educational options.

5.3. As required under IDEA the provision of a full continuum of placement options and the further requirement that a child be placed in the “least restrictive environment”, shall mean for deaf and hard of hearing students those environments that can address the student’s communication, linguistic, and educational needs. The IEP team will make all placement/LRE determinations based on the abilities and needs of the child, including fundamental communication and linguistic needs, and not solely on a philosophy that one particular option on the continuum best serves all children.

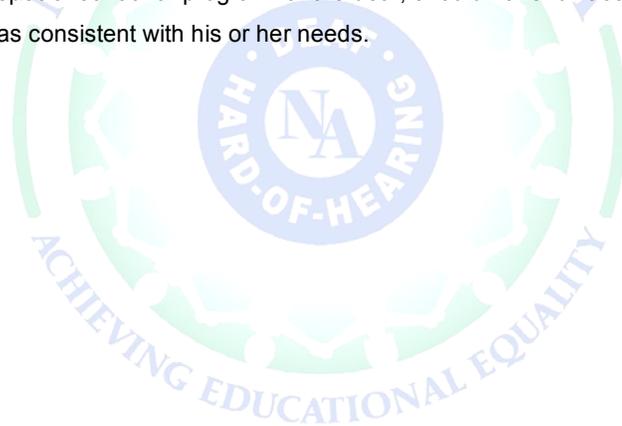
Rationale: A truly “least restrictive environment” is not a generic concept or as often designated as a “one size fits all,” but rather one in which the individual communication, language, and educational needs of the child determines what is LRE, not the other way around. The continuum of educational placements is a menu of options that are designed to meet the varied needs of children with disabilities, not a hierarchy that states that the regular classroom as the “better” or “only” option and that special schools for deaf and hard of hearing students are “more restrictive.” For some deaf and hard of hearing children, a special school is truly “least restrictive,” just as for others a regular classroom is LRE. In either case, the child’s needs, not a generic concept of LRE, must determine what is truly LRE for each individual child.

5.4. A determination of what constitutes a communication and linguistically appropriate placement option and therefore LRE must be based on where the child is able to directly communicate with age and language peers and communicate directly and most easily with staff.

Rationale: A truly LRE is one in which the student can communicate directly and effectively with peers and staff. This concept is fundamental and indisputable. The educational needs of students are not limited to academic or “book work,” but also include the social-emotional development that comes from building true friendships. Language and critical thinking skills develop with the use of classroom dialogue that is active and challenging. Students who demonstrate strong self-determination and self-confidence are those who are confident in who they are and have the communication and language skills and access needed to grow into productive and happy adults.

5.5: Deaf and hard of hearing are entitled to access the general curriculum, regardless of where their individual program is located or where on the continuum of placement options, their classroom is located.

Rationale: IDEA requires that all children have access to the general curriculum. Too often the concept of “general curriculum” is equated or confused with “least restrictive environment” or with placement in a regular classroom. The two concepts are separate and distinct. Every deaf and hard of hearing child, whether in a regular classroom or a special school or program for the deaf, should have full access to the general curriculum as consistent with his or her needs.





Goal Six: Technology

A Fundamental Tool for the Communication and Educational Enhancement of Deaf and Hard of Hearing Students.

Goal Statement

Technology must be made available for and used by deaf and hard of hearing students to enhance their communication and language opportunities, enlarge their educational options, increase cognitive and academic skills, and enrich their lives now and in the future.

Background

Technology is of particular importance for deaf and hard of hearing students because it provides unique and necessary communication and educational access. Technology tools and resources **must** become an integral part of both the teaching and the learning process if they are to have an impact on the achievement of deaf and hard of hearing students. Within a sound educational system, deaf and hard of hearing students can effectively use technology as they seek information and widen their worlds, as they learn to evaluate and analyze, as they seek to solve problems and make decisions, and as they become creative communicators, collaborators, publishers, and producers as well as informed, responsible, and contributing citizens.

Deaf education must incorporate instructional and assistive technologies, telecommunication devices, and access to contemporary and emerging technologies.

Proposed Goals

6.1 All instructional and information technologies used in the teaching and learning process for deaf and hard of hearing children should be, as appropriate for each individual child, visually and/or aurally/orally accessible.

Rationale: "Full access" incorporates captioning, visual signaling and alert systems, telecommunication devices, LCD information displays, SmartBoards, and other technological accommodations.

6.2 Educational programs for students who are deaf and hard of hearing should integrate technology standards into the general curriculum at all developmental levels.

Rationale: Federal law including, IDEA and NCLB, emphasizes the importance of the power of technology in all areas of K-12 education, from reading to science to special education.

6.3 Accurate diagnosis of hearing loss and appropriate amplification and other assistive technologies, both acoustic and visual, is the right of all deaf children.

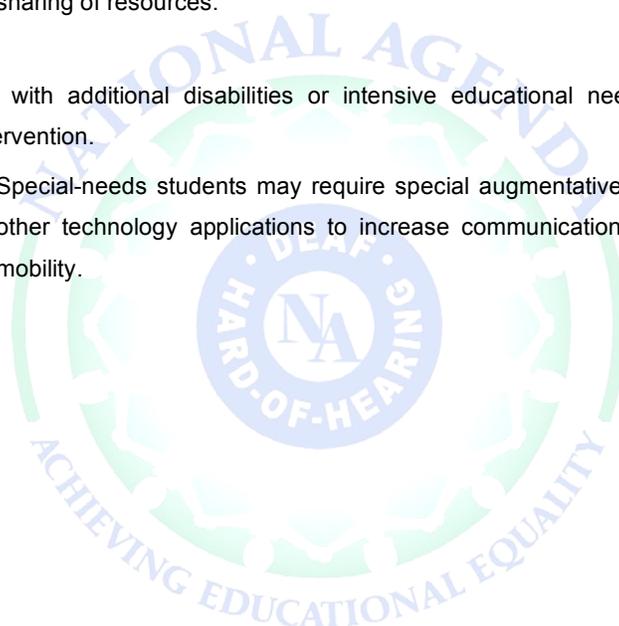
Rationale: Audiology is part of the education of deaf children. Information presented regarding the relative merits of any assistive technology, including cochlear implants, should be done by a knowledgeable and unbiased professional.

6.4 Technologies such as videoconferencing, distance learning, and video-relay services should be utilized to allow deaf and hard of hearing students the opportunity to communicate, collaborate, and interact with peers, experts, and other audiences.

Rationale: Innovative technology opens new doors for communication access, networking, and the sharing of resources.

6.5 Deaf students with additional disabilities or intensive educational needs may require specialized technology intervention.

Rationale: Special-needs students may require special augmentative communication devices and other technology applications to increase communication, environmental control, and mobility.





Goal Seven: Professional Standards and Personnel Preparation

Goal Statement

A collaborative partnership is needed among universities, schools, and communities to enable the preparation, recruitment, retention, and on-going professional development of an optimal supply of teachers, administrators, and related personnel with the demonstrated knowledge, skills, and experiences to meet the needs of a diverse population of deaf and hard of hearing learners.

Background

Highly qualified deaf educators are in short supply and high demand, and that shortage is expected to worsen at least until the year 2014. High-quality teaching is an important factor in the education that a deaf or hard of hearing child receives. Teachers of children who are deaf or hard of hearing require specialized training in order to obtain the skills necessary to meet those needs, including the communication and language skills required to communicate proficiently with students who have a hearing loss. Currently teacher-education programs are not preparing a sufficient number of teachers to meet replacement and growth needs. Over the past decade, 21 university deaf education teacher-training programs in the U.S. were discontinued while only 12 new programs were initiated. The status of teacher retention is equally dim. Currently 20% of teachers do not remain in their positions for more than five years.

Concurrent with this teacher shortage, the NCLB requires all teachers who provide instruction in core subjects, including special education teachers, to be “highly qualified” for the subjects they teach as of 2005-2006.

New and creative efforts to meet this challenge must be initiated. A new partnership of key stakeholders must develop a common understanding of the problem and develop action plans to remedy the problem.

Proposed goals

7.1 State certification standards should be aligned with the Council on the Education of the Deaf [CED] national standards to ensure higher quality and to provide more consistency and portability of certification across states.

Rationale: Deaf education certifications vary from state to state. Some states offer categorical certificates that certify teachers to teach children of all ages who are deaf or hard of hearing. Other states accept a more generic special education degree that certifies a teacher to teach children with all disabilities in a specific age range, while others hold

separate standards for elementary versus secondary grades. Many states offer a combination of these certification types. Inconsistent certification standards make it difficult to transfer certifications from one state to another. CED standards are research-based and are also linked to a national university accreditation process (the National Council on the Accreditation of Teacher Education—NCATE).

7.2 Teacher training programs for deaf and hard of hearing students need to offer additional coursework in general education curricular areas and instructional strategies in order to better prepare teachers for improving student achievement in relation to mandated state curricular standards.

Rationale: In addition to the specialized training required to teach deaf and hard of hearing students, university teacher-education programs need to offer teacher preparation courses that focus on aligning curriculum and instruction and implementing accountability measures that are uniquely suited to the needs of a variety of learners.

7.3 Teacher preparation programs should include more performance-based assessments that offer varying opportunities for observation, clinical practice, and mentoring which uses modern technologies and customized learning opportunities.

Rationale: Research indicates a strong relationship between teacher retention and adequate preparation, including background in subject matter, pedagogy, and meaningful induction and mentoring programs.

7.4 High-quality alternative pathways to credentialing teachers, administrators, and support personnel to work with deaf and hard of hearing students must be provided.

Rationale: Undergraduate and graduate preparation programs cannot be the only source for filling critical teacher, administrative, and support personnel vacancies, particularly with ethnic-minority and ethnic-minority deaf personnel. It is critical that alternative programs be available and held to high standards and ensures that their graduates demonstrate acquisition of critical knowledge and skills. It is also important that schools provide mentoring support for new professionals.

7.5 The unique circumstances of teachers of the deaf and hard of hearing who teach multiple core academic subjects in a variety of school settings must be addressed by IDEA, NCLB, and all other applicable federal laws.

Rationale: NCLB's teacher quality requirements define a highly qualified teacher as having state certification, as well as demonstrated competence or an academic major in the subject area which they are teaching. The critical shortage of quality teachers of the deaf and hard of hearing suggests that this standard may need to be achieved in creative and alternative ways. In areas where shortages exist, these alternatives may include hiring persons who are still in the process of making satisfactory progress toward completing coursework necessary to meet state certification standards within three years.

7.6 Policies focusing on recruitment and retention of qualified deaf education personnel must be addressed at the federal, state and local level.

Rationale: The teacher shortage is partly a symptom of the teacher-retention problem. One-third of new teachers leave the profession within three years, and almost one-half leave within five years. University training programs must better prepare teachers for both what to teach and how to teach. Schools must also do a better job of creating and providing incentives for teachers.

7.7 The level of proficiency of personnel providing educational interpreting services must be increased in accordance with state or national standards.

Rationale: One of the challenges in providing an appropriate education for students who are deaf and hard of hearing is the inadequate number of skilled educational interpreters. Many schools are using the services of uncertified persons who have only limited training in the role of educational interpreter. Interpreters should be evaluated and rated in the language used by the child, with the understanding that the child's age, additional disability, and level of prior knowledge have an impact on the child's process of comprehension.

7.8 All educational staff working with deaf and hard of hearing students must demonstrate adult-level proficiency in the communication mode and language used by the students with whom they work.

Rationale: Historically, teachers and other educational staff have not always been able to communicate directly and proficiently with their deaf and hard of hearing students. The obvious need for educators to communicate with their students is central to any successful educational program, particularly for those serving deaf and hard of hearing students.



Goal Eight: Research

Research is the foundation upon which quality educational practices for deaf and hard of hearing students is based.

Goal

Wide-ranging research is critical to the development of a quality, communication-driven education system for deaf and hard of hearing students.

Background

Deaf educators face broad and important issues: How does a child develop communication, how does it impact on all educational growth, and how should it drive educational planning for deaf and hard of hearing students? How can we provide families of deaf students access to objective information about educational choices? How do we teach reading to deaf children? How can we reach a diverse population of deaf students in a variety of different settings? What are the critical factors that impact deaf students' academic performance? Such questions are at the heart of deaf education, and we need all of our professional resources to answer them.

Scholarship in deaf education encompasses philosophy and history. It includes rich description of successful programs, explores new ideas about individual and group "best practices," and objectively tests the outcome of certain conditions, philosophies, and techniques. Diverse modes of inquiry are invaluable to research in deaf education when they are applied to important questions about what we want and need to know.

In the Research Goal, the National Agenda poses the following points as important areas for research as it relates to the education of deaf and hard of hearing students. They were developed with input submitted by a variety of professionals, parents, and consumers. The questions are divided into the seven other goal areas of the National Agenda. As with any viable research, the National Agenda invites our profession's reactions to, and involvement with, these proposed areas of research:

Early Intervention

- What are the necessary services for a child and his/her family to ensure age-appropriate communication, linguistic, social, and cognitive development?
- What has been the effect of universal newborn screening on early intervention systems?
- How knowledgeable is the medical community regarding the development of language and communication intervention for deaf and hard of hearing children?

- What practices are the members of the medical community engaging in during their association with families of deaf and hard of hearing children?

Language, Communication and Literacy

- What are and what should be the corresponding ASL and English levels of proficiency for Deaf Children?
- What is the impact of dual language programming on Deaf/HH children?
- How do we implement instruction for deaf and hard of hearing children who come from non-English speaking homes?
- Should ASL be recognized as the primary language of deaf people? To what extent is ASL recognition a research goal?
- What is the impact on language development of using a sign language interpreter as the only conduit for communication during the school day?
- What is the impact of different communication systems (e.g., Cued Speech, Signed English, etc.) on language development?
- How should literacy be defined for deaf and hard of hearing students?
- How are the various phonics-based reading approaches currently so popular in the US and supported at the federal and state levels impacting reading programs and ultimately deaf and hard of hearing students in the US?
- Which reading theories (top-down, bottom-up, or integrated approaches) produce successful deaf readers, and under what conditions?
- What are the research-based best practices in reading instruction for deaf students? (NCLB)
- What is the effect of language-based technologies (e.g., email, closed captioning, pagers, CART, etc.) on the literacy skills of deaf children?
- What will be the results of an analysis communication and language development programs across the nation?

Partnerships and Transition

- What successful partnership models are available for the profession? What are their practices?
- What are the elements of a successful partnership model for engendering shared responsibility of educators, parents, and community?
- How do schools and agencies providing a full range of services interact with each other to ensure that parents and families have access to ALL information and opportunities?
- What role does the teacher preparation program have in a successful partnership?
- What role does the community and deaf adult have in a successful partnership?

Accountability, High Stakes Testing, Standards Based Environments

- How are schools and programs for deaf and hard of hearing students being evaluated in high-stakes testing environments?
- What accommodations and/or adaptations are test administrators providing to deaf and hard of hearing students? What are the effects of these accommodations and/or adaptations?
- What has been the effect of high-stakes testing on the graduation rate of deaf and hard of hearing students?
- What alternative assessments are being offered to deaf and hard of hearing students? How many students are being evaluated under alternative assessment programs?
- How are standards-based curricula being integrated into schools and programs for deaf and hard of hearing children? What has been the impact of such curricula on content learning for deaf and hard of hearing children?
- What are the best measures of “adequate yearly progress” for deaf students as defined by the NCLB?

Placement and Programs

- Where are students currently being educated? What services are currently available?
- How are curricula selected for deaf and hard of hearing children? How early are children directed toward a standard diploma or an alternative diploma or certificate?
- What is the relationship between *language and communication access* to instructional setting and deaf students’ achievement on state assessment standards?
- What is the impact of age-appropriate peers in meeting deaf students’ social-emotional needs?
- How do the “special factors” to be considered in the development of a deaf student’s IEP impact placement decisions?
- To what extent are communication development and communication access a fundamental and formal part of the continuum, and if they are not, then how might that access best become a programmatic mandate?

