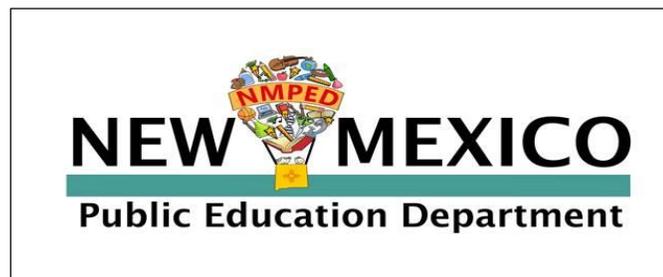


**New Mexico Public Education Department
Santa Fe, New Mexico**



**Gifted Education
in New Mexico**

**Technical
Assistance Manual
2019**



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The State of New Mexico
Gifted Education in New Mexico
Technical Assistance Manual
2019

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Notes

- This manual is available at <https://webnew.ped.state.nm.us/bureaus/special-education/technical-manuals/>
- This manual incorporates and replaces the 2011 version.

Table of Contents

Table of Contents

Notes	3
Introduction	7
Introduction	8
Historical Perspective	8
Chapter 1 Regulatory Requirements	13
Regulatory Requirements	14
Student Intervention System (<i>New Mexico's Rtl Framework</i>)	14
New Mexico Statutes for Gifted Education	15
State Rules for Gifted Education Services	15
State Licensure Rule—Endorsement for Teaching Students who are Gifted	19
Summary of State Rules for Caseloads Relevant to Gifted Education	19
Chapter 2 General Education Interventions	21
General Education Interventions	22
The State's Response to Intervention (Rtl) Framework	22
Characteristics in the Early Grades	23
Best Practices in the School Environment	24
Suggestions for the Home Environment	25
Chapter 3 Identifying Students as Gifted	26
Introduction	27
Students who are Gifted in Special Populations	27
Key Regulatory Requirements for the Identification of Students as Gifted in New Mexico	29
Guiding Principles for the Identification of Students as Gifted	30
Importance of Awareness and Sensitivity	30
Professional Development	32
Intervention and Evaluation Process Flowchart—Two Paths	33
About the Intervention Process	34
The Evaluation Process	34

Clinical Considerations in Testing for Giftedness	34
Testing Instruments	35
The Eligibility Determination Team	35
Differences in Identification and Gifted Programing: NM Public and Bureau of Indian Affairs Schools.....	36
References	36
Chapter 4 Social and Emotional Issues of Students who are Gifted	38
Introduction.....	39
Unique Social and Emotional Issues of Students who are Gifted	40
Benefits of Cluster Grouping.....	42
Possible Problems that May be Associated with Characteristic Strengths of Students Who are Gifted	42
Stress and the Gifted Learner.....	43
Burnout and Giftedness	44
Perfectionism.....	45
Gender Issues	46
Self-Concept.....	48
Characteristics of Special Populations of Students who are Gifted	48
Accommodations for Gifted Students with Attention Deficit Disorders (ADD).....	53
Strategies for Students who are Gifted	56
References	56
Chapter 5 Individualized Education Program (IEP) Development for Students Identified as Gifted	58
State Guidance for IEP Development.....	59
Special Considerations for IEPs for Students who are Gifted.....	60
Understanding Present Levels of Academic Achievement & Functional Performance	62
Understanding Measurable Goals	64
Examples of Present Levels and Measurable Annual Goals	65
References	68
Chapter 6 Program Design and Service Delivery	69
Introduction.....	70
Gifted Service Design—Description	70
Quality Services and Key Components	71
Cluster Grouping—Best Practice to Promote Student Achievement and Exemplary Classroom Practices.....	71

Twelve Other Programming Options	73
Challenges to Certain Delivery Models.....	76
Service Delivery: How Teachers Can Provide Differentiation for Students who are Gifted	76
How Administrators Can Facilitate Differentiation for Students who are Gifted	77
References	78
Chapter 7 Curriculum and Instruction.....	80
Introduction.....	81
Differentiation of Curriculum	82
Curricular and Curriculum Writing Models for Students who are Gifted.....	88
Strategies Specific to Students who are Gifted.....	95
Chapter 8 Administration and Management.....	108
Introduction.....	109
Suggested Administrators' Responsibilities to Gifted Education.....	110
Calculating Student/Staff Caseload Maximums for Teachers Serving More Than One Level of Service	110
Gifted Advisory Committees	111
Program Evaluation	112
Licensure Endorsement for Teaching Students who are Gifted.....	112
Supplemental Information and Resources	114
Internet Resources	115
Organizations and Resources	115
National Professional Associations.....	118
State and Local Professional Associations	119
Glossary	120
Assessment Instruments	123

Introduction



Let us think of education as the means of developing our greatest abilities, because in each of us there is a private hope and dream which, fulfilled, can be translated into benefit for everyone and greater strength for our nation.

—John F. Kennedy

Introduction

During the past decade, research has indicated that challenging teaching and learning is critical for all students. Although most people agree that students differ in ability, there is a growing concern that we are not maximizing potential in our advanced students. The research-based concepts presented in this manual will set the stage to allow students in New Mexico who are gifted to develop their potential.

This technical assistance manual is intended to be used by administrators, evaluation specialists, teachers, and others, including school board members, directors of special education, counselors, parents, and community members.

- It is a companion to New Mexico’s *Developing Quality IEPs* manual developed by the New Mexico Public Education Department’s (NMPED’s) Special Education Bureau.
<https://webnew.ped.state.nm.us/wp-content/uploads/2018/03/Developing-Quality-IEPs.pdf>
- The information in this manual has been also been aligned with the guidance manual for the state’s Response to Intervention (Rtl) framework, known as The Three-Tier Model of Student Intervention. See
<https://webnew.ped.state.nm.us/wp-content/uploads/2018/03/Rtl-Manual-most-updated-2.15.pdf>

Together, the two manuals offer information and assistance, which is used to ensure that students demonstrating giftedness receive appropriate services in our state.

In New Mexico, K–12 students who are determined to be gifted are considered “exceptional.” Therefore, they are served through applicable state rules for special education. The manual will explain how those rules are implemented for students who are gifted. The supplemental section at the end of the manual includes relevant online resources, information on professional associations, a glossary, and information about assessments and screening instruments.

Both educators and parents will find this manual helpful as they work together to create and maintain appropriate educational opportunities for gifted learners.

Historical Perspective

Since 1972, “gifted” has been included as one of the areas of exceptionality for special education in the state of New Mexico. As such, students receiving gifted services in the New Mexico are served under state rules for special education that outline the procedures and protections under the federal Individuals with Disabilities Education Act (IDEA) that apply to gifted education in New Mexico. State special education rules for gifted education do not apply to private schools, state supported schools, and home schools. See Chapter 1 for more information on regulatory requirements.

1972: “Gifted” as an exceptionality

Included in the Educational Standards for New Mexico Schools (ESNMS) as one of the exceptionality categories of special education

- Required a 130 IQ
- Identified and served 33 students statewide

1981: Gifted education teacher certification begun

- New Mexico State Department of Education (NMSDE) established a special education K–12 teaching certification for “gifted” which required 15 credit hours of university coursework specifically focused on the education of gifted learners.