Technology

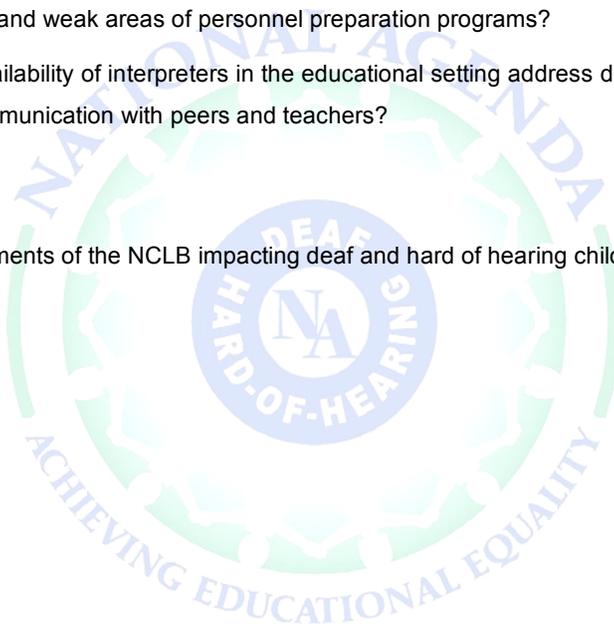
- What kind of technology training and materials are being provided to deaf and hard of hearing children?
- What role does assistive technology have in the education of deaf children?
- Are schools and programs utilizing technology as an integrated tool in learning situations? If so, how is this being done?
- What practices are software producers following in making their materials accessible to the deaf and hard of hearing students?
- What impact are instructional technologies having on deaf and hard of hearing students in K-12 programs?

Professional Standards and Personnel Prep

- What percentage of teachers and support personnel are deaf? At what level are individuals from ethnic minorities teaching in field? At what level of individuals from ethnic minorities certified as teachers of the deaf?
- What impact has state-mandated teacher testing had upon the teacher population?
- Are the current standards for teachers reflective of the current student population's needs?
- What types of personnel preparation programs are available? Geographically? Non-Traditional? Undergraduate? Graduate?
- What is the attrition rate in teaching of deaf and hard of hearing children?
- What in-service education models are most successful in assisting teachers and support professionals in the field of deafness?
- What are the strong and weak areas of personnel preparation programs?
- Does the current availability of interpreters in the educational setting address deaf children's needs for direct and meaningful communication with peers and teachers?

Research

- How are the requirements of the NCLB impacting deaf and hard of hearing children?





Appendices

A new model federal law should include the following:

Congress finds the following:

- A. In this nation as many as 1,053,000 individuals under the age of 18 have a reported hearing loss; anywhere from 60,000 to 80,000 children with a hearing loss were served in special education programs;
- B. A hearing loss involves the most basic of human needs, the ability to communicate with other human beings. Many deaf and hard of hearing children use, as their primary communication mode, American Sign Language, while others express and receive language through English-based sign systems, or orally and aurally, with or without visual signs or cues;
- C. The importance of developing early and effective language and communication skills is fundamental to the educational growth of all children; deaf and hard of hearing children are often denied early opportunity for, and enter school with, minimal communication skills;
- D. Deaf and hard of hearing children on average graduate (if they graduate) from high school with substandard reading and other academic skills, have high rates of illiteracy, and have low rates of college attendance. Deaf and hard of hearing adults have significantly high rates of unemployment and under-employment and higher reliance on various forms of governmental assistance than hearing people;
- E. In 1988, the Commission on the Education of the Deaf (COED) reported to the Congress and President of the United States that the status of education for deaf children was unacceptable and recommended fundamental changes in how educational services are delivered to deaf and hard of hearing children, including changes in the way the IDEA was applied to these children; the National Association of State Directors of Special Education in its 1994 "Educational Guidelines for Deaf and Hard of hearing Children," reported that because of the unique communication and cultural needs of deaf and hard of hearing children, significant changes in the educational delivery system should be made;
- F. Existing law, particularly IDEA, provides significant assistance to deaf and hard of hearing children and as re-authorized in 1997 requires that the IEP team consider a deaf or hard of hearing child's unique communication needs; IDEA, however, because of its focus on the "least restrictive environment," is particularly limiting as written for many deaf and hard of hearing children;
- G. Congress therefore recognizes that IDEA should and can be made compatible with the unique needs of deaf and hard of hearing children and by this Act assures that all deaf and hard of hearing children are provided a quality education in which:
 1. The educational delivery system for deaf and hard of hearing children is communication-driven to ensure that programs and services provided for those children address their unique communication needs;

2. A communication-driven educational delivery system will ensure that communication assessment, development, and access, and the various programmatic and other components described herein are fundamental to any educational delivery system for deaf and hard of hearing children;
3. In a communication-driven system all programmatic and fiscal determinations will be based on the unique communication needs of deaf and hard of hearing children

This Act is designed to be fully compatible with IDEA and in addition establishes standards and rules and procedures for educating children who are deaf and hard of hearing; such standards and rules are to be specifically incorporated into IDEA with all determinations made by an IEP team or any other educational unit to be fully consistent with the requirements described herein;

A child's individual communication and educational needs dictates all components of his or her educational program; this Act does not establish the requirement that one particular educational style or program or one particular communication mode or language is preferred over another, but rather that the child's individual communication needs will determine individual placement and service determinations. Deaf and hard of hearing children communicate in very different ways; what constitutes communication assessment, development, and access for an oral child will be very different for a child who uses sign language. Each communication mode and language or system will be recognized, respected, and provided for;

A deaf and hard of hearing child therefore is fully entitled to a free appropriate public education which meets his or her specific communication needs in the least restrictive environment as required by IDEA and consistent with the requirements herein.

The least restrictive environment for a deaf or hard of hearing child is specifically defined as that classroom and program which provides for the child's communication development and access as described herein at §9) and therefore may be a regular classroom, a special classroom or school, or residential placement. By this Act, the right to be educated in a regular classroom is not altered.

To the maximum extent appropriate, children with disabilities who need alternative educational settings have an equal right to such settings. The burden to remove children from a regular educational environment or from an alternative environment rests on the LEA, which must demonstrate clear and convincing reasons why the child should be so removed.

Given the importance of a deaf and hard of hearing child's communication needs, the IEP team shall be formally designated as the "IEP/Communication Development Team" for those children;

9. A deaf and hard of hearing child is entitled to an education which provides:
 - appropriate early and on-going communication **assessment**,
 - early and on-going communication **development**, which includes specific educational programs and services to ensure
 - that the child has age-appropriate communication (expressive and receptive) and other academic skills;
 - appropriate, early, and on-going communication **access**, including a critical mass of age and language peers, staff proficient in the child's communication mode, and direct and appropriate communication access to all school activities;

10. There is recognition of the individual child's particular hearing loss and unique cultural and linguistic needs;
11. There is provision of appropriate programs, including all options on the "continuum of placement options" under IDEA, as well as regional centers, center schools and other placement options which can provide for the critical mass, language access, and development necessary for many deaf and hard of hearing children as required by 20 U.S.C. §1413(h);
12. There is provision of programs and program components, which are communication-accessible with professional staff appropriately trained, fully proficient in the child's individual communication mode and language, and who understand the unique needs of deaf and hard of hearing students;
13. There is development of age-appropriate English writing and reading language skills;
14. There is development of appropriate curricula, materials, and assessment instruments and the implementation of "best practices";
15. There is recognition of American Sign Language as a distinct language of deaf people and the development of standards for teaching it as a language; adopt American Sign Language as a foreign language in high school graduation requirements;
16. There is clear recognition of and provision for the unique needs of deaf and hard of hearing children who are oral/aural and require an educational environment and program that meets those needs, including, but not limited to a critical mass of oral/aural peers, appropriately trained staff, and such support services as required to provide for the development of the child's receptive and expressive speech skills, and the right to be in regular education under IDEA 1997;
17. There is the development of standards for teachers, sign language and oral interpreters, and other aides and professionals who work with deaf and hard of hearing students;
18. There is the development of the highest academic standards for deaf and hard of hearing children and the provision of services and programs to ensure they are provided a quality and rigorous educational experience;
19. State and local educational agencies will be responsible for developing communication-driven programs for deaf and hard of hearing children;
20. There is the development of programs and procedures to ensure that the responsible educational units, including state and local agencies, develop inter-agency agreements with appropriate health and other institutions and agencies in the various states regarding universal, early identification of hearing loss, and effective interface between medical and educational services;
21. There is the provision of parent and guardian training, reference to appropriate medical, educational, and community resources, and assistance in developing family language skills.

8 Goal Areas

1. Early Childhood Education
2. Communication, Language, and Literacy
3. Collaborative Partnerships
4. Accountability
5. Placement and Programs
6. Technology
7. Personnel Preparation
8. Research

Political
Vehicle

Living Resource
Document



Inclusive
Unifying Structure

National, State
& Local Strategies

Vision for
the Future



ED414675 1997-08-00 Educating Children Who Are Deaf or Hard of Hearing: Inclusion. ERIC Digest #E557.

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Table of Contents

If you're viewing this document online, you can click any of the topics below to link directly to that section.

Educating Children Who Are Deaf or Hard of Hearing: Inclusion. ERIC Digest #E557.....	1
WHO CAN CHOOSE AN INCLUSION OPTION?.....	2
WHAT ARE SOME QUESTIONS TO ASK BEFORE CHOOSING THIS OPTION?.....	5
REFERENCES.....	6



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Educating Children Who Are Deaf or Hard of Hearing: Inclusion. ERIC Digest #E557.

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WHAT IS MEANT BY INCLUSION?

The "inclusion" of students who are deaf refers to their being educated within a

classroom of students with normal hearing. Inclusion differs from "mainstreaming" in that mainstreaming may refer to a variety of degrees of contact with hearing students, whereas in inclusion, the student who is deaf is actually placed in a classroom with hearing students. Inclusion may involve an assortment of services including interpreters, notetakers, teacher aides, teachers of students who are deaf, and consultants, but these services are provided within the context of the regular classroom.

Before 1975, although there had been attempts to educate students who were deaf in regular schools, about 80% of students who were deaf in the United States were being served in special schools (Cohen, 1995). This changed with the passage that year of PL 94-142. The "Education of All Handicapped Children" act called for all children to be educated as appropriate in the "least restrictive environment" (LRE), which meant to the greatest extent possible with their "non-handicapped" peers. Although the law resulted in some students who were deaf being educated in the regular classroom, many students with hearing losses were put in self-contained classrooms or resource rooms within regular schools and had contact with hearing students only during non-academic activities. In 1995, more than 60% of students who were deaf were educated in the regular public schools (Cohen, 1995), although it is not clear how many were in being served in a true "inclusion" model.

Inclusion emerged from the Regular Education Initiative (REI) of the 1970s and 1980s and the modification of PL 94-142, the Individuals with Disabilities Education Act (IDEA) of 1990. The application of inclusion to the student who is deaf has been a source of ongoing debate, particularly as to how to interpret "least restrictive environment."

Two general positions have emerged from the debate on inclusion. One position is that all students with disabilities have the right to go to school with their non-disabled peers. The other position is usually labeled "full inclusion" and is stronger in its position that all students with disabilities should go to regular schools. The first position is consistent with the range of placements which emerged from PL 94-142 and IDEA, while the latter position is generally consistent with the eradication of all "special education," including the closing of special schools for students who are deaf.

WHO CAN CHOOSE AN INCLUSION OPTION?

Should parents wish their deaf child to be in an inclusion program, they would indicate their preference during discussions with their school district and/or special education intermediate unit concerning their child's recommended assignment and individualized education program (IEP). Some school districts or intermediate units may indicate that an inclusion option is not available for deaf children in their area or that inclusion is not appropriate for that parent's deaf child. Nothing in existing laws supports excluding children who are deaf from an inclusion placement.

On the other hand, the absence of such regulations does not mean that inclusion is appropriate for all children with hearing losses. Parents should make the decision based

upon an informed consideration of all options and discussions with various educational professionals. If the local education agency (LEA) does not agree to an inclusion placement and parents continue to believe that inclusion is right for their deaf child, they have the right to due process to challenge the LEA's decision. The LEA may recommend inclusion, even though the parents do not think inclusion is appropriate. Once again, if the parties involved cannot reach agreement, the decision for placement would go to due process.

WHAT ARE SOME POSSIBLE BENEFITS OF INCLUSION?



1. Opportunity for the student who is deaf to live at home.

Those students who are deaf who attend a special school that is beyond commuting distance must live at the school during the week. Students in an inclusion placement in their local school are able to be with their families during the week.



2. Opportunity for communication with the hearing world.

Daily association with hearing students in an inclusion setting might help students who are deaf to better develop their ability to communicate with hearing people, leading to skills they will need in later years.



3. Opportunity for learning the standards of the hearing world.

Students who are deaf and attend schools for children who hear may be able to master the norms of hearing society better than those who are immersed in the culture of a special school for students who are deaf.



4. Availability of academic or vocational programs. Students who are deaf may find a wider range of academic or vocational programs in their home school district than in their nearest special school.

WHAT ARE SOME LIMITATIONS OF INCLUSION?



1. Potential for isolation from teachers, peers, and other members of the school community. Inclusive environments may not comprise individuals adept at communicating in deaf individuals' preferred language and mode of communication.



2. Opportunities for direct instruction are limited. Inclusion of deaf individuals often means receiving translated or transliterated messages through an interpreter or transliterator.



3. Opportunities for direct and independent interaction and communication with peers and the professional support staff are limited. Deaf individuals may constantly require an interpreter to communicate effectively with peers and professionals. School counselors, medical personnel, and administrators often are not able to communicate directly with a student who is deaf, which limits their access to support

services that are readily available to other students.



4. Availability and quality of support staff. There may not be an adequate supply of qualified interpreters or other support staff in the local school district to provide a desirable level of communication access to the educational process.

WHAT ARE SOME QUESTIONS TO ASK BEFORE CHOOSING THIS OPTION?

The first question a parent, professional, or other individual needs to ask when considering inclusion for a deaf child is whether this environment will provide the intellectual, social, and emotional development the student who is deaf needs and to which he or she is entitled?

To answer this important and multifaceted question adequately, several other related questions need to be addressed, including: What is the individual's hearing level and ability to use residual hearing? What is the individual's preferred mode of communication, and is it practiced in the environment? Will the individual have access to captioning services, notetakers, hearing aid services, TTYs, and the use of other assistive devices? What is the individual's academic level? What is the level of direct communication that will occur in the environment between the individual, teacher(s), and peers? Will the individual's language abilities and needs be adequately addressed? Are there a sufficient number of other children who are deaf of similar age and level with which the individual can socialize? Is the school staffed by certified and qualified personnel who are trained to work with the student who is deaf? Does the school provide a full range of assessment instruments and techniques designed for use with students who are deaf? Are there personnel trained to conduct such assessments in the individual's preferred language and mode of communication? What level of access will the individual have to curricular and extracurricular offerings? Will there be deaf role models in the environment? Are there any teachers or administrators in the environment who are hard of hearing or deaf who may serve as role models?

The most important issues, when contemplating inclusion for a deaf individual, are related to language and communication. At the very least an individualized education program (IEP) for a child who is deaf must consider the following (U.S. Department of Education, 1992):

*Communication needs and the child's preferred mode of

communication

*Linguistic needs

*Severity of hearing loss and potential for using residual hearing; academic level

*Social, emotional, and cultural needs, including opportunity for peer interactions and communication.

A local education agency (LEA) or state education agency (SEA) cannot presume that inclusion is appropriate for a child who is deaf without incorporating the above issues in its IEP process. Likewise an LEA or SEA cannot presume that a deaf child belongs in a center or residential school for deaf children.

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- Dr. Nowell is currently chairperson of the Department of Special Education and Clinical Services, Indiana University of Pennsylvania. Dr. Innes is an assistant professor of education, Gallaudet University.

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Effects of American Sign Language on
Hearing Children's Pre-Literacy Skills as an
Early Education Intervention Model

Jenning Prevatte

June 23, 2005

Abstract

The purpose of this paper is to explain the positive impact of American Sign Language (ASL) as an early intervention to encourage strong pre-literacy skills in young hearing children with and without disabilities. The research interpreted in this paper will illustrate the effect of ASL on pre-literacy skills and why it is an effective intervention. The hope of the author is for early childhood educators to embrace this intervention and seek opportunities to promote pre-literacy skills in all young children from birth to six.

For over 30 years using sign language with young hearing children has been an area of interest in the education field. There have been several research experiments, both qualitative and quantitative on the use of sign language with typical and special needs hearing children birth to six. The research has demonstrated that there are many benefits to utilizing sign language with hearing children. Some of the benefits noted in the research are developing larger vocabularies, possessing greater self-esteem, and increased phonemic awareness and spelling skills. The research has deemed that American Sign Language (ASL) is a useful intervention for early education curriculum and is not only for deaf children. ASL is currently recognized as the third most utilized language in the United States according to Daniels (2004). The focus of this paper is on the positive effects of ASL in an early education literacy curriculum.

American Sign Language (ASL) is defined as a natural, living language that has all the structures of other languages. Linguists have recognized ASL as a “bona fide language” since 1960 according to Daniels (2001). ASL has similar properties as English. However it uses a visual-gestural modality to express phonology, morphology, and syntax (Daniels, 2001). It is noted in the research that children’s motor and visual skills develop before their oral skills, therefore making ASL a natural language for young children to be taught (Lawrence, 2001). Furthermore their motor skills are more adaptable to signing before writing, consequently making it beneficial to learn how to spell while using ASL finger spelling (Daniels, 2001 and Lawrence, 2001).

Pre-literacy skills are composed of receptive and expressive vocabulary, phonemic awareness, knowledge of letter-sound relationship, and the ability to combine this knowledge to read words in print. The implications of using ASL in an early

education literacy curriculum are beneficial according to research done by Daniels, DiCarlo et al., Vernon et al., and Lawrence. An overview of their research is noted in

Table 1.

Table 1: Implementing American Sign Language as an Early Education Intervention

Title	Developer	Comments
Dancing With Words Signing for Hearing Children's Literacy	Daniels, Marilyn (2001)	A book compiling the results of Dr. Daniels studies on the effect of sign language on hearing children's language development and useful implications for teachers and parents. The book includes an introduction to sign language as a natural, living language and develops the readers knowledge on the history and structure of ASL. Dr. Daniels continues to provide information on several research experiments she has completed with typical and special needs children in preschool and kindergarten settings. The book continues to provide information on theory and application in the school and at home.
Happy Hands: The Effect of ASL on Hearing Children's Literacy	Daniels, Marilyn (2004)	A study that investigated the effect of ASL instruction on typical hearing kindergarten children's literacy in four areas: receptive English vocabulary, expressive English vocabulary, ASL ability, and English emergent reading level. This experiment was modeled after an experiment done in the United Kingdom in 1997, Sing in Education. The U.S. study was conducted in a public school in rural Vermont with 41 full day Kindergarten students. There was a non-treatment group and treatment group. A difference between the U.K. experiment and the U.S. experiment was that the U.K. teacher delivered instruction in voice off BSL; since she was deaf (BSL was her native language). In the U.S. the teacher delivered instruction with voice on and voice off, she was fluent in ASL, however it was not her native language.

Effects of Manual Signing on Communicative Verbalizations by Toddlers With and Without Disabilities in Inclusive Classrooms	DiCarlo, Stricklin, & Banajee (2001)	A study that evaluated the effects of ASL on toddler's verbalizations in an inclusive preschool setting. This study was conducted because there were a few parents concerned that ASL would effect a typical child's verbalizations in a negative way. The results showed that this was not the case and showed support for using sign language in an inclusive classroom with both children with and without disabilities as an effective means to support communicative verbalizations.
Using Sign Language in Your Classroom	Lawrence (2001)	This paper is a review of the research on ASL in elementary classes of hearing children. It discusses using the manual sign language alphabet in early education to support learning the phonetic sounds of the alphabet. The paper notes that "sign language appears to enhance brain activity on both sides of the brain and has been proven successful in a total communication reading program for students with learning disabilities" (Lawrence, 2001). Included in the paper are several activities to use within the classroom setting to support early literacy.
Using Sign Language to Remediate severe Reading Problems	Vernon, Coley, & DuBois (1980)	The paper focused on identifying remediation strategies that can be used with students with academic achievement difficulties. The study looked at the use of sign language and the manual alphabet to improve spelling skills of learning disabled children. The results supported the use of sign language and the manual alphabet in remediation of reading problems. It also provided activities for application in the classroom.

Models

Dancing With Words, Singing for Hearing Children's Literacy by Dr. Marilyn

Daniels was selected because it compiled major research findings in this area. Daniels describes experimental studies conducted since 1991 on ASL as a factor in acquiring English and the effect of sign language on hearing children's language development. Chapter 4 recounts these studies in chronological order. Daniels first study in 1991 was completed with fourteen hearing children who learned ASL in preschool. The Peabody Picture Vocabulary Test (PPVT) was utilized to assess the children's acquisition of English and the influence of ASL. The scores indicated a positive relation between ASL and acquisition of English. According to Daniels (2001) the mean score for a typical child should be 100 or close to it. According to the PPVT the children that learned ASL in preschool had a mean score of 109.57 with a standard deviation of 7.38. Daniels (2001) noted that this was "a powerful number that clearly indicates that children who learned ASL as preschoolers acquired larger English vocabulary than is expected of typical children."

With these results Daniels decided to continue her research on the effects of sign language on hearing children's language development and developed a second experiment. "The investigation attempts to discover whether adding sign language to pre-kindergarten curriculum increases hearing children's receptive English vocabulary" (Daniels, 2001). In this experiment Daniels expand the participant number to sixty and incorporate a pre and post-test using the revised Peabody Picture Vocabulary Test (PPVT-R). The pre-test showed that prior to ASL intervention there were little variances in the children's vocabulary (2001). Daniels experiment followed a model where the

teacher utilized sign language when making requests, giving commands, during read alouds, and teaching the manual alphabet. The model included a control group and a treatment group of pre-kindergarten morning and afternoon classes from the same school. The results of the experiment were statistically significant in support of using sign language to promote language development in pre-kindergarten classroom (Daniels, 2001). According to Daniels (2001) the mean scores on the PPVT-R for the signing classes were 94.6 (morning) and 92.3 (afternoon) and the mean scores for the nonsigning classes were 78.9 (morning) and 77.6 (afternoon), with standard deviations of 10.2 and 13.1. "A two-way analysis of variance indicated that the main effect of signing was statistically significant, $F(1, 56) = 22.06, p < .001$, and that the main effect of class meeting time and the interaction effect were not statistically significant, $F(1, 56) = .32, p = .58$, and $f(1, 56) = .03, p = .87$ " (2001). Daniels notes that "the scores from both sign classes were 15 points higher than those from the classes receiving no sign instruction" (2001).

Daniels continued her research on the effects of ASL on hearing children's literacy by conducting an investigation on the effect of ASL instruction on typical hearing kindergarten children's literacy in four specific areas, which were receptive English vocabulary, expressive English vocabulary, ASL ability, and English emergent reading level (Daniels, 2004). This experiment was modeled after an experiment conducted in the United Kingdom (U.K.) in 1997, Sign in Education. In the Sign in Education project a deaf teacher fluent in British Sign Language (BSL) instructed a class to hearing students using BSL. The results showed significant support in using BSL in the kindergarten classroom (Daniels, 2004).

Daniels replicated this model to see if the effects would be the same in the United States (U.S.) as they were in the United Kingdom (U.K.). Two testing measurements were used during this experiment, the revised Peabody Picture Vocabulary Test (PPVT-R) and the Marie M. Clay (1993) Reading Recovery Observation Study (RROS). The RROS assesses letter identification, word test, and concepts about print and is used to “determine their emergent reading level for first grade placement” (2004). This was a nine month experiment with two full day kindergarten classes, one the treatment group and the other the non-treatment group. The treatment group received ASL instruction and the non-treatment group did not, otherwise the teaching practices in both classes were the same (2004). “The original research design called for a control class for aspects 1, 2, and 4. Although efforts were made to secure permission to use the school’s other kindergarten class as a control class, the administration refused. They feared the teacher of the proposed control class would be upset if her students did poorly, including morale issue” (2004). Therefore the results focus on pre and post-test for the treatment group in areas 1, 2, and 3 and then results from the RROS (aspect 4) were compared between the treatment group and the non-treatment group (2004).

Results of this study were noteworthy, see table 2.

Table 2: Results of Daniels 2004 Research

Four areas of interest	Treatment Group (Pretest)	Treatment Group (Posttest)
Receptive English Vocabulary	Standard score of 101.9 with a standard deviation of 4.47. Age equivalent score of 68.0 months (5 years, 8 months).	Standard score of 115.9 with a standard deviation of 11.62. Age equivalent score of 93.8 months (7 years, 8 months).
Expressive English Vocabulary		Mean score 104.08 with a standard deviation of 10.72 on the AGS Expressive Vocabulary Test. There was no significant difference between expressive and receptive vocabulary (Daniels, 2004).
Sign Language Evaluation		"Students demonstrated and average rating on their ASL ability based on their age and the video-taped task" (2004).

Emergent Reading Level (RROS)	Treatment Class	Non-treatment class
	Mean score of 50.6 with a standard deviation of 2.29	Mean score of 33.2 with a standard deviation of 15.4

"A directional t-test for independent groups showed a significantly higher score for the treatment class ($t(16) = 3.55, p.001$)" (2004). In a nine month period students in the treatment class gained two full years of vocabulary growth, their receptive English vocabulary increased 14 points, and their emergent reading level results demonstrated a significant difference in letter identification (2004).

Further research in this area has been conducted by McCay Vernon, PhD, Joan Develin Coley, PhD, & Jan Hafer DuBois, MEd (1980). Vernon et al. found that using ASL manual alphabet improves learning in disabled children's spelling skills (Vernon et al., 1980). The study was conducted in Berkeley County, West Virginia and children were chosen based on three criteria: 1) classified as visual learners, 2) demonstrate

poor spelling skills, and 3) were assigned to a second-grade spelling test in the regular classroom (1980). The treatment took place with three resource room teachers who were voluntarily trained in ASL finger spelling. The treatment plan was to incorporate finger spelling into their typical spelling instruction. The qualitative results were positive. “All three teachers reported that the children were able to read and finger spell the words after the third instructional period” (1980).

Another model that supports the use of ASL on communicative verbalizations is a study conducted by Cynthia F DiCarlo, Sarintha Stricklin, & Meher Banajee in 2001. DiCarlo et al. conducted a study in an inclusive childcare program involving toddlers with and without disabilities. The purpose of their study was to “evaluate effects of manual signing by staff in an inclusive setting on the frequency of verbalizations among children with and without disabilities” (DiCarlo et. al., 2001). The primary focus was the effect of ASL on the children without disabilities vocabulary since there had been concerns communicated by parents (2001). The study was conducted in order to show parents that ASL has a positive effect on children with and without disabilities and it increases communicative verbalizations rather than decrease those (2001).

The researchers categorized verbalizations in three categories: 1) vocal sound that was directed at another person, 2) manual signs or sign approximations, and 3) voice output communication aide (VOCA) through the use of an AlphaTalker (2001). “Results suggested that manual signing by staff in an inclusive early intervention classroom did not result in decreases in the verbalizations of toddlers without disabilities. Verbalizations among the toddlers without disabilities continued at the baseline frequency while the signing program was in effect even though these children

began to use manual signing” (2001). This study illustrated that incorporating ASL sign language into an early childhood education curriculum is not harmful to children.

In fact, “research studies have shown that sign language enhances brain activity on both sides of the brain” (Lawrence, 2001). Lawrence further states the findings of research done by psychologist David P. Corina of the University of Washington in Seattle, “sign language comprehension is accompanied by substantial neuronal activity in parts of both the right and left hemispheres of native signers...” (2001). An MRI was used to compare the blood flow in the brain while volunteers watched the use of ASL in sentences (2001). “We know that when both sides of the brain are operating, students have more ways to make connections for learning. If we link the written word with sign, it will increase students’ chances of success in reading” (2001).

Effectiveness of ASL Sign Language

As educators it is important to incorporate interventions that will facilitate the highest level of learning. Educators can use ASL as an intervention to develop larger vocabularies, better phonemic awareness, knowledge of letter-sound relationships, and enhance spelling skills. It is believed that incorporating ASL sign language and finger spelling into and early education literacy curriculum will be rewarding for both the teacher and the students. An important question answered in Daniels book Dancing With Words Signing for Hearing Children’s Literacy is, “why? Why is sign effective?” (Daniels, 2001). In Chapter 9 Daniels explains some of the known facts and theories of why sign language is an effective intervention in literacy.

The first known fact is memory, “memory is related to language storage and retrieval. It is known that languages are stored in the left hemisphere of the brain”

(2001). Daniels sights research done by Hoemann (1978), according to the research Hoemann found that ASL had a memory store and English had a memory store (2001). This study plus future studies concluded that “all languages, whether spoken or signed, are categorically coded and housed in distinct memory stores even in the earliest stages of their acquisition” (2001). This is an important fact, because “as a result of the way the human brain stores all languages, the young student learning a new language has two places to look for the information” (2001). This dual memory store is beneficial to young children because it creates a “built-in redundancy that establishes two independent language sources for children to use for search and recall” (2001).

A second known fact is growth or brain growth. The visual components of sign language create “an increase of brain activity by engaging the visual cortex and presenting an additional language to the young learner” (2001). With increase language activity the brain is stimulated and the formations of synapses or connections among the brain cells are created. “Using sign language and English in tandem provides a much richer language base of brain activity and brain growth and development” (2001).

There are several other known facts that answer why sign language is an effective intervention for young children such as, visual, movement, meaning, play, and hand. The visual aspect of sign language has a close link to brain growth and memory. “Research on ASL shows sign is perceived in a visuospatial manner by the right hemisphere of the brain and subsequently processed by the left hemisphere.” (2001). The known facts that Daniels states incorporate the known fact

that children and people have different learning styles. Essentially ASL is an effective intervention in an early education literacy curriculum because it meets the needs of all children at their individual learning levels and supports their individual learning styles.

Methods of Using ASL Sign Language to Support Pre-Literacy Skills

Research has proven using ASL as a supportive factor in an early childhood literacy curriculum increases pre-literacy skills in the area of vocabulary development, phonemic awareness, letter-sound relationship, and spelling ability. Various types of methods were referred to in the literature, such as incorporating ASL finger spelling when teaching the manual alphabet or using sign language for commands or requests. ASL can be utilized in many different ways. Lawrence list a variety of activities to use in a classroom setting as well as a game invented by Kathleen Brennan called SIGN-O, “which incorporates sign language in a game” similar to BINGO (2001). The activities that Lawrence brought to the attention of educators during the Annual Convention and Expo of the Council for Exceptional Children in April of 2001 are as followed:

- Signed phonetic alphabet. During this activity the teacher teaches phonetic alphabet while incorporating the signed alphabet.
- Learning signed words for reading. This activity promotes learning sight words through finger spelling and read a-louds.
- Spelling hangman. This is an activity that reinforces the learning in the activities listed above. Students play hangman via standard rules, however they need to sign the letter they guess.

- Reading books with sign language. The teacher chooses a book to read a-loud to the class and introduces the main vocabulary of the text with sign language. As you read the students can sign the vocabulary of the text. A good way to begin is using books with sign language in them. Lawrence references two books, Anase the Spider: Why spiders stay on the ceiling by Collins, S.H. (1997) or Fruits and Vegetables by Collins, S.H. (1997).
- Choice menu board, developed by Hodgdon, L.A. (1998) and published in his book Visual strategies for improving communication: Volume I: Practical supports for school and home. Essential this activity incorporates sign into daily routines and centers in the classroom. A teacher would label activities or centers with a picture, the written word, and the ASL sign to reinforce vocabulary.

Lawrence justified these activities by sighting the research of Greenberg, Vernon, DuBois, and McKnight (1982) and Brennan and Miller (2000) that state “involving sign language in a total communication reading program has proven successful for students with learning disabilities and mental retardation” (2001). She also pointed out the importance of using sign language in a classroom setting allows the teacher to “add a kinesthetic aspect to the lesson (of reading), and putting to use more of the learning modalities, makes language easier to acquire” (2001).

Discussion

For over 30 years research has continued to prove that ASL is a valuable addition to an early education curriculum. It supports receptive and expressive language development in typical hearing children as well as children with disabilities. ASL incorporates kinesthetic, visual, and auditorial learning and makes language

more tangible. “When each letter of the alphabet is taught to children in this fashion (ASL finger spelling) with an accompanying key sign word that demonstrates the letter’s primary sound, emerging readers have a key to unlock the visual motor and phonological properties of letters (Daniels, 2001). Daniels also states that “a child’s familiarity with the letters of the alphabet and speech sounds or phonemes is a strong predictor of the child’s future reading capacity” (2001).

Incorporating ASL into an early education literacy curriculum as a valuable intervention is a meaningful and enlightening choice. The effect it has on children’s learning is powerful and has long term benefits. It is a valid early intervention to be used with all children, both typical and children with special needs. A quote from Gallaudet based on his convictions and stated in Daniels paper in 2004 sums up the importance of meeting the needs of all children any way educators can. “The more varied the form under which language is presented to the mind through the various senses, the more perfect will be the knowledge of it acquired, and the more permanently will it be retained” (Daniels, 2004). ASL sign language imparts students the ability to achieve substantial literacy skills at an early age that will sustain them for life.