1982: Broadened the definition of gifted

- Based identification on outstanding performance in two of the following four areas:
 - Intelligence
 - Achievement
 - Creativity
 - Critical Thinking
- Identified additional students from minority groups.
- Increased total numbers of students receiving gifted services.

1986: Public School Reform Act (SB 106)

- Included definition of gifted in the Public School Reform Bill that mandated an IQ component at least two standard deviations above the mean and outstanding achievement, creativity, or critical thinking
- Decreased the total number of students in gifted programs from 6,575 to 5,063 (25 percent decrease)
- Decreased the number of minority students in gifted programs from 1,369 to 815 (40 percent decrease)

1986 to 1990: Memorials passed each year through 1990 by the New Mexico Legislature requesting studies on issues related to gifted education

1987: Gifted education teacher certification requirements ended

- NMSDE eliminated certification in gifted.
- No longer were there any specific training or coursework requirements for gifted education teachers.
- The only requirement at that time to teach students who were gifted was the possession of a teaching license in special education, elementary education, or secondary education, whichever was appropriate for the level being served.

1991: Task Force on gifted education formed by NMSDE's Special Education Office

- Focused on the identification of areas for improvement in gifted education
- Worked to bring about change in the documented under-representation of culturally diverse students in gifted programs
- Worked to affect statutory change removing the definition of gifted from the law

1991: HB 36/HB 36a Introduced

- Amended the definition of a student who is identified as gifted
- Allowed the NMSDE to adopt standards pertaining to the determination of a student who is gifted
- Tabled in the House Education Committee

1993: HB 56 and SB 11A—Companion bills on “The Determination of Gifted Children”

- Returned authority to the NMSDE to develop regulations and standards pertaining to the determination of students who are gifted
- Eliminated the reliance on a test score as a sole determining factor for identification
- Included a delayed implementation date of July 1994 to enable the NMSDE and Local Educational Agencies (LEAs) to develop standards and procedures
- Passed the legislature but not signed by governor

1994: HB 36 passed by the 1994 New Mexico Legislature and signed into law by Governor

- Changed definition of a “gifted student” in statute, effective July 1, 1994
- Very superior performance on an IQ test paired with outstanding achievement, creativity, and/or critical thinking
- In cases where the team determining eligibility documented that a student’s IQ assessment was not accurate due to cultural or linguistic differences, socioeconomic status, or disabling conditions, other documentation was required.
- Returned authority to the NMSDE to determine criteria for giftedness

1994: State rules developed on gifted education

- At NMSDE’s request, the Task Force on Gifted Education drafted proposed state rules.
- Draft rules disseminated statewide for input from the field with comments (05/ 2– June 1, 1994)
- Public hearings held in four locations throughout the state—Bloomfield, Albuquerque, Roswell, and Gadsden
- Required that each school providing a gifted program create an advisory committee for gifted education
- House Bill 2 included a \$1,400,000 appropriation for the implementation of the revised standards for gifted education

1994, June 24: Special education definitions

Those pertaining to the gifted child were approved at a meeting of the New Mexico State Board of Education (SBE Regulation 90-2). These revised standards included the following:

- Definition of gifted removed the required IQ score of two standard deviations above the mean and paired very superior performance on an individual IQ test (as defined by the test's author) with outstanding achievement, creativity, or critical thinking.
- In cases where the multidisciplinary team believed a student's test scores was depressed due to cultural or linguistic differences, disadvantaged socioeconomic status, or handicapping conditions, additional documentation was required.
- Multidisciplinary team decision-making process required for each student
- Creation of an advisory committee required for each school.

1994: Corollary change in the Standards for Excellence for New Mexico Schools (SENMS)—Compliance Manual (CM), Chapter 5 (November)

1994, November: Trainings

Two statewide trainings held on implementation of new rule

1996: Gifted survey

Dissemination by State Task Force on Gifted Education of statewide gifted survey regarding identification and programming for students

1999: Revision of State technical assistance document on gifted education

2005: Revision of State statutes regarding gifted advisory committees (GAC)

- GAC required for each district
- There could be as many GAC in a district as there were high schools
- Each GAC to have representation from each school that it represented
- Responsibilities of the committees remained the same

2005: Addition of alternative protocol for students with “factors”

- Allowed use of an approved alternative protocol for all students
- Required use of an alternative protocol for students who are determined to have “factors”

2007: Alignment with aspects of Individuals with Disabilities Education Act (IDEA)

Revision of New Mexico Administrative Code (NMAC) regarding gifted to align with certain requirements of the federal IDEA (2004)

2008: First TAM for gifted

Completion of first version of *Technical Assistance Manual for Gifted Education in New Mexico* (Revisions 2011, 2019)

2010: State licensure rule for teachers

Gifted endorsement requirements and competencies incorporated into state licensure rule for teachers

2011: Update of *Technical Assistance Manual for Gifted Education in New Mexico*

2019: Update of *Technical Assistance Manual for Gifted Education in New Mexico*

Chapter 1

Regulatory Requirements



The Nation's greatest resource for solving critical national problems in areas of national concern is its gifted and talented children. Unless the special abilities of gifted and talented children are developed during their elementary and secondary school years, their special potential for assisting the Nation may be lost. Furthermore, gifted and talented children from economically disadvantaged families and areas are often not afforded the opportunity to fulfill their special and valuable potential, due to inadequate or inappropriate educational services.

—United States Congress 1972
(P.L. 95-561, Title IX, Part A,
Section 901)

Regulatory Requirements

As district and charter schools in New Mexico develop and implement programs for students who are gifted, they must first be aware of certain regulatory requirements. This section describes the laws and rules that are chiefly relevant to student intervention and gifted education in New Mexico. These statutes and rules have not been modified since the 2010 revision concerning licensure.

Student Intervention System (*New Mexico's Rtl Framework*)

Subsection E of 6.29.1.9 NMAC

Three-tier model of student intervention. As summarized below, this state rule sets forth that the public agency must follow a three-tier model of student intervention as a proactive system for early intervention for students who demonstrate a need for educational support for learning or behavior. This framework applies to all students K–12 whether they are below, meeting, or exceeding grade-level standards. See also page 27 for an explanation of how the framework is implemented for students who are bright or suspected of being gifted.

- In Tier 1, the public agency must ensure that adequate universal screening in the areas of general health and well-being, language proficiency status, and academic levels of proficiency has been completed for each student enrolled. If universal screening, a referral from a parent, a school staff member, or other information available to a public agency suggests that a particular student needs educational support for learning, then the student shall be referred to the Student Assistance Team (SAT) for consideration of interventions at the Tier 2 level.
- In Tier 2, a properly-constituted SAT at each school, which includes the student's parents (and student, as appropriate), must conduct the child study process and consider, implement and document the effectiveness of appropriate research-based interventions utilizing curriculum-based measures. In addition, the SAT must address culture and acculturation, socioeconomic status, possible lack of appropriate instruction in reading or math, and teaching and learning styles in order to rule out other possible causes of the student's educational difficulties. When it is determined that a student has an obvious disability or a serious and urgent problem, the SAT shall address the student's needs promptly on an individualized basis, which may include a referral for a multidisciplinary evaluation to determine possible eligibility for special education and related services consistent with the requirements of 34 CFR Sec. 300.300.
- In Tier 3, a student has been identified as a student with a disability and/or as gifted. An IEP is developed by a properly-constituted IEP team pursuant to 34 CFR Sec. 300.321. An IEP for gifted is developed using many, but not all, of the same provisions in 34 CFR Section 300.321. Although state rules for developing an

appropriate IEP for students identified as gifted contain many of the same required elements, some of the IDEA's substantive requirements are specifically exempted by state special education rule.