Implications

ASL is a powerful intervention that facilitates learning in early education by meeting the needs of all learning styles. Research shows that ASL enhances pre-literacy skills and helps build the bridge of communication with pre-verbal children. An effective intervention model for developing pre-literacy skills ASL is easily incorporated into all aspects of language development. Educators need to integrate

ASL into all daily routines and activities. Research suggest that labeling objects and activities, using ASL finger spelling to teach the alphabet and spelling, as well as using ASL sign to teach vocabulary during read a-louds and guided reading groups is beneficial for all learning styles and stimulates and increases brain growth.

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Look Who's Being Left Behind: Educational Interpreters and Access to Education for Deaf and Hard-of-Hearing Students

Brenda Schick

University of Colorado at Boulder

Kevin Williams

Boys Town National Research Hospital

Haggai Kupermintz

University of Haifa

For many deaf and hard-of-hearing students, access to the general education curriculum is provided, in part, by using the services of an educational interpreter. Even with a highly qualified interpreter, full access to the content and social life in a hearing classroom can be challenging, and there are many aspects of the educational placement that can affect success. The skills and knowledge of the educational interpreter are one critical aspect. This study reports results from a study of approximately 2,100 educational interpreters from across the United States. All the interpreters were evaluated using the Educational Interpreters Performance Assessment (EIPA), an evaluation instrument used to assess and certify classroom interpreters (see Schick, Williams, & Bolster, 1999). The results show that approximately 60% of the interpreters evaluated had inadequate skills to provide full access. In addition, educational interpreters who had completed an Interpreter Training Program had EIPA scores only .5 of an EIPA level above those who had not, on average. Demographic data and its relationship with EIPA ratings are explored. In general, the study suggests that many deaf and hard-of-hearing students receive interpreting services that will seriously hinder reasonable access to the classroom curriculum and social interaction.

In many countries, educational services for students with hearing loss have changed markedly in the past few decades. For example in the United States, since

Brenda Schick and Kevin Williams developed the original EIPA when they both worked at Boys Town National Research Hospital, where the tool is currently managed by Frances Beurivage. This research was supported by the U.S. Department of Education, Office of Special Education Programs, Programs of National Significance award to Brenda Schick, Project Director (H325 N010013). Correspondence should be sent to Brenda Schick, Speech, Language, and Hearing Sciences, 2501 Kirtredge Loop Road, University of Colorado, Boulder, CO 80309-0409 (e-mail: Brenda.Schick@colorado.edu).

the first federal law that mandated access to local community schools, many deaf and hard-of-hearing (deaf/hoh) students moved to those schools from center-based and residential educational programs (Jones, Clark, & Stolz, 1997; Moores, 1992). Along with changes in the location of education, students with a hearing loss have been educated within the same classrooms as their hearing peers in increasing numbers. These changes have occurred in other countries, such as the United Kingdom (Powers, 2002), Australia (Power & Hyde, 2002), and Spain (Fernandez-Viader & Fuentes, 2004). For many of these students, both deaf and hard of hearing, provision of an educational interpreter is required to support classroom communication. Theoretically, the educational interpreter is one aspect of providing access to all teacher and peer communication, which allows the deaf/hoh student to learn in the same manner as his or her hearing peers. The deaf/hoh student has access to the classroom content, and hopefully also to the classroom social life, but many have raised questions about learning through an interpreter and how the educational experience may differ given that it is mediated and is not direct (Kurz, 2004; Marschark, Sapare, Convertino, Seewagen, & Maltzen, 2004; Ramsey, 1997; Schick, 2004).

Providing full access to a hearing classroom is very complex, and it involves more than just the skills of the educational interpreter (La Bue, 1998; Marschark, Sapare, Convertino, & Seewagen, 2005; Ramsey, 1997; Roy, 2000; Schick, 2004; Winston, 2004). Classrooms are complex social environments and they involve

discourse styles that are unique to K-12 education. Accurate representation of all classroom communication is extremely challenging for many reasons. For example, classroom communication typically is distributed among multiple speakers, and an understanding of the content requires a student to integrate what many individuals say, not just the teacher. It is very difficult to represent this type of discourse, which often involves shifts in register as well as speaker. Interpreting results in a time delay for the deaf/hoh student, which can affect turn taking. In addition, teachers' and students' communication contains a great deal of information about their beliefs, expectations, and understanding that is not often contained in their language or vocabulary but rather in aspects of speaking, such as tone of voice and prosody (see Schick, 2004). This type of information seems to be particularly difficult for interpreters to convey. Deaf/hoh students have the additional challenge of coordinating visual attention to the interpreter and visual materials. In reality, we should acknowledge that even in the best of situations, deaf/hoh students who access the curriculum via an educational interpreter have a different educational experience than their hearing peers.

Clearly, the quality of access to classroom content is highly dependent on the skills of the educational interpreter. These skills involve much more than the ability to interpret, although that is probably one major predictor of access. Educational interpreters need to have a complex constellation of interpreting performance skills, language skills, as well as knowledge of education and child development across an age span (Antia & Kreimeyer, 2001; Hayes, 1992; Schick, 2001; Seal, 1998; Witter-Merithew & Johnson, 2005). They need to be able to help implement an educational program for a diverse range of students, including those who depend fully on sign communication to those who have intelligible speech and can manage some communication situations independently. About two decades ago, a national commission was formed and funded by the U.S. Congress to review the state of education of the deaf. This commission stated that access to a classroom was a "mockery" if an interpreter was not qualified (Commission of Education of the Deaf, 1988, p. 103).

Even in optimal learning circumstances, we know very little about what students can learn through an

interpreted education. There is evidence that deaf/hoh students may have more difficulty learning information through an interpreter in comparison to what their hearing peers learn, even from the same lecture (Marschark et al., 2004, 2005). For example, Marschark et al. (2004) investigated a group of postsecondary students who watched either an interpreted or transliterated¹ version of a college lecture, as produced by experienced and Registry of Interpreters for the Deaf (RID) certified interpreters.² Although the results showed no differences in learning of the material in the interpreted versus transliterated versions, the deaf/hoh students learned less than their hearing counterparts. For the hearing college students, the test scores ranged from 85% to 90%, but for the deaf/hoh students, the scores were lower, 60–75%. Marschark et al. conducted a thorough analysis of what background variables might be related to comprehension but found that none of their variables accounted for the differences, including: reading levels, degree or age of onset of hearing loss, parental hearing status, use of assistive listening devices, or the age at which sign language was learned. They also reported that the deaf/hoh students were less able to predict their own level of comprehension after watching a lecture than their hearing peers. It seems that it can be more difficult to learn and to know what you know when you learn through an interpreted lecture. Of course, the participants were college students at a university with respectable entrance requirements, and clearly the students had language and cognitive skills well beyond those of a student in elementary or middle school. The fact that learning through an interpreter might be more difficult highlights the need to have highly qualified professionals, qualified to work in a K-12 setting.

There is little information about how well children learn through an interpreter. There is some research that shows that children can learn in both direct and interpreted situations. Kurz (2004) investigated how much information deaf children learned when a lesson was interpreted compared with when a lesson was presented directly in American Sign Language (ASL). She investigated a group of 19 deaf children, with approximately half enrolled in direct-communication educational settings and the other half attending interpreted-educational settings. She compared how

well they learned new information from lessons presented by two certified secondary science teachers, one a deaf educator, with an MA degree in secondary science education, who was a native signer, and the other a hearing science teacher who taught in a public school and has had educational interpreters work in some of his classes. The hearing teacher's lessons were interpreted into ASL by an interpreter who had RID certification and RID-Legal certification and who was a native signer with more than 25 years of experience. Kurz used a within-subjects design in which each student saw three different lessons with direct communication and three other lessons in the interpreted condition. She found that all students were able to learn in the interpreted condition. For two of the six lessons, the students learned more information in the direct instruction condition; comparisons in the other lessons did not reach statistical significance. Seven of the students scored comparably in both conditions, with scores that differed by less than 10%, and 2 of the 7 students scored higher in the interpreted condition. Interestingly, and possibly relevant, Kurz also found that the signing in the direct communication condition took almost twice the time as the spoken English version, even though the deaf and hearing educators worked together to balance the content and vocabulary in the lessons. This study shows that when the interpreter is highly qualified, even elementary-age students can learn in an interpreted setting. It is also important to note that Kurz used the traditional teacher lecture, which is not reflective of current educational practice that incorporates distributed discussion, student participation, and social interaction. It may be possible that an interpreted education provides reasonable access to classroom content when the teacher lectures, which Winston (2004) believes is the form of classroom discourse that is the most accessible to interpreting, but lecture may also be a relatively poor form of teaching, particularly with young children.

However, looking at learning over a longer time line indicates that in reality, an interpreted education may not support learning as well as it should. Research shows that the use of an interpreter is associated with differences in writing skills for deaf/hoh students. A study of the written language in deaf/hoh children in

Grades 3–12 found that those students who used an interpreter also scored significantly poorer in measures of grammar, vocabulary, and story construction (Antia, Reed, & Kreimeyer, 2005). For the ability to produce grammatically correct sentences, the proportion of the variance explained by the use of the interpreter (.215) was greater than the variance accounted for by the student's hearing loss (.141) and grade (.096). Only gender and grade accounted for a larger proportion of the variance. Of course Antia, Reed, and Kreimeyer acknowledge that students who use an interpreter might be more likely to sign, which changes the educational experience for the student in more ways than just the addition of an interpreter. Yet they found that the degree of hearing loss explained only a portion of the data. They questioned whether the quality of the interpreted instruction might be a factor in causing this relationship. Further research might help us understand the impact of an interpreted education on skills that develop over long periods of time, such as writing and storytelling ability.

Another limiting aspect of research on learning through interpreting is the problem that most studies have included only deaf participants. We know that many hard-of-hearing students also utilize interpreters even when they have intelligible speech and can communicate well in some situations. For them, situations that involve complex topics and vocabulary, distributed discussions, noise, multiple speakers, to name a few, may be much more challenging and require an interpreter. We know nothing about how a student with usable hearing learns through an interpreter, but it might be different than what we see with deaf students.

It is clear that access to a general education classroom is different for deaf/hoh children, and perhaps reduced, even when a highly qualified interpreter is utilized. However, we know that many students receive interpreting services from individuals who are not highly qualified or in many situations even minimally qualified. In a study of the performance skills of interpreters working in public schools from 1991 to 1994, Schick, Williams, and Bolster (1999) found that even when school districts and interpreters volunteered to be evaluated, the majority (56%) could not meet minimum standards suggested by the state of Colorado at

that time (3.5 on a 5.0 scale). It is important to note that in the United States, Colorado was virtually alone in the early 1990s in recognizing a need to establish minimum performance standards for interpreters who work in K-12 settings. Federal standards in the United States did not and still do not provide much guidance or criteria in terms of minimum requirements for interpreters who work with children. In fact, recent federal laws in the United States have established professional requirements for many individuals who work in the public schools; and the No Child Left Behind Act of 2001 specifies that only “highly qualified” staff work with children. But despite defining what constitutes *highly qualified* for many professionals and para-professionals, No Child Left Behind does not mention educational interpreters or attempt to define what highly qualified might mean for interpreting performance standards.

Fortunately, the number of states requiring minimum standards for educational interpreters has increased dramatically since the Schick et al. (1999) study of Colorado interpreters. Currently throughout the United States, approximately 25 states³ require some form of minimum performance standards. Typically, states have ensured performance skills by using one or more of a set of nationally recognized evaluation tools, which include RID certification or the test designed by the National Association of the Deaf (NAD),⁴ both of which were designed for adult community interpreting. Twenty-one states require some specified level of performance on the Educational Interpreter Performance Assessment (EIPA; Schick et al., 1999), a tool designed specifically for the educational setting.⁵ Most states have adopted a level of 3.5 as the minimum standard.

This article investigates the performance skills of educational interpreters who work in K-12 settings, both in elementary and secondary settings. It reports national data from a large sample of educational interpreters using the EIPA. Three primary questions were addressed by this research.

1. Given the positive changes in public laws, requirements, and awareness, how probable is it that a student who is deaf/hoh will receive services from an interpreter who is highly qualified?

2. What are the demographic characteristics of these interpreters in terms of completion of Interpreter Training Program (ITP) or a BA degree, years of experience in a general interpreting setting versus a K-12 setting, and how do demographic variables relate to performance?

3. How well do interpreters perform in domains particularly relevant to education, such as the use of prosody, discourse mapping, finger spelling, managing distributed discourse, and representing key concepts?

Method

Participants

All individuals who requested and completed an EIPA evaluation from 2002 through 2004 were included in this analysis, resulting in a sample of 2,091 interpreters, from more than 35 states and Canadian provinces; 25 states have at least 10 evaluations in the sample. Demographic data were available for a subset of these interpreters ($n = 1,505$) and are summarized in Table 1. Most of the interpreters were Caucasian (79%), with approximately 15% of the interpreters reporting membership in a minority ethnic group. A large proportion of the group reported that they had completed an ITP (46%), and a smaller proportion had completed a BA degree (26%). In general, the interpreters represent a broad range of experience,

Table 1 Demographic background information for a subset of the participants ($n = 1,505$)

	Frequency	%
Female	1,390	92.4
Male	79	5.2
Age—average	37 years	
Deaf family member	449	29.9
Years interpreting—average	7.9 years	
Years educational interpreting—average	6.5 years	
ITP graduate	692	46
BA degree	391	26
African American	79	5.2
Asian	17	1.1
Caucasian	1,183	78.6
Hispanic/Latino	71	4.7
Native American	10	0.7
Other heritage	52	3.5

reporting on average 7.9 years of general interpreting experience ($SD = 7.0$) and 6.5 years in an educational setting ($SD = 5.6$). They were a relatively young group, with a mean age of 37 years ($SD = 10.4$). As a comparison, in 1992, the average age of a K-12 teacher in Colorado was 41 years, with 11.1 years of experience (Colorado Department of Education website).

Measures

The EIPA is a tool that is designed to evaluate the interpreting skills of educational interpreters in a classroom setting (Schick & Williams, 1992, 2004). The EIPA is not limited to any one sign language or system, which is essential given the diversity of sign languages used by deaf/hoh students in the public schools. The tool can be used to evaluate interpreters who use predominantly ASL, typically viewed as the sign language of the adult deaf community, predominantly Pidgin Sign English (PSE)⁶ the type of English signing found among the adult deaf community, or Manually Coded English⁷ (MCE; see Bornstein, 1990). There are also different versions of the EIPA for interpreters who work in an elementary school versus a secondary setting. Videotaped stimulus materials are used to collect two samples of the interpreter's work. The overall procedure is as follows:

- Interpreter chooses grade level and language.
 - Collect two video samples of interpretation using EIPA videotapes.
- Video samples are evaluated using the EIPA rating form by three evaluators.
- Interpreters receive an overall score and specific feedback.

One sample is of the interpreter's Voice-to-Sign skills, translating or transliterating spoken English in the classroom environment into sign communication. The other sample is of the interpreter's Sign-to-Voice skills, translating or transliterating what a deaf child signs into spoken English. A specially trained evaluation team, using a standardized EIPA rating form, evaluates both samples. See Schick and Williams (2004) or www.classroominterpreting.org for a more thorough description of the tool and procedures.

The EIPA rates 37 different skill areas using a Likert scale of 0 (*no observable skills*) to 5 (*advanced skills*). See the Appendix for a summary of what each level represents in terms of skills. The score for each skill is the average of the three evaluators ratings. There are four main domains on the rating form that are evaluated:

- Voice-to-Sign Grammar: syntax, spatial grammar, and nonmanual aspects of prosody.
- Sign-to-Voice: production of a spoken English version of a student's signed communication.
- Voice-to-Sign Vocabulary: the range and depth of vocabulary, finger spelling, and numbers.
- Voice-to-Sign Overall: aspects of interpreting that are discourse based, such as discourse mapping and cohesion.

The EIPA design has several unique aspects that arguably contribute to its validity. First, it uses videotape segments of authentic classrooms to elicit an interpreting performance. Because of this, teachers are using their typical register and discourse style, which means that their language, vocabulary choice, interaction, and presentation style is a realistic representation of what interpreters are likely to encounter in typical classrooms. Because language and discourse directed at adults differ from that directed towards children and youth, it is more ecologically valid to use stimulus materials of actual classroom pedagogy. For example, EIPA videotapes of both the elementary and secondary classrooms include sections where there is distributed discussion and the interpreter must represent the other students' communication as well as the teacher's. A second aspect that contributes to validity is that the EIPA videotapes involve interviews of real deaf/hoh children and youth. Children sign differently than adults. In particular, elementary-school-age children continue to make grammatical errors and they are just beginning to understand how to monitor and repair conversations. Further, many deaf/hoh students have mild to severe language delays, which can make them more difficult to understand. A third contribution to EIPA validity is its use of current research and linguistic analysis to target the 37 particular skills that are assessed. For example, recent linguistic inquiry has shown that sign languages frequently use spatial

mapping to represent discourse concepts, such as comparing and contrasting concepts (Winston, 1995), or to signal new topics or convey information about time lines. Because conceptual development is a major goal of education, this linguistic feature has educational relevance. Another group of items on the EIPA evaluates how well interpreters use prosody in sign language to communicate affect, grammar, and speaker intention. These aspects of communication are essential to the development of language (Fernald, 1989; Fernald & McRoberts, 1996), as well as a Theory of Mind, or social cognition (Schick, 2004). Similarly, research on the development of social cognition indicates that knowing the personality characteristics of classmates is key to social-emotional and personality development (Hartup, 1996; Newcomb & Bagwell, 1995). Therefore, an EIPA item assesses how well the interpreter represents communication when a hearing classmate is talking. The EIPA is a tool that was constructed for the K-12 environment, and many aspects of its design focus on aspects unique to that environment.

Procedures and Analysis

All participants requested an evaluation from the EIPA Diagnostic Center,⁸ and all evaluations were conducted at a site in the participant's regional area, proctored and managed by trained test administrators. Most of the participants were either working as educational interpreters or hoping to be employed as one. Prior to the evaluation, each participant selected the grade level (elementary or secondary) and the language (MCE, PSE, or ASL), with the help of preview materials. Each interpreter was provided with lesson plans for each classroom to be interpreted (five classrooms for the elementary version and two classrooms for the secondary version). Voice-to-sign sample and sign-to-voice samples of the interpreter's performance were sent to the EIPA Diagnostic Center where the performance was evaluated. Each sample was rated by a team of three trained evaluators. Two evaluators were hearing and held RID certification and one was deaf or hard of hearing, fluent in PSE and ASL. All raters were trained until they reached satisfactory performance levels. All scores, for each evaluator and for each rated item, were entered into a computer database for later analysis.

Reliability and Validity

In order to determine interrater reliability, a group of 20 videotaped evaluations were evaluated by two independent rating teams, who were blind to the fact that the individual had been previously rated. Estimates of interteam correlations and internal consistency are shown in Table 2. Interteam rating correlations, ranging from .86 to .94 for the different domains evaluated in the EIPA, revealed a high degree of consistency in ratings across teams. These results demonstrate that the EIPA is a highly reliable instrument when two independent teams rate the performance.

In addition, measures of internal consistency for the entire group of raters were calculated, as shown by Cronbach alpha estimates in Table 2. Internal consistency is an assessment of how reliable a tool is across all items comprising a domain. A high coefficient indicates that the individual items are performing reliably, that is, each item contributes in a consistent way to the overall EIPA domain score. A Cronbach alpha coefficient (essentially the average of all split half correlations) above .70 is considered acceptable, and a value of .90 is considered to be very good. Results showed very high coefficients of internal consistency, ranging from .93 to .98. Overall, results show that the EIPA assessment is highly reliable, both in terms of agreement among teams of raters and in internal consistency of skills comprising each domain.

Correlations between measured domains were calculated for the average scores as well as the total EIPA score, as shown in Table 3. Interdomain correlations suggest that they tap different aspects of performance, rather than each domain reflecting a common overall rating. This is especially true of the Sign-to-Voice domain, which had only moderate correlations with Grammar (.57) and Vocabulary (.56). This indicates that the Sign-to-Voice domain contributes unique

Table 2 Interrater reliability and internal consistency

	Interteam correlation (interrater reliability)	Internal consistency (coefficient alpha)
Grammar	.94	.97
Sign to voice	.86	.98
Vocabulary	.90	.93
Big picture	.92	.94
Grand total	.93	.98

Table 3 Correlations among the four domains of the EIPA

	Grammar	Sign to voice	Vocabulary	Overall
Grammar		.57	.83	.93
Sign to voice			.56	.76
Vocabulary				.83
Overall				

variance to the total EIPA scores. Higher correlations were found for the Overall Picture domain with the other three domains, as well as between Vocabulary and Grammar.

Additional evidence on validity comes from examining the performance of previously certified interpreters. EIPA total scores are shown in Figure 1 for all interpreters who reported some form of RID certification ($n = 42$). For the group, the average EIPA score was 4.2 ($SD = .06$). As can be seen in the figure, there was somewhat high variability in the Sign-to-Voice domain, which indicates that RID-certified interpreters may not reliably interpret what a deaf/hoh student signs. Only one interpreter scored the maximum rating of 5 in all four domains, and very few consistently received a 5 in other domains. The results

indicate that a RID-certified interpreter could be expected to obtain a score above 4.0 but would not be expected to easily achieve high ratings in all skills and domains. This pattern adds to the validity argument in that, as expected, RID-certified interpreters score in the Advanced range on the EIPA but do not reach the ceiling in most instances.

Results

A multivariate analysis of variance (MANOVA) was conducted with the average score in each domain and the score in each domain (Grammar, Sign-to-Voice, Vocabulary, and Overall) as the dependent variables. Independent variables included the grade level, language, age as a categorical variable, how long the individual had been interpreting, as well as whether the individual had completed an ITP or a bachelor's degree (BA).

EIPA by Language and Grade Level

Comparisons of EIPA scores according to language (ASL, PSE, MCE) and grade (Elementary and Secondary) for each skill domain (Grammar, Sign-to-Voice,

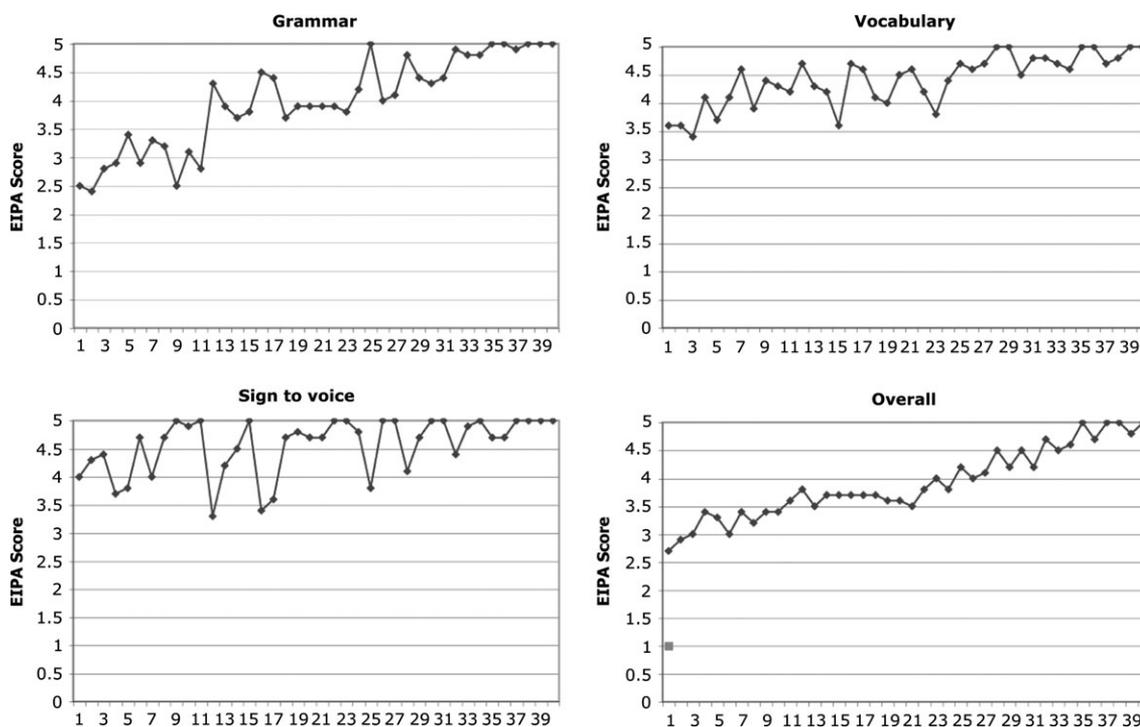


Figure 1 EIPA scores for each domain and total EIPA for all interpreters who reported RID certification ($n = 42$).

Vocabulary, and Overall) are shown in Figure 2. Results from the MANOVA showed a significant main effect for language for the Grammar domain, $F(2, 1088) = 3.873$, $p = .02$, effect size = .007, and the Overall domain, $F(2, 1088) = 3.000$, $p = .050$, effect size = .005. Post hoc analysis confirmed that MCE interpreters received lower skill ratings than the PSE interpreters who were lower than the ASL interpreters in every domain except vocabulary, where ASL and PSE interpreters were equivalent but both were significantly higher than MCE interpreters.

There was also a significant main effect for grade in two domains, Sign-to-Voice, $F(1, 1088) = 43.746$, $p = .000$, effect size = .039, and Overall, $F(1, 1088) = 6.423$, $p = .011$, effect size = .006. Secondary level interpreters had significantly better skills in each of these two domains than interpreters who took the Elementary version. Finally, there was a significant Grade \times Language interaction in all domains except Vocabulary, Grammar: $F(2, 1088) = 3.237$, $p = .04$, effect size = .006; Sign-to-Voice: $F(2, 1088) = 6.55$, $p = .001$, effect size = .012; and Overall: $F(2, 1088) = .946$, $p = .007$, effect size = .009. Post hoc analysis confirmed that MCE interpreters in the Elementary levels had skill levels that were significantly lower in comprehending and interpreting children than interpreters in other grades and languages ($p < .05$).

It should be noted that the effect sizes for the significant comparisons were quite low, ranging from .001 to .039, indicating that although these comparisons are significantly different (due to the large sample

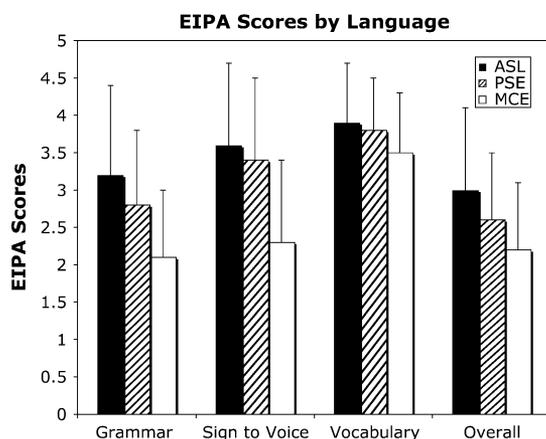


Figure 2 EIPA scores for each language and domain.

size), the variables of grade and language account for only a small portion of the variance in the data.

EIPA Scores and Demographic Descriptors

For 62% of the interpreters, there were both EIPA evaluations and demographic data available ($n = 1505$). EIPA total scores were compared for those interpreters who reported completion of an ITP or a BA degree, as shown in Figure 3. Results from a MANOVA showed no significant differences for interpreters with a BA degree for any domain ($p = .387-.640$). There was a significant effect for completing an ITP in two domains, Grammar, $F(1, 1088) = 2.895$, $p = .053$, effect size = .003, and Vocabulary, $F(1, 1088) = 5.083$, $p = .024$, effect size = .005. ITP graduates score higher on the EIPA in only those domains. However, the effect size for these comparisons was not large, which means that only a small proportion of the variance is predicted by these variables. There was no significant BA \times ITP program interaction ($p = .272-.970$). A small proportion of individuals reported a BA degree in interpreting ($n = 32$), but their average EIPA score was no different than those who had completed an ITP only ($M = 3.4$, $SD = .81$) and the variability was fairly high.

The data also were analyzed, using a MANOVA, to determine whether years of general interpreting experience was related to the total EIPA score. Results

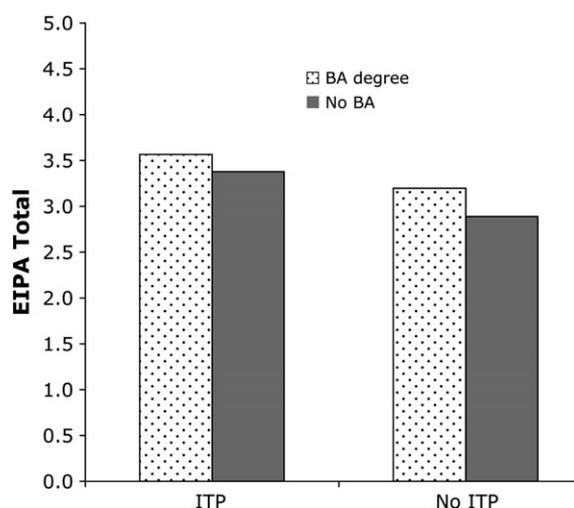


Figure 3 EIPA total scores by BA degree and ITP graduate ($n = 1,287$).

approached significance for Sign-to-Voice skills, $F(5, 1088) = 2.129, p = .060$, meaning that interpreters who worked longer also were better able to interpret children. There were no significant differences in EIPA scores for the other three domains ($p = .170-.935$). Age was a slightly stronger predictor, and the results were significant for each domain, Grammar: $F(5, 1088) = 4.466, p = .000$, effect size = .020; Sign-to-Voice: $F(5, 1088) = 3.324, p = .006$, effect size = .015; Vocabulary: $F(1, 1088) = .000$, effect size = .022; and Overall: $F(1, 1088) = .000, p = .021$. However, like other measures, the effect sizes were small. Post hoc testing for age group revealed that the 20-year-old interpreter group scored significantly higher than the 40- and 50-year-olds ($p < .05$) in every domain, but not higher than the 30- or 50-year olds. Clearly, there is not a simple “younger is better” relationship here.

The results of the MANOVA showed that the background variables predicted different amounts of variance for the different domains (R^2 : Grammar = .279; Sign-to-Voice = .388; Vocabulary = .230; Overall = .323. This means that at best, these background variables predict between a quarter to a third of the overall variance, leaving approximately 60% of the variance unexplained.

Proportion of Educational Interpreters Who Meet Minimum Standards

Most of the states that have adopted the EIPA to establish minimum performance standards have set a minimal level at 3.5 (13 of 17 states); two states require an overall EIPA rating of 4.0, and only one state requires 3.0 as minimum qualification. Figure 4 shows the proportion of the interpreters evaluated within each skill level. Only 17% of the interpreters would be able to meet minimum standards if set at 4.0, and 38% would meet minimum standards if set at 3.5.

Changes in EIPA Scores on Subsequent Testing

There were 205 interpreters who elected to take the EIPA a second time typically because they did not meet state minimum standards the first time. The average time between tests was nearly 1 year ($M = 11.4$ months, $SD = 6.8$) with waits ranging from 1 month to nearly 3 years, which represents the limits of the

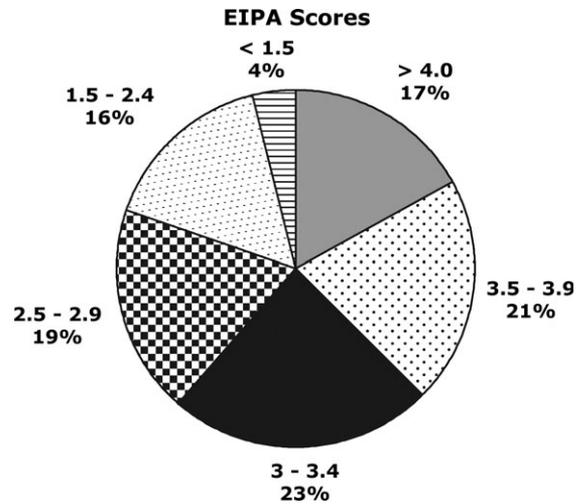


Figure 4 Proportion of interpreters passing at each level.

database. As shown in Figure 5, many interpreters showed gains from Time 1 to Time 2 (64%), but a small proportion demonstrated better skills at Time 1 than at Time 2 (27%). As a whole, subsequent testing revealed moderate gains of .3 EIPA level with a large variance ($SD = .65$). A Pearson correlation showed that the length of time between testing was not significantly correlated with improvement in EIPA scores ($r = -.08, p = .26$), meaning that interpreters who waited a longer period of time did not necessarily receive a better EIPA score. There was a significant negative correlation between the interpreter’s EIPA score at Time 1 with the subsequent Time 2 score ($r = -.48, p < .0001$), meaning that interpreters who scored lower on the Time 1 testing were more likely to get a higher score on subsequent testing than those interpreters already scoring in the upper range. Such a result is expected when performers strive to meet a preset cut-score criterion, demanding low performers in Time 1 to demonstrate larger gains in order to meet the standard.