- The *Student Assistance Team and the Three-Tier Model of Student Intervention* shall be the guiding document for districts/schools to use in the implementation of student intervention.

New Mexico Statutes for Gifted Education

22-13-6.1 NMSA 1978—Gifted children; determination

- A. The department shall adopt standards pertaining to the determination of who is a gifted child and shall publish those standards as part of the educational standards for New Mexico schools.
- B. In adopting standards to determine who is a gifted child, the department shall provide for the evaluation of selected school-age children by multidisciplinary teams from each child's school district. That team shall be vested with the authority to designate a child as gifted. The team shall consider information regarding a child's cultural and linguistic background and socioeconomic background in the identification, referral and evaluation process. The team also shall consider any disabling condition in the identification, referral, and evaluation process.
- C. Each school district offering a gifted education program shall create one or more advisory committees of parents, community members, students, and school staff members. The school district may create as many advisory committees as there are high schools in the district or may create a single district-wide advisory committee. The membership of each advisory committee shall reflect the cultural diversity of the enrollment of the school district or the schools the committee advises. The advisory committee shall regularly review the goals and priorities of the gifted program, including the operational plans for student identification, evaluation, placement and service delivery and shall demonstrate support for the gifted program.
- D. In determining whether a child is gifted, the multidisciplinary team shall consider diagnostic or other evidence of the child's:
 - (1) Creativity or divergent-thinking ability;
 - (2) Critical-thinking or problem-solving ability;
 - (3) Intelligence; and,
 - (4) Achievement.

State Rules for Gifted Education Services

State special education rules at 6.31.2 NMAC contain specific requirements for identifying and serving school-age (K–12) students who are gifted. See the excerpt for gifted education below and the full rule at the following link:

<http://www.nmcpr.state.nm.us/NMAC/parts/title06/06.031.0002.htm>.

A. Gifted child defined

As used in 6.31.2.12 NMAC, “gifted child” means a school-age person as defined in Subsection D of Sec. 22-13-6 NMSA 1978 whose intellectual ability paired with subject matter aptitude/achievement, creativity/divergent thinking, or problem-solving/critical thinking meets the eligibility criteria in 6.31.2.12 NMAC and for whom a properly-constituted IEP team determines that special education services are required to meet the child’s educational needs.

B. Qualifying areas defined

- (1) “Intellectual ability” means a score two standard deviations above the mean as defined by the test author on a properly administered intelligence measure. The test administrator must also consider the standard error of measure (SEM) in the determination of whether or not criteria have been met in this area.
- (2) “Subject matter aptitude/achievement” means superior academic performance on a total subject area score on a standardized measure, or as documented by information from other sources as specified in Paragraph (2) of Subsection C of 6.31.2.12 NMAC.
- (3) “Creativity/divergent thinking” means outstanding performance on a test of creativity/ divergent thinking, or in creativity/divergent thinking as documented by information from other sources as specified in Paragraph (2) of Subsection C of 6.31.2.12 NMAC.
- (4) “Problem-solving/critical thinking” means outstanding performance on a test of problem-solving/critical thinking, or in problem-solving/critical thinking as documented by information from other sources as specified in Paragraph (2) of Subsection B of 6.31.2.12 NMAC.
- (5) For students with “factors” as specified in Paragraph (2) of Subsection E of 6.31.2.12 NMAC, the impact of these factors shall be documented and alternative methods will be used to determine the student’s eligibility.

C. Evaluation procedures for gifted children

- (1) Each district must establish a child find procedure that includes a screening and referral process for students in public school who may be gifted.
- (2) Analysis of data. The identification of a student as gifted shall include documentation and analysis of data from multiple sources for subject matter aptitude/achievement, creativity/divergent thinking, and problem solving/critical thinking including
 - a) standardized measures, as specified in Subsection B of 6.31.2.12 NMAC, and
 - b) information regarding the child’s abilities from other sources, such as collections of work, audio/visual tapes, judgment of work by qualified individuals knowledgeable about the child’s performance (e.g., artists, musicians, poets and historians, etc.), interviews, or observations.
- (3) The child’s ability shall be assessed in all four areas specified in Subsection B of 6.31.2.12 NMAC.

D. Standard method for identification

Under the standard method for identification, students will be evaluated in the areas of intellectual ability, subject matter aptitude/achievement, creativity/divergent thinking, and problem solving/critical thinking. A student who meets the criteria established in Subsection B of 6.31.2.12 NMAC for intellectual ability and also meets the criteria in one or more of the other areas will qualify for consideration of service. A properly-constituted IEP team, including someone who has knowledge of gifted education, will determine if special education services are required to meet the child's educational needs.

E. Alternative method for identification

- (1) A district may apply to the Public Education Department to utilize an alternative protocol for all students. Eligibility of a student will then be determined by a properly administered and collected, department-approved alternative protocol designed to evaluate a student's intellectual ability, subject matter aptitude/achievement, creativity/divergent thinking, and problem solving /critical thinking.
- (2) If an accurate assessment of a child's ability may be affected by factors including cultural background, linguistic background, socioeconomic status or disability condition(s), an alternative protocol as described in Paragraph (1) of Subsection E of 6.31.2.12 NMAC will be used in all districts to determine the student's eligibility. The impact of these factors shall be documented by the person(s) administering the alternative protocol.
- (3) The student assistance team (SAT) process requirements will not apply to students who meet the criteria established by the alternative protocols. When a student's overall demonstrated abilities are very superior (as defined by the alternative protocol author), a properly-constituted IEP team, including someone who has knowledge of gifted education, will determine if special education services are required to meet the child's educational needs.

F. Applicability of rules to gifted children

- (1) All definitions, policies, procedures, assurances, procedural safeguards and services identified in 6.31.2 NMAC for school-aged children with disabilities apply to school-aged gifted children within the educational jurisdiction of each local school district, including children in charter schools within the district, except:
 - a) the requirements of 6.31.2.8 NMAC through 6.31.2.10 NMAC;
 - b) Subsections J, K, and L of 6.31.2.11 NMAC regarding child find, evaluations and services for private school children with disabilities, children with disabilities in state-supported educational programs, children with disabilities in detention and correctional facilities and children with disabilities who are schooled at home;
 - c) the requirements of 34 CFR Secs. 300.530-300.536, Subsection I of 6.31.2.13 NMAC and 6.11.2.11 NMAC regarding disciplinary changes of placement for children with disabilities; and

- d) the requirements of 34 CFR Secs. 300.43, 300.320(b) and 6.31.2.11(G)(2) regarding transition planning. Students identified as gifted must meet the requirements at Subsection B of 22-13-1.1 NMSA 1978, which is the next step plan for students without disabilities.
- (2) Assuming appropriate evaluations, a child may properly be determined to be both gifted and a child with a disability and be entitled to a free appropriate public education for both reasons. The rules in this section 6.31.2.12 NMAC apply only to gifted children.
- (3) Nothing in these rules shall preclude a school district or a charter school within a district from offering additional gifted programs for children who fail to meet the eligibility criteria. However, the state shall only provide funds under Section 22-8-21 NMSA 1978 for department-approved gifted programs for those students who meet the established criteria.