EIPA Scores for Skills With Particular Educational Relevance

Although the results show that, in general, educational interpreters are not highly qualified, it is important to specifically look at skills that may have direct educational relevance. For this analysis, several individual items on the EIPA were averaged to create composite

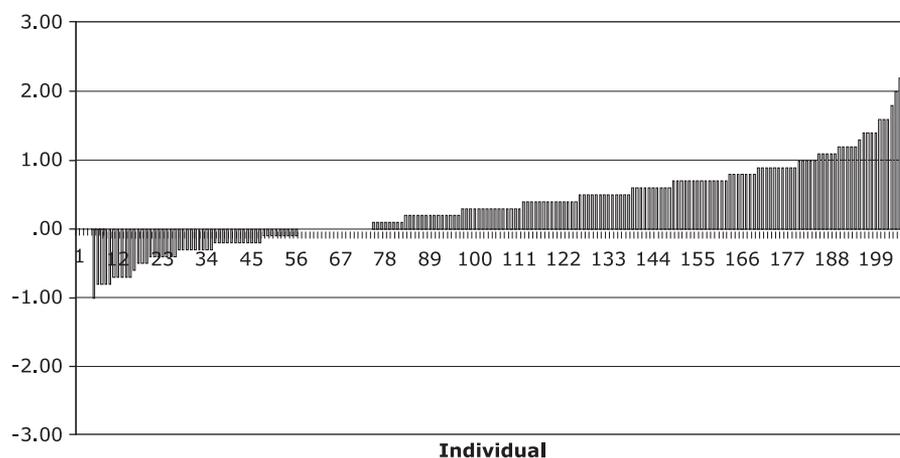


Figure 5 The difference between the EIPA total score for Time 2 minus Time 1 ($n = 205$).

domains in key areas: use of prosody, discourse mapping, finger spelling, indicating who is speaking, and representing key vocabulary. Results, as shown in Table 4, reveal particularly low skills in some domains that could be considered essential to learning. There were relatively low ratings for prosody, for example, which should be considered particularly important for younger language learners. Discourse mapping, or using space to represent cohesion, discourse structure, and relationships, was particularly problematic for all interpreters with average scores falling in the Advanced Beginner range on the EIPA. Similar results were found for representing key vocabulary and indicating who was speaking. Clearly, educational interpreters have difficulty with those aspects of the classroom content that are essential for development and academic learning.

Discussion

Skill Levels of Educational Interpreters

Despite the important role that educational interpreters have in the education of deaf/hoh children,

it is clear that many of them do not have the interpreting skills necessary to work effectively in classrooms. The majority of the interpreters evaluated in this study scored below an EIPA score of 3.5, considered a minimal proficiency level in many states (we do not really know what minimum level of proficiency would ensure access). Only 38% of the interpreters were able to meet that standard, even though the vast majority of the individuals who were tested were already working in classroom settings. The average EIPA score in this group of interpreters was 3.2 ($SD = .8$), with an average of 7.9 years of interpreting experience. The educational result is that the majority of students who use interpreters do not have access to the same classroom content as their hearing peers. The quality of the interpretation will most likely put these students at greater academic risk. That is, the accommodation that is intended to provide access to a free and appropriate education cannot ensure access to basic classroom content.

We also found that interpreters' skills vary by grade level and language. Interpreters who took the elementary version of the test scored significantly

Table 4 EIPA ratings (mean and SD) for skills particularly relevant to educational settings

Grade and language	Finger spelling	Discourse mapping	Prosody	Who is speaking	Key vocabulary
Elementary ASL	3.5 (1.0)	2.4 (1.3)	3.1 (1.2)	2.9 (1.4)	2.8 (1.1)
Elementary PSE	3.3 (.9)	1.9 (1.0)	2.7 (1.0)	2.6 (1.1)	2.6 (.9)
Elementary MCE	3.0 (.9)	1.4 (.9)	2.3 (1.1)	2.2 (1.1)	2.2 (.9)
Secondary ASL	3.4 (1.1)	2.7 (1.3)	3.3 (1.2)	2.9 (1.3)	2.9 (1.2)
Secondary PSE	3.2 (1.0)	2.2 (1.0)	2.9 (1.0)	2.6 (1.1)	2.7 (.9)
Secondary MCE	3.0 (1.1)	1.7 (1.2)	2.3 (1.3)	2.2 (1.4)	2.4 (1.0)

lower than those taking the secondary version for two domains, Sign-to-Voice and Overall, although the effect sizes were small indicating that these differences are not that great, there is a great deal of within-group variability. The most straightforward interpretation of this result is that elementary interpreters are less skilled than secondary interpreters. This means that the interpreters with the least adequate skills may be assigned to work with younger children, with the mistaken assumption that interpreting at that level is easier or that younger children have “less language” so that it is acceptable if the interpreter has less language.

It is possible that the differences between the elementary and secondary interpreters are, in part, the result of the task demands. There are significant differences between elementary and secondary classrooms in terms of teacher discourse styles, the tendency to teach interactively, and the use of child-directed patterns of prosody that are used in teacher-directed discourse with younger students (Cazden, 2001). There is a greater proportion of distributed discussion and co-constructed meaning. Teachers in the elementary classroom spend more instructional time providing feedback and monitoring of students’ behaviors. Teachers in secondary classrooms tend to use more adult-like discourse forms with less-exaggerated prosodic structures. Middle school and secondary teachers tend to use more lecture-oriented teaching styles, which Winston (2004) indicated might be easier to interpret. It may be harder to interpret the content of an elementary classroom because of these classroom discourse issues. Of course, without further data, we cannot address this issue.

Participants also differed significantly in EIPA scores according to the language used, with significant differences in Grammar and Overall but not in Sign-to-Voice or Vocabulary. The ASL interpreters scored the highest on most measures, followed by PSE interpreters, with MCE interpreters scoring the lowest. In fact, MCE interpreters scored significantly lower than the ASL and PSE interpreters in their ability to understand elementary-age deaf children, scoring in the advanced beginner range as a group. Interpreters at this level would have difficulty understanding substantial portions of the student’s communication (which may cause the student to simplify language and con-

tent in order to be understood). However, it is important to note that although there were significant differences for both grade level and language, the effect sizes were rather small. This indicates that there are differences among the groups, but the differences may not be functionally significant. Basically, there are both good and poor interpreters at both grade levels and using all languages, although MCE interpreters as a group have the weakest skills. It is notable that for both ASL and PSE interpreters, approximately half completed an ITP (45% and 47%) but only 20% of the MCE interpreters had done so. It is important to keep in mind that only 10% of the interpreters in the current sample requested an MCE evaluation; most interpreters took the PSE version.

It is a reasonable question to ask whether the results for MCE interpreters reflect a bias in the EIPA towards ASL and PSE. This does not seem likely for several reasons. The differences in vocabulary scores among the ASL, PSE, and MCE interpreters were not that great ($M = 3.9, 3.8, \text{ and } 3.5$, respectively). The MCE interpreters have vocabulary skills nearly equal to the other interpreters. However, there are considerable differences in the scores in other domains, such as in the ability to understand and interpret the student signer (ASL = 3.2, PSE = 2.8, MCE = 2.1), the ability to use prosody correctly (ASL = 3.2, PSE = 2.8, MCE = 2.3), and the ability to use discourse mapping (ASL = 2.6, PSE = 2.0, MCE = 1.5). Our interpretation is that many MCE interpreters have learned sign language as a vocabulary translation exercise in which an English word is replaced with its sign equivalent. MCE systems, by design, attempt to faithfully represent the actual English words and order. However, these interpreters often lack prosody in their signing, which makes their signing look like a string of unrelated vocabulary items. In addition, the lack of prosody impacts their ability to represent the intention of the speaker, which results in lower scores on other EIPA items, such as “representing key concepts.” The EIPA requires these elements and weights them consistent with their importance to development and education. It is highly likely that the MCE interpreters would score higher if the evaluation tool looked at vocabulary use only. However, even the manuals designed to teach MCE, such as the Signing Exact English (SEE) II manual (Gustason

& Zawolkow, 1993), advocate the use of prosody and space in signing.

From the demographic data, we know that this sample is fairly representative of educational interpreters. Their ages and gender are similar to those reported by Jones (2004). However the current data are ethnically more diverse (approximately 15% ethnic minorities) than the samples reported by Jones (approximately 96% "White"). They also have more years of experience than the Jones samples: the current study reports a mean of 7.9 years of experience ($SD = 7$) in general interpreting whereas Jones reports 2–5 years. Jones sampled from predominately the Midwest, and the current sample reflects greater geographic diversity, which might better represent the population of educational interpreters in the United States. Given the large sample size ($n = 2091$) and geographical diversity, it is likely this sample reflects the national population.

It is equally important to consider the other half of these data, those educational interpreters who demonstrate skills above the EIPA standard used by many states, a 3.5 standard, who comprise a full 38% of the sample. There are likely many examples of deaf/hoh students who are receiving excellent services from interpreters who are well qualified to provide them. Interpreters in the Advanced range of the EIPA (4.0–5.0) score similar to individuals who have RID certification. The data indicate that interpreters who hold RID certification score high scores ($M = 4.2$) when evaluated using the EIPA. Concurrent validity with the RID is very good, indicating that the EIPA is not an easier test.

Interpreter Training, Education, and Skill Levels

Many of the interpreters in this sample had completed an ITP (46%), and 26% had completed a BA degree. Interpreters who had attended an ITP scored significantly higher in two domains, Grammar and Vocabulary, than those who did not, but only .4 of an EIPA level, with a very small effect size, which means that although these differences are significant, these are no strong differences between the groups. The ITP graduates were no different than nongraduates in their Sign-to-Voice skills, which means that they do not re-

liably understand children's signing. In fact, the average score of ITP graduates was below the common 3.5 standard, meaning that the typical ITP graduate would not meet states' minimal standards. As a group, the interpreters had 7 years of experience, which indicates that students who have just completed an ITP might score even lower. Similarly, those participants who had a BA degree scored higher than those who did not (by .3), even though they did not score above 3.5, yet the differences were not significant. The only group of interpreters who had an average score above 3.5 were those who had completed an ITP and also had a BA degree, although as a group, they were not significantly different than just having a BA or completing an ITP.

It is somewhat disheartening that formal interpreter training in the United States does not ensure that an educational interpreter will enter the classroom meeting minimal standards. This means that K-12 schools will have a very difficult time hiring an educational interpreter who is ready to work even if they hire an ITP graduate. There are many possible reasons for this, and researchers have speculated that 2-year programs cannot meet our training needs (see Davis, 2005; Jones, 2004). Many students enter an ITP with limited skills in sign communication. Most ITPs in the United States are 2-year associate degree programs in community colleges, not 4-year bachelor degrees. These programs attempt to teach language skills and interpreting skills in a very short period of time. However, neither the national RID nor the Conference of Interpreter Trainers (CIT), the U.S. organization of interpreter trainers, has recommended a 4-year ITP. It is also notable that the curriculum recommended by the CIT (2005) does not include any competencies related to the K-12 setting, rather it is designed exclusively for adult community interpreting. There are few programs in the United States that test exit competencies in interpreting, which makes program evaluation difficult. In addition, ITPs rarely provide specialized training in the types of discourse, and language is common in the schools and with children who are still developing language skills (recall that Sign-to-Voice skills did not differ between ITP graduates and nongraduates). In addition, Davis (2005) observed that most ITPs focus mostly on ASL and not the range of transliteration needed to work as an educational

interpreter. Clearly our model of interpreter training is inadequate and does not address the needs of a large number of consumers—families, children, and schools—who need an educational interpreter who is qualified to provide access.

On the other hand, we believe that it is incorrect to conclude that ITPs necessarily provide inadequate training. Many ITPs are squeezing as many skills as possible into a 2-year program. Rather we would suggest that we need to ask a different question: What training is required to ensure that schools are able to hire graduates who are ready to work? Clearly our current training model cannot ensure this. These data also indicate that a generic BA degree added to a 2-year ITP program will probably not result in significant improvement over the current situation. It is hard to see how the qualifications of interpreters working in public schools will improve until we design a real 4-year program that allows skill development and focus on the developmental aspects of K-12 interpreting. It is likely that this is an impossible task within a 2-year program and that, as a field, interpreting training needs to adopt a model that focuses on exit competencies and not just an accumulation of sufficient credits. In addition, training programs should ensure that interpreters are prepared work within an educational and developmental model.

Improving EIPA Scores

Even though many of the interpreters who work with children do not have performance skills that are necessary to provide children access, it is not clear that they are receiving training that significantly improves their skills. For participants who took the EIPA a second time, the duration of time between the first and second test did not predict higher scores, even though the second testing was as much as 3 years later. That is, individuals who waited longer did not score higher on the second test. We do not have data that details the types of in-service training these participants received prior to the second test. It is possible that training helped specific interpreters, but as a group, more time did not help.

There are other data that help us understand what it takes to improve EIPA scores. One ITP has collected pretraining and posttraining EIPA scores from partic-

ipants in an intensive educational ITP, developed by Johnson and Witter-Merithew (2004). They designed an ITP program for working educational interpreters, delivered using a mixed distance education and intense summer onsite sessions, which included 16 credit hours of skill development and 14 hr of content knowledge over a 3-year time period. Participants were assessed prior to entering the program and when they completed the program using the EIPA.⁹ For 31 individuals in Cohort 2 (2000–2003), the average gain was .8 of an EIPA level, nearly one level higher. In comparison, the interpreters in the current study made a gain of .3 of an EIPA level. Clearly, making significant and meaningful improvements in interpreting skill requires a curriculum with scope and sequence, as well as time and intensive training.

Accessing an Education

The results of this study are in sharp contrast with the role that educational interpreters have in the education of a deaf/hoh student. Many working interpreters have performance skills that will result in a fragmented message that is likely to have distortions, omissions, and simplifications of the teacher's message. An investigation of those skills with particular relevance to language and cognitive development in an educational setting found particularly low EIPA scores. The participants' ability to use finger spelling was not very different than their overall skills, which is positive given the strong relationship between finger spelling skills and reading vocabulary in deaf/hoh students (Sedey, 1995). However, other skills that are relevant to development and education were not as strong. All the participants scored low on the use of discourse mapping and prosody, both essential to convey meaning in ASL, PSE, and MCE. Participants also had difficulty indicating who is speaking, which is essential to understand distributed discussion and to know the personalities and characteristics of peers (Schick, 2004). Also, relatively low ratings were found for the ability to represent key vocabulary, important for recognizing key concepts and teacher emphasis. These data indicate that the educational interpreters had considerable difficulty representing those aspects of the message that have direct relevance to classroom instruction.

Quite simply, educational interpreters with inadequate interpreting skills can and do render the classroom content incoherent (La Bue, 1998; Langer & Schick, 2004; Napier, 2002, 2004). Interpreters with weak performance skills do not simply modify the teacher's message so that it is simpler. There are many omissions of concepts and concepts that are not understandable in the interpreted version. These random errors, distortions, and deletions must have a large, detrimental affect on a young learner, especially one who may already be behind his hearing peers. The classroom content, as it is delivered to the student, is unlikely to be the same as what the hearing peers are receiving.

The fact that it is children and youth who are receiving these inaccurate interpretations is also troubling. Hearing, deaf, and hard-of-hearing children are still learning how to use language in the elementary years, and school provides an essential form of linguistic input for all children. Even typically developing hearing children increase their language skills as a result of the teacher's input. Research has shown that the complexity of the teacher's language in preschool is significantly correlated with the children's comprehension of complex syntax at the end of the school year (Huttenlocher, Levine, & Vevea, 1998; Huttenlocher, Vasilyeva, Cymerman, & Levine, 2002). Other research shows similar effects for hearing students in first through third grade (Dorval & Eckerman, 1984). That is, even young hearing children are learning to comprehend and use grammar and discourse from the teacher's language model. In addition, language in the elementary school classroom is quite complex in terms of grammar, vocabulary, and discourse structure. A student with delayed language may not be able to learn very well from a language model that can only provide ungrammatical and simplified input.¹⁰

The language errors, omissions, and distortions in an unqualified interpreter's signing may be very difficult for a deaf/hoh student to recognize and discuss with either the interpreter or the teacher. Young hearing children do not have the cognitive skills to realize when a message is incomprehensible and they should ask for clarification. For example, Markman (1977, 1979) found that hearing children who are in third and sixth grade do not spontaneously recognize their own comprehension failure when they are presented

with material that has obvious inconsistencies and contradictions. Markman concludes that the cognitive skills required to process and identify the source of the misunderstanding are complex and that even (hearing) preadolescents cannot manage this on their own (1979). This cognitive processing requires a student to monitor their comprehension, which requires metacognitive skills. They must maintain conflicting propositions in working memory in order to compare them and make inferences based on the information. Markman argues that preadolescent children may have the component cognitive skills, but coordinating them spontaneously is much more difficult (1979). She also concludes that comprehension monitoring has clear relevance for a child's ability to learn in school.

Of course, Markman studied hearing students who had age-appropriate language and perspective-taking skills, who were communicating directly with peers and teachers (1977, 1979). We know that many deaf/hoh students may have language delays compared with the hearing peers in their classroom. Research also shows that deaf children also show delays in their Theory of Mind skills (Courtin, 2000; Peterson & Siegal, 1999; Schick, de Villiers, de Villiers, & Hoffmeister, submitted manuscript), which will directly impact how they are able to consider information from various sources (Schick, 2004). In reality, the deaf/hoh student may be forced to monitor comprehension even more closely than his hearing peers, because the interpreted version is fragmented and often incorrect, which only increases the cognitive workload for a student who is already at educational risk. There is evidence that deaf students are less able to predict their comprehension than hearing peers (Marschark et al., 2004) and that adolescent students may overestimate their comprehension more than college-level students (Kurz & Langer, 2004).

Relevant to this discussion is the current model of interpreting that many interpreters advocate in which the responsibility for comprehension monitoring and negotiating clarification are the consumer's responsibility. The interpreter provides a faithful rendition, and if there are problems, the teacher and student should handle it. In many classrooms, interpreters convey classroom information but are not responsible for the student's comprehension, even when the interpreter knowingly misses and distorts content. In

reality, this model is more appropriate for an autonomous and independent adult than it is in an educational system that has a legal obligation to ensure learning. In fact, most educational interpreters do not have the training and expertise to support the kinds of comprehension probing that these students may need. Clearly, we need to develop a model of interpreting for children and youth that is educationally and developmentally appropriate and is able to accommodate the range of children we see in education today, including children who are hard of hearing or have cochlear implants.

Summary

Clearly, many deaf/hoh students are being left behind. It is likely that many students access their education through an interpreter who cannot provide full access. There are many reasons why we are faced with this current state of affairs. In the past, school districts and parents were poorly informed about interpreter qualifications, but that is rapidly changing. Clearly our current situation is, in part, due to our model of interpreter training in which the duration of the program dictates the skills rather than the skills we require dictating the duration of the program, not an attitude problem on the part of the schools. In addition, most ITPs provide limited exposure or training related to children. However, it is important to also note that whereas 25 states have minimum requirements for educational interpreters, we know of no state that requires teachers of the deaf to be fluent in sign language. It is easy to see the problems associated with an interpreted education, but it is also important to evaluate these problems in the context of the educational choices available to families. Although U.S. education law ensures educational access and choices for all deaf/hoh students, in practical reality, many families are faced with multiple compromises and no single ideal placement for their child.

In conclusion, there are many successful educational placements that involve an interpreted education. It is simplistic to see these challenges as an indictment for a form of educational access. The students interviewed by Kurz and Langer (2004) were well aware of the advantages and disadvantages inher-

ent in their educational placement. The question is how to serve these students, not whether we will serve them. Families and the educational team retain that decision, as well they should. However, these results are a sober reality check of what deaf/hoh students confront on a daily basis. We provide a student at educational risk limited access to classroom content. We increase their cognitive workload because the content is interpreted and not direct communication. We assume a model where the student monitors understanding. It is difficult to predict that any student could make adequate yearly progress in these conditions. There are excellent interpreters who work in K-12 settings, and there is evidence that students can learn through an interpreter. We need to learn more about a model of interpreting for children so that no child is left behind.

Appendix

Profile of Skills at Each Rating Level of the EIPA

Level 1: Beginner. Demonstrates very limited sign vocabulary with frequent errors in production. At times, production may be incomprehensible. Grammatical structure tends to be nonexistent. Individual is only able to communicate very simple ideas and demonstrates great difficulty comprehending signed communication. Sign production lacks prosody and use of space for the vast majority of the interpreted message. An individual at this level is not recommended for classroom interpreting.

Level 2: Advanced beginner. Demonstrates only basic sign vocabulary, and these limitations interfere with communication. Lack of fluency and sign production errors are typical and often interfere with communication. The interpreter often hesitates in signing, as if searching for vocabulary. Frequent errors in grammar are apparent, although basic signed sentences appear intact. More complex grammatical structures are typically difficult. Individual is able to read signs at the word level and simple sentence level, but complete or complex sentences often require repetitions and repairs. Some use of prosody and space, but use is inconsistent and often incorrect. An individual at this level is not recommended for classroom interpreting.

Level 3: Intermediate. Demonstrates knowledge of basic vocabulary, but may lack vocabulary for more technical, complex, or academic topics. Individual is able to sign in a fairly fluent manner using some consistent prosody, but pacing is still slow with infrequent pauses for vocabulary or complex structures. Sign production may show some errors but generally will not interfere with communication. Grammatical production may still be incorrect, especially for complex structures, but is in general, intact for routine and simple language. Comprehends signed messages but may need repetition and assistance. Voiced translation often lacks depth and subtleties of the original message. An individual at this level would be able to communicate very basic classroom content but may incorrectly interpret complex information resulting in a message that is not always clear. An interpreter at this level needs continued supervision and should be required to participate in continuing education in interpreting.

Level 4: Advanced intermediate. Demonstrates broad use of vocabulary with sign production generally correct. Demonstrates good strategies for conveying information when a specific sign is not in their vocabulary. Grammatical constructions are generally clear and consistent, but complex information may still pose occasional problems. Prosody is good, with appropriate facial expression most of the time. May still have difficulty with the use of facial expression in complex sentences and adverbial nonmanual markers. Fluency may deteriorate when rate or complexity of communication increases. Uses space consistently most of the time, but complex constructions or extended use of discourse cohesion may still pose problems. Comprehension of most signed messages at a normal rate is good, but translation may lack some complexity of the original message. An individual at this level would be able to convey much of the classroom content but may have difficulty with complex topics or rapid turn taking.

Level 5: Advanced. Demonstrates broad and fluent use of vocabulary, with a broad range of strategies for communicating new words and concepts. Sign production errors are minimal and never interfere with

comprehension. Prosody is correct for grammatical, nonmanual markers, and affective purposes. Complex grammatical constructions are typically not a problem. Comprehension of signed messages is very good, communicating all details of the original message. An individual at this level is capable of clearly and accurately conveying the majority of interactions within the classroom.

Notes

1. Interpreting generally refers to the cross-rendering of two languages, such as English and ASL. Transliteration refers to a form of signing that represents the spoken language directly, such as using English grammatical structures and vocabulary. However, English transliteration borrows heavily from ASL, especially in those elements that are not lexical, such as prosody, nonmanual adverbial and clausal markers, and the use of spatial mapping for discourse and cohesion.

2. The RID is a professional organization in the United States that certifies interpreters who work with adults. See www.rid.org.

3. There is no full compilation of state standards for educational interpreters, and it is difficult to summarize requirements succinctly. Using state-specific data provided by L. Johnson (personal communication, April 30, 2005) and supplemented with other sources, we know the following (although this is probably not completely correct). Twenty-five states require some type of national test for educational interpreters (RID, EIPA, or NAD). Of these, 12 allow only the EIPA, 2 allow only RID, 2 allow RID or NAD, and 9 require either the EIPA, RID, or NAD. Eight states require some national assessment or a state-managed quality assurance program.

4. The NAD no longer administers their evaluation tool, but is developing, with RID, a new set of certification tools for community interpreters.

5. In many states, such as Colorado, requirements include standards on content knowledge, continuing education, and/or university degrees in addition to performance standards.

6. PSE, as it is intended in the EIPA, is a form of nativized English, used by members of the Deaf community. We do not refer to the type of English signing that hearing people produce because they are not yet fluent signers. We consider PSE to be rule governed, complex, and capable of representing a hybridization of English and ASL. PSE has also been described as a contact language (Lucas & Valli, 1989). See Davis (2005) and Kuntze (1990) for interesting discussions about nativized English signing.

7. MCE is the form of English signing that was developed specifically to teach deaf students English in a more accessible form. It follows the syntax and semantics of spoken English, although it borrows aspects of ASL, such as prosody, adverbial and clausal nonmanual morphology, and some spatial mapping. Interpreters do not have to follow a specific MCE system perfectly and, as with ASL and PSE interpreters, how well the

message is conveyed is important, not just the ability to represent classroom communication using MCE signs.

8. Contact information for the EIPA Diagnostic Center: Boys Town National Research Hospital, 555 North 30th Street, Omaha, NE 68131, 402 452-5033 or e-mail: eipa@boystown.org.

9. The first assessment did not use official EIPA videotapes, but the ratings were conducted by the EIPA Diagnostic Center. The second assessment followed all current EIPA procedures.

10. Some school districts have adopted a rule that the student must have language skills within 1.5–2 standard deviations of his hearing peers in order to be placed in a full-time interpreted-education setting. Note that this is the same criterion used to qualify students as having special needs in the domains of language development, speech, and many other areas.

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Bilingual-Bicultural Education for Deaf Students: Why and Why Not

Alice Speights
University of Alabama
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[Introduction](#) * [Inadequacies of sign supported speech](#) * [The Total Communication Philosophy](#) * [Bilingual-Bicultural Education as a Return to Total Communication](#) * [Bilingual-Bicultural Approach for Deaf Children of Hearing Parents](#) * [Methods in the Bilingual Component](#) * [Methods in the Bicultural Component](#) * [Arguments Against the Bilingual-Bicultural Approach](#) * [Conclusion](#) * [References](#)

Introduction

Recently, deaf education has seen a new movement toward a bilingual-bicultural (bi-bi) approach. This approach assumes that American Sign Language (ASL) should be the first language of deaf children and that English should be taught as a second language through a fully accessible sign language, ASL. The ultimate goal is proficiency in both ASL and written English, as well as ease of socialization in both deaf and hearing cultures. Both languages and cultures are given equal value and prominence.

The approach became well known after the publication of Johnson, Liddell, and Erting's 1989 proposal, *Unlocking the curriculum: Principles for achieving access in deaf education*. Only 3% of the programs serving deaf students use such an approach (Schildroth & Hutto, 1996). Therefore, research-based methods are derived mostly from those for hearing second-language learners. The drive behind the movement is research on deaf children with deaf parents who learn ASL natively and on research against sign supported speech (SSS), also known as simultaneous communication.

This paper will examine the reasons behind bi-bi education, the population of deaf students who could benefit from it, the methods in the bilingual component and in the bicultural component, and the arguments against bi-bi education.

Inadequacies of sign supported speech

Sign supported speech (SSS) is the use of a form of manually coded English (MCE) simultaneously with speech in an attempt to increase the input comprehended by deaf students by providing three sources of the message: audition, speechreading, and signs. The purpose of MCE is to "facilitate deaf children's access to English by precisely representing it in a manual modality" (Mounty, 1986) and to "further expose

students to the language of reading, writing and of the larger society" (Eagney, 1987). Some forms of MCE are Seeing Essential English (SEE I), Signing Exact English (SEE II), and Signed English (SE). MCE uses signs adopted from ASL but lacks the productivity, inflection, and variability of ASL (Mountry, 1986). MCE follows English syntax (unlike ASL, which has a syntax separate from that of English) and English morphology.

However, MCE leaves a gap between the signed form and the spoken and written forms. Students show difficulty in transferring English in sign to the written mode. They "may not recognize the printed form of a word that they might know in sign. That is, they may have the vocabulary item in sign, but be unable to use it in writing and reading" (Akamatsu & Armour, 1987). Unlike the signed form, spoken language phonologically connects to the written form. Therefore, MCE does not provide similar transferability to written English.

SSS may also cause cognitive and perceptual strains in the expression and reception of the message, because signs require longer execution time than corresponding speech on account of the larger muscles used in sign (Mountry, 1986). This lag in sign execution requires either slower rate of speech or omission of signs (Eagney, 1987). Therefore, students do not receive an accurate representation of the target language, English.

Many teachers, however, may not try to represent English grammar but instead strive for effective communication (Akamatsu & Armour, 1987; La Bue, 1995). Therefore, teachers' MCE becomes much like ASL due to the visual accessibility and morphological efficiency of ASL. However, as La Bue (1995) found, this is not MCE nor ASL, and it is not either one very well. La Bue (1995) also found that many teachers have a tendency to concentrate on the spoken portion of SSS and therefore give the students with more hearing an unfair and unnecessary advantage over the other children.

La Bue (1995) found that fourteen year old students who had been exposed to SSS for many years continued to show great difficulty in understanding many of the most basic forms of English (wh-questions and commands). La Bue concluded that the theory of SSS's three language exposure points (audition, speechreading, and sign) could not be accurate and is therefore ineffective.

Schick and Gale (1995) found that children interacted the least during stories told in SEE II than in stories told in ASL and in SEE II with some ASL adaptations. These researchers concluded that pure SEE II is least interesting to children. This lack of interest could be due to the language's above-mentioned shortcomings.

While most teachers agree that gains have been made with the use of SSS, they realize that their students continue to achieve at an inadequate level of competence (Eagney, 1987). With so much evidence against SSS, the question is why is it still the prominent communication method in 54% of the programs serving deaf students (Schildroth & Hotto, 1996). La Bue (1995) found that many teachers do not base their teaching practices on research, but they rely on the teaching practices of their colleagues and on the beliefs of their teacher training programs. She proposed that "those trained within a belief system, with little access or availability to alternatives, are not easily swayed by contradictory scientific evidence."

The Total Communication Philosophy

Despite the current interchangeable use of the terms 'sign supported speech' and 'total communication,' TC originated by Roy Holcomb as a philosophy of eclectic methods of communication including, but not limited to, audition, speech and speechreading, MCE, written English, gestures, mime, ASL, and drawing. The idea was to use any and all types of communication in order to accurately and effectively convey the message. However, educators combined the first three of these methods into one singular method, SSS. Eventually, the terms TC and SSS (also simultaneous communication) became synonymous.

Bilingual-Bicultural Education as a Return to Total Communication

The bi-bi movement is really a return to the original essence of TC. Bi-bi programs continue the use of aural/oral training and sometimes even the use of MCE. However, the communication emphasis is on ASL and written English. This way, all students have equal access to academic material. That is, academic success is not dependent on aural/oral abilities. However, aural/oral training still exists in bi-bi schools, but it is held separate from daily classroom instruction.

Bilingual-Bicultural Approach for Deaf Children of Hearing Parents

Bilingual assumes ASL is the first language of deaf students. However, only deaf children of deaf parents are likely to acquire ASL as a first language naturally from their parents. But what about the 90% of deaf children whose parents are hearing?

Many deaf children of hearing parents receive little or no language input due to lack of accessibility. Fifty-three percent of the deaf students in the United States are classified as severely to profoundly deaf (Schildroth & Hutto, 1996) and only ten percent have deaf parents. This means that over half of the deaf children have little to no access to spoken English or ASL.

ASL is a natural language for deaf children

So what language do these children have when they arrive at school? Some researchers have found that even children without consistent ASL input have a tendency toward ASL, supporting ASL as a natural language.

Young children, hearing or deaf, instinctively construct a linguistic system different from the input language until, through assimilation and accommodation, the initial system conforms to the input language. However, Mountry (1995) found that in the case of deaf children, the target language, English, is either inaccessible to the child or inadequate for the child's language needs. Therefore, these children depend more heavily on their instinctive system and construct their language from this system instead of English. Deaf children prefer ASL because of its visually and cognitively clear and processible characteristics in morphology and use of space (Mountry, 1986; Schick & Gale, 1995). Mountry (1986) found these children develop morphological complexity without consistent exposure to ASL models. Schick and Gale (1995) found that children were more likely to interact and initiate interactions when ASL was used. They concluded that ASL signing makes communication more accessible to deaf children.

Native ASL signers surpass late learners of ASL

Research shows that native signers show better ease of transition between ASL and English and have a more advanced level of morphological development than signers who learn ASL later.

Hoffmeister and Moore (1987) found that deaf adults who learned ASL from their parents represented English more effectively than deaf adults of hearing parents when addressing a hearing audience. This shows that native signers are better bilinguals by showing ease of transition between the two languages.

Mayberry (1993) found that as age of ASL acquisition increased, the grammatical acceptability for the subjects' responses declined. The later learning signers made more mistakes in signs related in form (e.g. handshape) than they did in meaning (e.g. opposites). The opposite was true in native signers. Mayberry also found that individuals who do not acquire a language before early childhood have limited processing skills for language.

Galvan (1989) analyzed the differences in verb usage between deaf native signers and deaf late signers. He found that "late signers show cognitive development without morphological development." Therefore, these late signers tended to see signs in their whole form and did not attend to the variability that occurs in morphemes within signs.

Therefore, if deaf children acquire ASL as a first language, they can build upon that language base. However, children who do not acquire ASL as a first language have a weaker language base and show more difficulty in transferring between ASL and English.