See page 20 for an explanation of the exceptions above.

G. Advisory committees

- (1) Each school district offering a gifted education program shall create one or more advisory committees of parents, community members, students and school staff members. The school district may create as many advisory committees as there are high schools in the district or may create a district-wide advisory committee.
- (2) The membership of each advisory committee shall reflect the cultural diversity of the enrollment of the school district or the schools the committee advises. Representation from all schools the committee is advising is required.
- (3) Purposes. The advisory committee shall:
 - a) regularly review the goals and priorities of the gifted program, including the operational plans for student identification, evaluation, placement and service delivery;
 - b) demonstrate support for the gifted program;
 - c) provide information regarding the impact that cultural background, linguistic background, socioeconomic status and disability conditions within the community may have on the child referral, identification, evaluation and service delivery processes;
 - d) advocate for children who have been under-represented in gifted services due to cultural or linguistic background, socioeconomic status, or disability conditions, in order to ensure that these children have equal opportunities to benefit from services for gifted students; and,
 - e) meet three or more times per year at regular intervals.
- (4) Formal documentation of committee membership, activities and recommendations shall be maintained. If proposals are made by the committee to address any of the purposes as listed in Subsection G (3) of 6.31.2.12 NMAC, they shall be submitted in writing to the district administration. The administration shall respond in writing to any proposed actions before the next scheduled meeting of the advisory committee.

[6.31.2.12 NMAC - Rp, 6.31.2.12 NMAC, 6/29/07; A, 12/31/09]

State Licensure Rule—Endorsement for Teaching Students who are Gifted

State rule at 6.64.18 NMAC (effective 1/29/2010)

See page 113 for requirements and link to educator competencies.

Summary of State Rules for Caseloads Relevant to Gifted Education

Excerpted from *Subsection I of 6.29.1.9 NMAC—Procedural Requirements*

- (1) The student/staff caseload shall not exceed 35:1 for a special education teacher and 60:1 for a speech-language pathologist for special education services or speech-only services, in which properly licensed special education teachers or speech-language pathologists travel from class to class or school to school, providing services to students with disabilities whose individualized education programs (IEPs) require a minimal amount of special education. (A minimal amount of special education services shall not exceed 10 per cent of the school day/week.)
- (2) The student/staff caseload shall not exceed 24:1 for a special education teacher and 35:1 for a speech-language pathologist for special education services or speech-only services which properly-licensed special education teachers or speech-language pathologists provide to students with disabilities whose IEPs require a moderate amount of special education. (A moderate amount of special education services shall be less than 50 per cent of the school day.)
- (3) The student/staff caseload shall not exceed 15:1 for special education services in which properly licensed special education teachers provide services to students with disabilities whose IEPs require an extensive amount of special education for a portion of the school day as appropriate to implement the plan. (An extensive amount of special education services shall be provided 50 per cent or more of the school day.)
- (4) The student/staff caseload shall not exceed 8:1 for special education services in which a properly licensed professional provides services to students with disabilities whose IEPs require a maximum amount of special education. (A maximum amount of special education services
- (5) Adequate student/staff caseloads shall be provided to appropriately address needs identified in the IEPs. Paraprofessionals and assistants who are appropriately trained and supervised in accordance with applicable department licensure rules or written department policy may be used to assist in the provision of special education and related services to students with disabilities under Part B of IDEA.
- (6) If the student/staff caseload ratio exceeds the standards provided above, a request for waiver shall be submitted to the department for review and approval by the secretary.

See the full special education state rules at

<http://www.nmcpr.state.nm.us/NMAC/parts/title06/06.031.0002.htm>

What do the Exceptions in Subsection F (1) on Page 17 Mean?

The state special education rules apply to gifted **except** in a number of ways as noted on page 17. The list below summarizes the key points of those exceptions.

- Since giftedness (only and not in the presence of another disability under the IDEA) is not a disability category recognized under the IDEA, the federal term *FAPE* does not apply to students who are gifted in New Mexico. That is because although state rules for developing an “appropriate” IEP for students who are gifted contain many of the same required elements, some of the IDEA’s substantive requirements are specifically exempted by state special education rule. In other words, students who are gifted only are not entitled to a FAPE as defined by the IDEA. Instead, state special education rules for gifted education determine what procedures and programmatic standards apply as an “appropriate” free public school education for students who are gifted.
- The public agency responsibilities set forth in 6.31.2.9 NMAC do not apply to gifted education programs.
- “Child Find” as required by the IDEA does not apply. Instead, child find for bright and/or potentially gifted students is a locally-determined procedure conducted through the state’s Response to Intervention (RtI) framework procedures that all schools must implement. (See page 22.)
- Identification and evaluation procedures for gifted education are different than they are for students with disabilities. Instead, state rules for gifted education set forth specific identification, evaluation, and eligibility methods.
- The 60-day initial evaluation timeline and the three-year reevaluation requirement does not apply to students who are gifted only. Instead, districts and charter schools must develop their own written, local policy for a gifted initial evaluation/reevaluation timeline system.
- Rules for educational services as provided in 6.31.2.11 NMAC do not apply to students who are gifted only and in state-supported schools, private schools, correction and detention centers, or schooled at home.
- While behavior planning and management is a required IEP component, as necessary, for a student who is gifted, the IDEA requirements for suspensions, expulsions, and disciplinary changes of placement do not apply. Instead, requirements apply under the state’s Student Rights and Responsibilities Act at 6.11.2 NMAC for students without disabilities.
- Transition planning as required by the IDEA does not apply to students who are gifted. Instead, this need for students who are gifted is addressed through the Next-Step Plan procedures found in state statute at Subsection B of 22-13-1.1 NMSA 1978.

Chapter 2

General Education Interventions



Gifted programs are not about elitism. We are talking about the essence of quality public education: enabling all children to reach their full potential. We seek for gifted children exactly what we seek for other groups of exceptional and special-needs children: an appropriate learning environment.

—Bob Chase, NEA President,
NAGC Keynote Speech

The State's Response to Intervention (Rtl) Framework

The Three-Tier Model of Student Intervention

Advanced learners and students who are gifted can be found in all student populations K–12 regardless of race, socioeconomic status, or English language proficiency. Schools in New Mexico serve bright and students who are gifted through implementing the state's Response to Intervention (Rtl) framework, known as the Three-Tier Model of Student Intervention. To understand the basic model, see the Rtl framework link on the state's website at <https://webnew.ped.state.nm.us/bureaus/safe-healthy-schools/response-to-intervention-rti/> for the *Rtl Framework Quick Guide*.

The state's Three-Tier Model of Student Intervention is well suited to providing appropriate interventions for students who are learning beyond the general curriculum (e.g., advanced learners who need additional challenge or higher-level thinking skills). In some instances, a student's true abilities are not recognized so they may not receive appropriate educational services, and then show underachievement or social skill challenges. Research shows that students who are gifted who are not recognized, formally identified, or placed in a gifted education program may begin to develop at-risk behaviors in the third grade or even earlier.

The Tiered Model of Student Intervention

Tier 1

The intervention process for students who are bright or potentially gifted begins in Tier 1 in the general education program through strategies such as differentiated instruction, tiered assignments, and/or curriculum compacting.

Tier 2

The data from progress monitoring these interventions determine whether the student needs to be referred to Tier 2—the Student Assistance Team (SAT) process. The SAT might determine that a SAT Intervention Plan is necessary. It could provide for appropriately challenging curricular content for a bright student, cross-age grouping, independent study, and/or curriculum compacting, as well as accommodations for the student's exceptional learning strength or factor.

Tier 3

For other students, the SAT may determine that the student needs to be evaluated for Tier 3—gifted education services. In the case of a student exceeding grade-level expectations, universal screening and/or progress monitoring, and other data may show a faster rate of progress, exceptional strength in one or more particular areas, and/or overall high achievement. However, some students who are potentially gifted may also exhibit strange

interests or vocabularies that are out of touch with peers, appear socially isolated, or even show underachievement or problematic behavior. Therefore, the SAT needs to keep alert to these co-existing factors if a student is being considered for an evaluation for gifted education services

Students who are evaluated for Tier 3—that is, gifted education services as special education—but do not qualify, are referred back to the SAT for further consideration of an appropriate SAT Intervention Plan using information obtained from the evaluation.

Bypass of the SAT process

In districts and charter schools that have applied to the New Mexico Public Education Department (NM PED) and are using state-approved alternative gifted assessments for students with certain “factors,” state rule allows for a bypass of the SAT process (Tier 2). See page 33.

The referral, evaluation, and identification process for gifted education are fully detailed in Chapter 3 of this manual.

Characteristics in the Early Grades

Bright preschool and early-primary students differ from their peers in many ways. Just as students develop physically in their own individual ways, the needs and characteristics of bright students must be examined individually. Some typical characteristics are listed below. Many, but not necessarily all, may apply to an individual student.

Thinking Skills

Preschool and early-primary students with advanced thinking skills often exhibit many of the following traits:

- Curiosity—frequently dissects things wondering how they work. Many constantly ask *Why?* or *Why not?*
- Advanced memory—often remember happenings from a long time ago
- Learning new concepts—grasp ideas quickly and are able to apply them to new situations
- Attention spans—able to maintain attention to tasks over long periods of time, particularly in areas that interest them
- Strong vocabularies—use words that are exceptionally advanced for age peers. Many begin speaking and understanding language at an early age
- Fluency—are able to generate large quantities of ideas and problem solutions
- Reasoning skills—connect events and ideas as well as understand cause and effect relationships perceived as sophisticated for their age
- Advanced sense of humor—enjoy jokes, plays-on-words and riddles. Often make up their own.

Affective Characteristics

Preschool and early-primary students exhibiting highly-developed tendencies in the affective realm may demonstrate many of the following characteristics:

- Sensitivity—may be sensitive to the emotions of others. Many find the news broadcasts to be upsetting
- Idealism—have intense sense of right and wrong and may be distressed if they feel something is wrong
- Emotional feelings—exhibit intense emotional feelings, and may become extremely sad, fearful, or happy
- Peer selection—demonstrate a preference to play with older children or exhibit a strong desire to be with adults
- Frustration—may become easily frustrated, especially when their physical development does not match their intellectual abilities, limiting production of complex projects they can visualize, but are physically unable to produce

Best Practices in the School Environment

The best school settings for bright preschool and early-primary students are situations that examine unique needs and individualize instruction, allowing them to develop at their own rate. Choices designed around student interest should be allowed. Exploration of new topics is imperative. These students should be permitted to spend time learning with others who are equally bright. Most bright students come to school with great anticipation of learning experiences to come. Many are quickly frustrated because they have mastered kindergarten curriculum years before enrolling in school. These students are often placed in a class where they either hide their abilities in order to fit in, or become disenchanted with school in general, leading to learning problems at a later time, so staff need to be aware of this possibility.

Parents should make the school aware of their child's advanced intellectual or academic abilities early in the school year. When parents work together with educators in identification of a student's abilities, the school is better equipped to design appropriate educational programs to develop those abilities and talents.

Young students, although possessing advanced abilities in various curricular areas, are frequently unable to perform academic tasks designed for older students. Many such tasks require students to participate in teacher-directed activities while sitting still and concentrating on written work. It must be remembered that young students, no matter how bright, require direct instruction in order to complete written work above grade level. It is imperative that all young students are actively involved with learning material. Educators must insure that appropriately advanced curricular content is available to young students, as necessary, while taking into account physical development and social skills. This can be accomplished by breaking units into shorter lessons. Activities can be presented

through inquiry-oriented experimentation or in a game format. The use of manipulatives for math, language, and reading experiences are appropriate approaches.

Suggestions for the Home Environment

Parents are the first educators for their bright, young children. They should support and provide opportunities to develop their children's interests and strength areas, while allowing the children to determine how they spend much of their free time. Parents of bright children sometimes make the mistake of pressuring them to become over-committed in activities and/or constantly praising the children's talents. This may lead children to believe they are valued only for their talents or abilities. All children need a reasonable amount of praise, but it is important that children feel valued for who they are rather than for what they can do. Parents should treat bright children as normally as possible, while encouraging their learning and creativity.

Chapter 3

Identifying Students as Gifted



The natural trajectory of giftedness in childhood is not a six-figure salary, perfect happiness, and a guaranteed place in *Who's Who*. It is the deepening of the personality, the strengthening of one's value system, the creation of greater and greater challenges for oneself, and the development of broader avenues for expressing compassion.

—Dr. Linda K. Silverman
Counseling the Gifted and Talented

Identifying Students as Gifted

Introduction

Because gifted education in New Mexico is included under state rules for special education which follow the requirements of the federal Individuals with Disabilities Education Act (IDEA), giftedness is considered an exceptionality. School districts and charter schools have the same responsibility to provide services to students K–12 identified as gifted as they do students with disabilities.

The process of identifying students as gifted begins with an initial evaluation—either by an evaluation specialist **or** by a person trained to administer a state-approved alternative protocol. After that, a qualified group of individuals makes the eligibility determination. If the student is determined to be gifted under state criteria, then a team develops a written Individualized Education Program (IEP) for the student that includes appropriate services to meet the student’s documented needs. **(See page 33.)**

Students who are Gifted in Special Populations

Research by Coleman, Betts, and others show that students who are gifted who are not recognized, formally identified, nor placed in a gifted education program may begin to develop at-risk behaviors in the third grade or even earlier. Therefore, it is imperative that those responsible for the identification of students who are gifted in a school district or charter school be especially aware of young students who may be underrepresented.