Methods in the Bilingual Component

Hearing students receive linguistic instruction of their native language, English, in school. However, deaf students rarely receive this same type of instruction in their native language, ASL. Furthermore, many deaf students enter the educational setting without a solid first language at all. Therefore, these students especially require direct teaching of ASL. They cannot be left to learn it only from the environment. Hall (1995) and Akamatsu and Armour (1987) noted an absence in the direct teaching of ASL or in the linguistic analysis of ASL or MCE. Akamatsu and Armour (1987) also noted that even teachers who use some ASL in the classrooms may not utilize their own and their students' understanding of ASL to teach English.

Children who have a strong command of ASL as a first language can then transfer that knowledge of language to English. Hall (1995) tested deaf students in writing, story reading, story retelling and response to questions, sign language interviews, and cloze tasks. He found that deaf children used a type of English glossing of ASL which attributed to the students' limited abilities in English structure. He concluded that a bilingual approach of instruction would help students improve their English by enabling them to transfer their understanding of language through ASL to an understanding of the English language.

Akamatsu and Armour (1987) studied the effects of ASL to English translation intervention in deaf students. The intervention consisted of instruction in communication processes, the differences between MCE and ASL, transliteration and translation skills, and English grammar and editing. The students compared English to ASL and practiced writing by translating ASL into written English. After ten weeks, the

intervention significantly improved the students' written English grammar. The students also showed understanding of the ability to convey any idea in either ASL or English. The researchers also saw that students could successfully convey their own ideas in English by signing to themselves, translating their own signs, and then editing as needed.

Researchers have also proven positive effects of ASL storytelling for deaf children. ASL storytelling can be used with preschool children to motivate an interest in reading, and it can be used to explain the literature that older children read on their own.

Children who cannot read themselves can benefit from ASL storytelling because it opens the world of books in an accessible and interesting language. Schick and Gale (1995) studied preschool student interactions during storytelling in ASL, in MCE, and in a mixture of ASL and MCE in the same story. The researchers found that students were more likely to interact and initiate interactions when ASL was used. The researchers concluded that using ASL during instruction would increase their interest in communication and their willingness to initiate interactions. Such use of ASL during storytelling could increase the children's motivation to read books (Andrews, Winograd, & DeVille, 1994).

Older students who can read also benefit from ASL storytelling through prereading strategies of ASL summarizations. Andrews, Winograd, and DeVille (1994) studied the effects of this strategy in elementary school students. The teacher summarized fables in ASL without giving the moral of the story before the students read the fables on their own. The students then retold the stories and also told the moral of each fable. The results showed that the ASL summary technique improved the students' ability to retell the stories and to comprehend the moral lessons of the fables. The researchers concluded that the ASL summary technique improved memory and inference tasks.

Methods in the Bicultural Component

Bilingualism in ASL and English naturally lends itself to biculturalism (Deaf and hearing) by opening the hearing society to children through literacy and by making Deaf role models more available (Hall, 1995). However, some programs take a direct approach to cultural education by implementing deaf studies courses.

The deaf curricula at Cleary School for the Deaf in Nesconset, New York, and Kendall Demonstration Elementary School for the Deaf in Washington, DC, emphasize identity, proficiency in ASL, Deaf history, arts and literature of the Deaf Culture, and skills in the use of professional interpreters.

Before schools can implement bicultural programs, educators must have an understanding of both cultures. Sign Talk Centre for Children (STCC), a reverse mainstream program, found that many of the hearing staff members did not even realize that they have a culture. "As majority members, they have rarely had to think about the values and traditions that are part of their culture. Deaf people, as a minority group, are extremely aware of their culture because they have fought so hard for its recognition" (Evans). Therefore, STCC began training in cultural mediation to help bridge the gap between the two cultures and to prepare the staff for cultural issues among the children.

Arguments Against the Bilingual-Bicultural Approach

Several points of opposition confront the bi-bi approach. Among these are a lack of qualified teachers, an unknown standard definition of ASL, research against ASL as a natural language for deaf children, less auditory exposure for children with aural abilities, the possibility of ASL replacing English, disagreement over the use of MCE, and the limited school environments that are conducive to such an approach.

Lack of qualified teachers

The implementation of a bi-bi approach requires a faculty of qualified professionals. However, the availability of qualified teachers is limited due to lack of deaf teachers in the schools and to inadequate ASL skills of hearing teachers.

While many teachers may have positive attitudes toward ASL and the bilingual approach (Haselton, 1990), few have the ability to implement this approach into their programs. A basic assumption of bilingual education is that the teacher is proficient in both ASL and English. However, few native signers are teachers. In a 1993 article, Andrews and Jordan reported that only 16% of teachers of the deaf are deaf themselves. They attribute this lack of deaf teachers to little recruitment of deaf students into teacher education programs and inequitable Graduate Record Examination (GRE) requirements and teacher competency examinations. Furthermore, many of those teachers who are deaf teach in vocational departments and in content areas other than reading and language (Andrews, Winograd, & DeVille, 1994).

While hearing teachers cannot be expected to have native fluency in ASL, they rarely have any abilities in ASL. Andrews, Winograd, and DeVille (1994) noted that most teacher education programs require candidates for certification to take only two or fewer sign language classes. Therefore, hearing teachers are not prepared to teach in ASL.

Unknown standard definition of ASL

Bilingual education depends upon proficiency in ASL. While much progress has occurred over linguistic analysis of ASL, much debate continues over what exactly defines ASL. Seal (1991) studied deaf and hearing signers' ability to distinguish between ASL and English signing. Deaf and hearing observers were classified by years of experience signing. Observers viewed a videotape of conversations and were told that two of the four children in the conversations were from ASL homes and two from SSS homes. Observers were asked to decide which mode of signing each child in the videotape was using and to explain why they came to these decisions. Five sign language specialists watched the conversations and served as criterion judges to which observer judgements were compared. Seal found that years of experience did not significantly affect scores. Except for one case, the deaf signers showed no significant difference in ability to recognize ASL signing than the hearing observers. Therefore, the results showed that a standard definition of ASL is not widely known among signers.

Research against ASL as a natural language for deaf children

Eagney (1987) found that deaf children understand ASL, English signing, and simplified English equally well, and both younger and older children equally understand the three languages. She concluded that ASL is not a natural language for the deaf, because ASL was not better understood than the two forms of English. Eagney reasoned that if ASL were a natural language for the deaf, "younger children would automatically understand it better, and older children, having been trained in English, would not." However, the results of this research did

not find this to be true. Eagney also reasoned that the more linguistically-sophisticated older children would have an even better grasp of a natural language, ASL, than of English. However, this did not prove to be true either.

However, since deaf children do not receive formal teaching of ASL (which hearing children do of their native language, English) and since they do not receive consistent models of ASL to which they can compare their own signing and with which they can either consciously or subconsciously analyze and test their own assumptions about ASL, older children do not improve their understanding of ASL as readily as hearing children improve in their native language.

Less auditory exposure for children with auditory abilities

Some teachers believe that "using ASL all the time would be cheating some students out of an opportunity to be exposed to English, especially those students who can make use of their residual hearing" (La Bue, 1995). After all, the students with the most hearing often do better academically than other students (La Bue, 1995). The reason for this is obvious: if the only input from the teacher that is accessible to any of the children is in an aural mode, only the students with aural abilities will succeed. The purpose of the bilingual-bicultural approach is to make instruction accessible to all students regardless of auditory ability. Furthermore, all current bi-bi programs continue to provide intensive aural/oral training for their students. This area is not neglected in the bilingual approach; it is only separated from academic achievement.

ASL could replace English

La Bue (1995) studied a hearing teacher of the deaf and the fourteen year old deaf students in her class. In the study, La Bue took an interactive approach to testing the teacher's philosophies of education and communication and to comparing the teacher's understanding of language and cognition in deaf students with her actual practices. She found that teachers who use ASL summaries tend to give students credit for understanding the written story when, in fact, the children have relied on the teacher's signing of the story.

Disagreement over the use of MCE

Some proponents of a bi-bi approach believe MCE can and should be used as a mode of communicating in English (Mounty, 1986; Paul & Quigley, 1987). However, some theorists in the approach (Johnson, Liddell, & Erting, 1989) and several current bi-bi programs believe MCE should not be used at all. Literature from The Learning Center (TLC) for Deaf Children in Framingham, MA, states, "TLC staff take care to keep the two languages [ASL and English] separate so that they provide a pure and clear language model both in ASL and in English." Communication guidelines from Sign Talk Children's Centre (STCC) in Manitoba, Canada, instruct teachers to "not speak and sign at the same time. Simultaneously speaking and signing can appear to save time, but it is at the expense of one (and usually both) of the languages" (Evans).

Bilingual-bicultural approaches only possible in segregated environments

Because the bi-bi approach emphasizes interactive communication in the educational environment, mainstream programs cannot adequately implement such an approach. Therefore, bi-bi programs are restricted to residential and day schools for the deaf. Currently, only 29% of deaf and hard of hearing students attend these types of schools (Schildroth & Hotto, 1996).

ASL may be difficult for parents to learn

While ASL may be easier than MCE for deaf children to learn, it is easier for hearing parents and teachers to learn a new modality (sign) of the language they already know (English) than to learn an all new language (ASL) in a modality they have never used (sign). Some educators may feel that ease of communication for the parents and teachers is more important than ease of comprehension for the child (La Bue, 1995). In which case, MCE would be used in the home.

Conclusion

The bi-bi approach, though relatively new, has received much attention from professionals in the field of deaf education. More importantly, overwhelming support for a return to ASL in the classroom has risen from the Deaf Community. However, research in this area is limited. Therefore, a need for further research exists, especially in the areas of effective placement, methods, and evaluation. On-going assessment of current bi-bi programs needs to be widely available for others to examine and follow. Without such research, this promising approach could lose support and therefore fail at the sake of deaf children.

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ASL as a Foreign Language Fact Sheet

Sherman Wilcox, Ph.D
Department of Linguistics
University of New Mexico
Albuquerque, NM 87131

Interest in American Sign Language (ASL) as a foreign language has become, in the words of Gary Olsen, former Executive Director of the National Association of the Deaf, "an American ground swell." Many colleges and universities are beginning to recognize the study of ASL and Deaf culture as legitimate academic pursuits and are starting to accept ASL in fulfillment of their foreign language entrance and exit requirements. In several states, ASL is mandated by law as acceptable in fulfillment of high school foreign language graduation requirements.

More and more colleges and universities are accepting ASL in fulfillment of foreign language requirements. The University of California system (all campuses) will soon accept ASL in fulfillment of foreign language entrance and graduation requirements. Harvard and Yale are among some of the schools which are investigating similar action. Recently, we have witnessed tremendous activity by state legislatures to support the teaching and acceptance of ASL as a foreign language. Many states now recognize ASL as a foreign language for the purpose of meeting high school graduation requirements.

In 1988, the parliament of the European Community, noting that there are 500,000 profoundly deaf people in member states whose first language is their national signed language and not the dominant spoken language of their country, recognized as legitimate languages the indigenous signed languages of the twelve member states. Recognition and acceptance of signed languages is clearly an idea whose time has come on an international scale.

American Sign Language as a Foreign Language

SHERMAN WILCOX, UNIVERSITY OF NEW MEXICO & JOY KREEFT PEYTON, CENTER FOR APPLIED LINGUISTICS

In recent years, a number of states have passed legislation recognizing American Sign Language (ASL) as a foreign language and permitting high schools and universities to accept it in fulfillment of foreign language requirements for hearing as well as deaf students. As of July 1997, 28 states had passed such legislation, and several community colleges and universities (including Brown, Georgetown, the Massachusetts Institute of Technology, Purdue, and the University of Washington) accept ASL as a foreign language for academic or elective credit.

ASL is a visual/gestural language, distinct from English and other spoken languages, from sign languages used in other countries, and from English-based sign systems used in the United States (such as manually coded English systems). Although the precise number of ASL users is difficult to determine, ASL is the predominant language — in other words, the language used most frequently for face-to-face communication, learned either as a first or second language of an estimated 100,000 to 500,000 Americans (Padden, 1987), including Deaf native signers, hearing children of Deaf parents, and adult Deaf signers who have learned ASL from other Deaf individuals.

As schools have decided to grant foreign language credit for ASL, they have had to address a number of questions, some of which are discussed below. (See Wilcox, 1989b, and Wilcox, n.d., for more detailed discussion).

Is ASL a Language?

ASL is a fully developed language, one of hundreds of naturally occurring signed languages of the world, with a complex grammatical structure (see, e.g., Klima & Bellugi, 1979; Valli & Lucas, 1993).

If ASL Is Used in the United States, How Can It Be Considered a “Foreign” Language?

ASL is indigenous to the United States and parts of Canada. At most universities, however, a language's place of origin has little to do with its status as a foreign language. For example, American Indian languages such as Navajo are accepted in fulfillment of university foreign language requirements. Because many native speakers of the languages studied in our schools live in the United States and were even born here, many programs are beginning to refer to themselves as second language programs rather than foreign language programs.

Are ASL Users in This Country Part of a Different Culture?

American ASL users are members of American culture. In addition, they participate in a rich and vibrant Deaf culture that has its own history, arts (e.g., dance, theater, poetry), and customs (Padden & Humphries, 1988; Wilcox, 1989a).

Is There a Body of Literature in ASL?

There are writing systems for ASL, but none are widely used to record ASL literature. However, there is a large body of ASL literature available in movies, videotapes, and CDs from companies such as Dawn Sign Press and Sign Enhancers, Inc., and from Gallaudet University's bookstore in Washington, DC. Gannon (1981) is an excellent source of information about the heritage and folklore of Deaf people.

Is ASL Easier to Learn Than Other Foreign Languages?

Because ASL developed as a visual/gestural language, its grammar differs from that of English and other languages that developed as oral/aural languages; ASL has a much more complex verbal aspect and classifier system than English. Some students of ASL believe it is more difficult to learn than oral languages.

Designers of ASL programs need to consider issues related to curriculum and materials, teacher qualifications, and evaluation of students' proficiency. Students need to develop both expressive and receptive fluency in ASL, have opportunities to interact with Deaf individuals and attend events in the Deaf community, and have access to the rich body of ASL literature. ASL classes should be taught by teachers who have a formal background in second language pedagogy, experience in teaching ASL, and verifiable proficiency in ASL.

Ideally, the teacher or a co-teacher would be a native ASL user. Some schools require that teachers be certified by the American Sign Language Teachers Association. Students learning ASL need to be evaluated according to proficiency guidelines in the same way as students learning spoken languages. An ASL proficiency test, the Sign Communication Proficiency Interview (SCPI), has been developed by William Newell and Frank Caccamise (Caccamise & Newell, 1997; Newell and Caccamise, 1997), based on the widely used oral proficiency interview (OPI).

Although developed for use with adults, the principles and techniques of the SCPI may be adapted for use with students in K-12 programs. See the resources listed below for contact information concerning use and adaptation of these materials and training workshops.

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Resources

American Sign Language as a Foreign Language

<http://www.unm.edu/~wilcox/ASLFL/aslfl.html>
Sherman Wilcox's Web page on ASL

American Sign Language Teachers Association (ASTLA)

814 Thayer Avenue
Silver Spring, MD 20910-4500 301-587-1788

(voice) 301-587-1789 (TTY)
<http://www.rit.edu/~gspncm> or
<http://www.nad.org>

Dawn Sign Press

6130 Nancy Ridge Drive
San Diego, CA 92121-3223
619-549-5330 (voice and TTY); 800-549-5350

Gallaudet University Press

800 Florida Avenue, NE
Washington, DC 20002-3695
800-621-2736 (voice); 888-630-9347 (TTY)
800-621-8476 (fax)
<http://www.gallaudet.edu/~gupress>

National Association of the Deaf (NAD)

814 Thayer Avenue
Silver Spring, MD 20910-4500
301-587-1788 (voice); 301-587-1789 (TTY)
<http://www.nad.org>

Sign Communication Proficiency Interview (SCPI)

Rochester Institute of Technology
National Technical Institute for the Deaf
52 Lomb Memorial Drive
Rochester, NY 14623-5604
Contact: Frank Caccamise
716-475-6420 (voice and TTY); 716-475-6500 (fax)
fccncr@rit.edu (email)

Sign Enhancers, Inc.

1320 Edgewater NW
Suite B10, Room C-1
Salem, OR 97304
800-76-SIGN-1 (voice and TTY)

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Following standard practice among most researchers and educators, capitalized *Deaf* is used to refer to the culture of the Deaf people. Lowercase *deaf* refers to the audiological condition of deafness.