New Mexico is culturally and linguistically diverse, and students who are gifted can be found in all populations. Giftedness in students from diverse backgrounds may be manifested in ways different from the dominant culture. Those from low socioeconomic environments may demonstrate giftedness in ways not typically associated with academics. Students who have a disability, in addition to giftedness, may also manifest different characteristics. New Mexico state rules refer to these students as ones with “factors.” Because of this, the school’s SAT must be aware of the criteria for identifying giftedness in all populations. In some instances, a student’s true abilities are not recognized, and he or she may not receive appropriate educational services.

The NM PED’s criteria for identifying students who are gifted strives to address the potential for under representation in gifted programs for four populations—students with cultural differences, linguistic differences, lower socioeconomic status, and disabling conditions. However, other special populations also need consideration.

Listed below are groups of students who are gifted and who have unique educational needs.

Young students who are gifted

Young students ages three through eight have been recognized as one of several subpopulations of students who are gifted and who are underserved. Early identification and appropriate education are particularly critical as a means of nurturing potential. Research supports special instruction for young students that is designed to address their capacity for learning and social/emotional vulnerability. A collaborative approach between families and school personnel should address identification, curriculum planning, and evaluation.

Underachievers who are gifted

Students who are gifted may not perform at their potential academic levels. Although scoring high on standardized measures, they may fail to achieve in much of their coursework. The causes and manifestations of underachievement are varied. These students should not be precluded from identification and/or participation in gifted programming as a result of their underachievement in the regular education classroom. Jerald Grobman (2006) emphasizes the importance of supportive and appropriately involved parents, generally admiring peers, and a reasonable education environment to combat gifted underachievement.

Girls who are gifted

As girls who are gifted progress through their school years, they tend to become less confident and less willing to believe in their abilities. Joan Franklin Smutny (1999) indicates that girls start out equal or superior to boys on tests of ability and achievement in the elementary grades, but gradually begin to fall behind, especially in science and math at the college and post-college levels. Special programs may need to be developed to support this population.

Highly gifted

Students identified as highly gifted have needs that may require programs and services beyond the general gifted programs. These students need to be comfortable with themselves and their unique abilities. The discrepancy between their cognitive ability and chronological age may contribute to significant social/emotional difficulties. Additionally, the differences between these students and their age peers frequently cause social isolation. Schools must design services that address both academic and social-emotional needs of this population.

National Association for Gifted Children (NAGC) Standard For Student Assessment

Description

Assessments provide information about identification, learning progress and outcomes, and evaluation of programming for students with gifts and talents in all domains.

Guiding Questions

- In planning for initial student identification, do selected assessment instruments provide qualitative and quantitative information from a variety of non-biased, equitable, and technically adequate sources that ensure an accurate representation of the local student population?
- Are there ongoing, comprehensive identification procedures in place and have families been kept fully informed?
- Once students have been identified for services, what ongoing assessment strategies are in place to evaluate individual student performance for overall progress, relative strengths and weaknesses, and to plan appropriate interventions?
- Is there a system in place to communicate assessment results to parents and guardians?
- Has time been set aside for persons with expertise to develop, conduct, and disseminate the results of an annual program evaluation plan that focuses on the impact of program components on student learning?
-

Source: National Association for Gifted Children (NAGC), 2010. <http://www.nagc.org/>

Key Regulatory Requirements for the Identification of Students as Gifted in New Mexico

(See pages 17–18 for full rule)

Child find

Each district and charter school must establish a K–12 child find procedure that includes a screening and referral process for students in public school who may be gifted. Subsection C (1) of 6.31.2.12 NMAC

Assessments

No single assessment can be used and students must be assessed in certain areas. Subsections C (2)–(3) and D of 6.31.2.12 NMAC

Alternative protocols

Districts and charter schools must use alternative protocols if an accurate assessment is affected by a student's cultural, linguistic, and socio-economic background. Subsection E (2) of 6.31.2.12 NMAC

Guiding Principles for the Identification of Students as Gifted

Early identification

Students who are gifted should be identified as early as possible in their educational careers.

Research- or Evidence-based

All instruments and procedures used to determine student eligibility for gifted education services must be based on current theory and research.

Broad assessment. All instruments and procedures used to determine student eligibility for gifted education services must measure diverse abilities, strengths, and needs in order to provide students an opportunity to demonstrate giftedness.

Staff development. Each district and charter school should consider providing staff development for teachers and administrators on the characteristics and needs of students who are gifted.

Parent development. Each district and charter school should consider providing workshops or seminars for parents on the characteristics and needs of students who are gifted.

Importance of Awareness and Sensitivity

Effective identification of students as gifted requires awareness and sensitivity. All teachers, administrators, diagnosticians, parents, and community members should be educated regarding giftedness. Educators, parents, and others must be sensitive to and aware of the signs and characteristics of giftedness in all cultural, ethnic, and socio-economic groups.

Administrator, Student, Community, and Stakeholder Awareness

Administrators, school boards, teachers, parents, counselors, and others should be aware of the following:

- The nature of giftedness
- Procedures for identifying giftedness
- The needs of students who are gifted
- Forms of instructional delivery

- Curriculum models for the gifted
- The need for differentiated instruction, which includes higher order thinking skills, critical thinking skills, inductive and deductive reasoning
- The needs of culturally, linguistically, economically disadvantaged students who are gifted, as well as those with disabilities
- Social and emotional needs of students who are gifted

Gifted Advisory Committees' Responsibilities

Another awareness function occurs through the district's Gifted Advisory Committee. State rules for gifted education requires each school district that provides gifted services form a Gifted Advisory Committee—GAC. Their responsibilities include:

Monitor

GACs regularly review of the goals and priorities of the gifted program, including the operational plans for student identification, evaluation, placement, and service delivery.

Provide support

GACs provide ongoing support for the gifted program through:

- The provision of information regarding the impact that cultural background, linguistic background, socioeconomic status, and disability conditions within the community may have on student referral, identification, evaluation, and service delivery processes
- Advocacy for students who have been under-represented in gifted services due to cultural or linguistic background, socioeconomic status, or disability conditions, in order to ensure that these students have equal opportunities to benefit from services for students identified as gifted.

Additional outreach

- Educate parents about students who are gifted and their needs
- Provide ongoing workshops and in-services for teachers regarding the nature and needs of gifted students
- Acting as a background resource for staff serving on Individualized Education Program (IEP) teams for students who are gifted

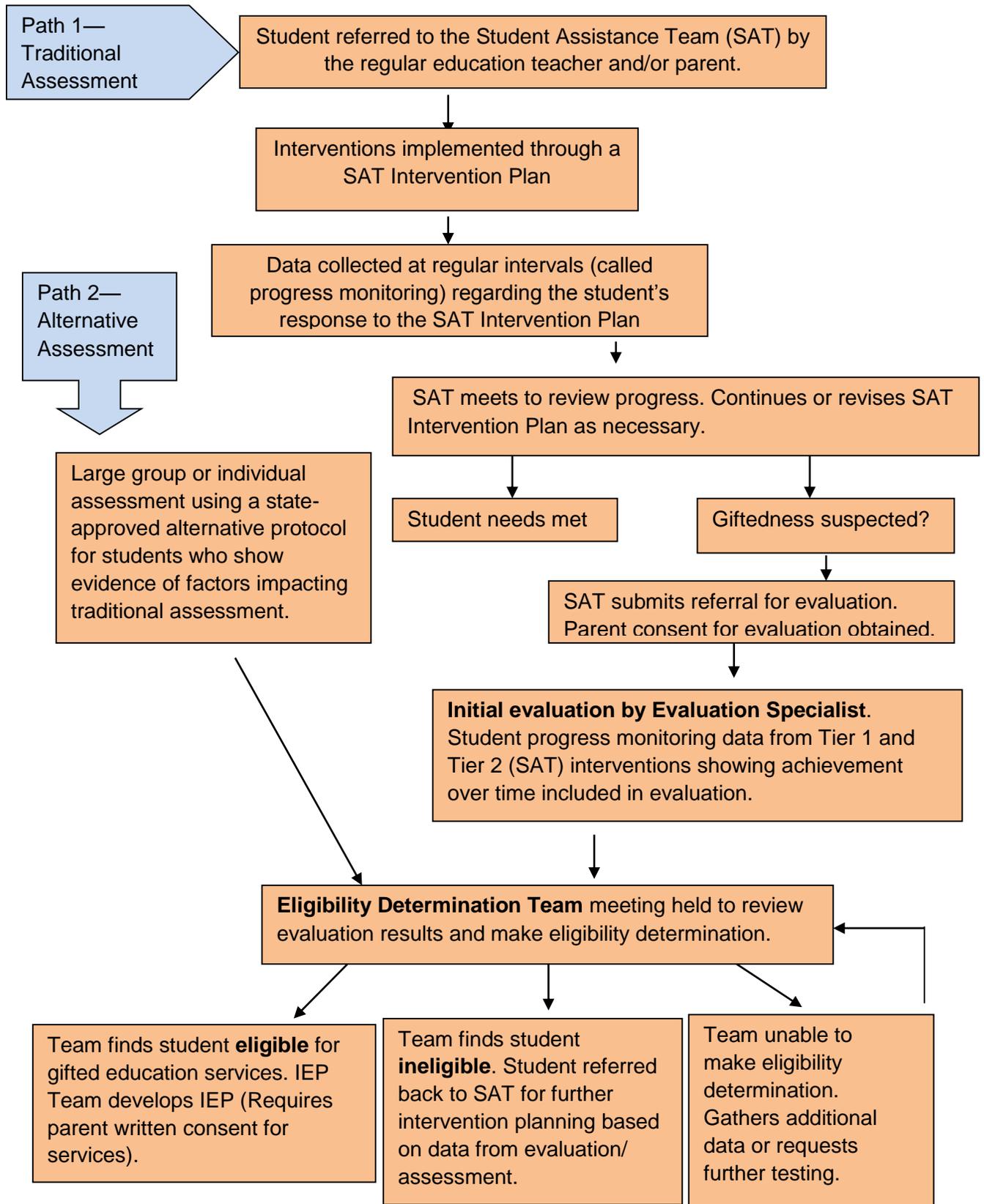
Sponsor a Gifted Awareness Day During the School Year

- Activities might highlight the needs and the contributions of students who are gifted, focus on different aspects and forms of giftedness, and emphasize that students, both gifted and high average, receive information regarding their aptitudes, skills, and abilities;
- Giftedness is an exceptionality to be nurtured, encouraged, fostered, and assisted through a variety of means;
- School resources are made visible and available;
- Resources for parents and students who are gifted are updated; and
- Attendance at state and local conferences focusing on gifted students are encouraged.

Professional Development

Continuous professional development is vital for all educators and related service staff. Regular education teachers, special education teachers, gifted education teachers, school psychologists, SAT members, and educational diagnosticians are key players in the referral, identification, and educational process. In-service opportunities for all teachers, as well as under-graduate and graduate-level coursework for gifted education teachers, can provide the skills necessary to identify students who are gifted. Diagnosticians and school psychologists need to enhance their skills in the testing and evaluation of students who are gifted. In particular, much work needs to be done regarding the assessment of ethnically and culturally-different students, as well as students from low socio-economic situations. Alternative protocols are available to districts for students with “factors.”

Intervention and Evaluation Process Flowchart—Two Paths



About the Intervention Process

All schools should utilize local resources to provide in-service training on state's RtI framework. Staff need to have an in-depth understanding of the process in each tier.

For state guidance about the Tier 1 and 2 process, please see The Student Assistance Team and the Three-Tier Model of Student Intervention: A Guidance and Resource Manual for New Mexico's Response to Intervention (RtI) Framework at the following link: <https://webnew.ped.state.nm.us/wp-content/uploads/2018/01/Student-Assistance-Team-Three-Tier-Model-of-Student-Intervention.pdf>

The Evaluation Process

Timeframe

Districts and charter schools must develop in their local policy a suitable evaluation timeline for gifted evaluations. Assessment must be completed in a timeframe according to local policy after obtaining written parent consent.

Qualifications

The evaluation must be conducted by appropriately qualified/licensed individuals, diagnosticians, or school psychologists.

Alternative Assessment

Districts and charter schools must adopt an alternative assessment to be used by trained examiners with students who are identified as having factors (e.g., cultural, linguistic, socioeconomic status, and disability conditions).

These assessments must be conducted by teams of properly trained individuals who have been certified in their use.

Clinical Considerations in Testing for Giftedness

Prior to Testing

The examiner develops an evaluation plan that may include, but is not limited to, the following:

- Reviewing previous records and documentation—especially looking at documentation supporting the results of instruction/interventions in Tier 1 (general education) and Tier 2 (individual SAT Intervention Plan)
- Reviewing standardized group achievement scores and grades
- Reviewing test manuals
- Early testing Interviews
- If possible, meet with student and/or the student's teacher(s) to ascertain if there are any visual, hearing, physical, motor, or medical concerns (e.g., asthma, hay fever, allergy)

- Learn about the culture of the student and its potential impact on assessment (e.g., Timeframes and perception of time vary in different cultures)
- Determine the best intelligence measure for the age, sex, racial, ethnic and socio-economic status, or background of the student
- Testing sessions
- Carefully note behaviors throughout the testing days—behavioral observations regarding their state of alertness, verbal and physical responses to test items
- Review all subtests, looking for patterns that create a picture of the student and to ascertain any possible alternative reasons for low scores. For example, was the student yawning or inattentive during directions? Was fatigue noted? Did the examiner make the necessary change of arrangement for the handedness of the student? Was the student wearing glasses, or using a hearing aid? Was the student comfortable, agitated, upset, ill, or nervous during testing?

In many instances, students may be doing very well in achievement areas as measured by standardized testing instruments, but may not perform well on a given intelligence test. In such instances, it may be wise, prudent, judicious, and reasonable for the diagnostician or school psychologist to administer a different intelligence test. For example, a non-verbal intelligence test (language-free) may be more appropriate to accurately determine intelligence than a verbal intelligence test. In other instances, it may be left to the clinical judgment of the diagnostician or school psychologist to suggest, for example, retesting one year later, with a different intelligence test. Traditional assessment for identification for giftedness in New Mexico requires testing in four areas: intelligence, achievement, critical thinking, and creativity.

Note: Standard error of measure applies to all testing instruments used.

Testing Instruments

A variety of testing instruments may be used to evaluate students who are potentially gifted and determine if they meet the criteria for gifted education services in New Mexico. The categories of testing instruments used for traditional assessment include: (a) intelligence testing instruments, (b) achievement testing instruments, (c) group screening instruments for achievement, (d) critical-thinking test instruments, (e) creativity testing instruments, and (f) referral checklists. A list of testing instruments is provided for each of these categories on pages 124 to 131 of this manual.

The Eligibility Determination Team

The diagnostician or alternative assessment examiner(s) will notify the Eligibility Determination Team when the evaluation is complete. This team is comprised of a group of qualified professionals (including individuals knowledgeable about gifted education and the student), the parent, and the student, if appropriate. This team reviews the evaluation results and determines whether the student is eligible by virtue of meeting criteria for giftedness and demonstrating a need for specially designed instruction. If so, an IEP team

will develop an IEP for the student. In many cases, the Eligibility Determination Team and the IEP team are the same individuals, so the process happens smoothly at one meeting. In other cases, the teams may be comprised of different individuals. Or, the eligibility determination and IEP development processes may happen at different meetings. In any event, this step needs to happen in a timely manner according to local policy. Please see the flowchart on page 33 for other eligibility determination possibilities.

Differences in Identification and Gifted Programing: NM Public and Bureau of Indian Affairs Schools

There are important differences between New Mexico public schools and federally funded schools (BIA, grant, and contract) in the way that students who are gifted are identified and served. This may affect a student's eligibility. If students transfer to a public school in New Mexico from another agency, state, or private institution, the public schools should review their testing and school history to determine if they meet the criteria to be considered gifted under state rules for public schools.

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Chapter 4

Social and Emotional Issues of Students who are Gifted



Educating the mind without educating the heart is no education at all.
—Aristotle

Social and Emotional Issues of Students who are Gifted

Introduction

Students who are gifted often have uneven development in their cognitive, social/emotional, and physical abilities. This disparity, combined with heightened intensity, creates inner experiences and awareness that are different from the norm. This uniqueness of the gifted makes them particularly vulnerable and requires flexibility and sensitivity in parenting, teaching, and counseling.

The differing rates of development often result in an inappropriate match between the school curriculum and the students' academic needs. This may be demonstrated by a lack of conformity to cultural expectations based on the chronological age of the student, problems relating to age peers, and preference for older companions.

Several intellectual and personality attributes characterize students who are gifted and should be noted. These characteristics may be strengths, but potential problems also may be associated with them (Clark, 1992; Seago, 1974).

National Association for Gifted Children (NAGC) Standard for Learning and Development

Description

Educators, recognizing the learning and developmental differences of students with gifts and talents, promote ongoing self-understanding, awareness of their needs, and cognitive and affective growth of these students in school, home and community settings to ensure specific student outcomes.

Guiding Question

Considering the range of student interest, ability, and talent, what steps are necessary to ensure that educators are able to recognize the learning and developmental differences of gifted and talented students, promote student ongoing self-understanding, and promote student cognitive and affective growth in school, at home, and in community settings?

Source: National Association for Gifted Children (NAGC), 2011.

Unique Social and Emotional Issues of Students who are Gifted

All students face emotional and developmental issues at all phases and ages. Students who are gifted also experience additional challenges—and experience them intensely. The following summaries are adapted from the work of Earle (2003) regarding these unique issues, presented in alphabetical order, not in order of importance or frequency.

Acceleration

Students who are gifted often deal with difficult decisions about accelerated (single subject or full grade) classes. Acceleration may clearly be the best educational option, but social and emotional aspects must be considered. Should the student skip a grade or be accelerated in just the strength area, if at all? How will he or she handle the additional expectations and stress, including being in class with older students? The *Iowa Acceleration Scale, 3rd Edition* is a tool to help schools make effective decisions regarding a grade-skip. See <http://www.accelerationinstitute.org/Resources/IAS.aspx>

Asynchronous Development

Students develop at different paces in different areas. Students who are gifted often function at one age level intellectually, another socially, and yet another emotionally. People who treat them like the little adults that they sound like may be critical when they act in childish (actually age-appropriate) ways.

Chameleon Effect

Students who feel it is not cool to be smart may hide their abilities to blend in (and become friends with) others their own age. Girls may not work up to their academic potential, so they do not show up the boys. Parents, teachers, and other educators may need to encourage students who are gifted to keep showing their bright sides and building on their strengths.

Communication

Peers often do not understand the abstract thoughts or advanced vocabularies of students who are gifted. They may be interested in concepts that their peers do not understand.

Disorganized/Lacking Study Skills

Because of divergent thinking and excellent memory skills, students who are gifted may not learn to organize or prioritize their work, or even study. If schoolwork is below their ability level, these skills may not be necessary. However, when they do encounter challenging work, they may not have the necessary organization or study skills they need.

Misunderstood

Students who are gifted may be misunderstood by their teachers and by their peers. Teachers may misinterpret their students who are gifted as having Attention Deficit Hyperactivity Disorder (ADHD) or think that students who are highly sensitive, fearful, or

intense are emotionally disturbed. Students who are gifted do not just feel misunderstood—they often *are* misunderstood.

Multiple Potentials

Being good at many things sounds like a wonderful problem to have, but students who are gifted may feel overwhelmed or confused by having too many interests and abilities. Because they have strengths in so many areas, choosing a career path may be difficult.

Overexcitabilities

Students who are gifted experience life with greater intensity than others because of the ways their brains process information. According to Tolan (1999), Dabrowski identified the following overexcitabilities, which appear more frequently in people who are gifted: emotional, intellectual, sensual, psychomotor, and imaginal. These overexcitabilities may lead to students who are gifted being more vulnerable, more absorbed, and/or more sensitive than their peers.

Ownership of Their Gifts

The student who is gifted, the school, and the family must think about who “owns the gift.” What do students who are gifted owe society, their community, their schools, their families, and themselves? Where do they fit in the universal scheme of things?

Perfectionism

Many students who are gifted strive for excellence, which can be a problem if it becomes an obsession with trying to be perfect. Social relations and creativity may be impaired by the quest for perfection. Students who are gifted may develop physical (headaches, stomachaches, even depression) or emotional symptoms (avoiding anything that cannot be done perfectly or not turning in their schoolwork because it is just not good enough).

Selective Learning/Underachievement

Students who are gifted may select not to perform academically to their potentials. Others may have social or emotional problems that get in the way of achieving. Determining the type and cause of their underperformance is essential. Changes may need to be made at school, home, or both, before the student who is gifted becomes actively engaged in school and, therefore, productive.

Self-Concept

If they compare themselves to peers, students who are gifted may have over-inflated self-concepts. However, if they compare themselves to those who excel in given fields, they may develop low self-concepts and think they can never be that good.

Social Isolation

Feeling different may range from not sharing similar interests to having interests beyond those of their peers, which makes it difficult to find true friends. Feelings of isolation can increase when attention is given to them because of their giftedness.

Benefits of Cluster Grouping

Studies have shown that students who are gifted benefit from learning together and perform better academically when placed with students who have similar areas of strength and ways of thinking and learning. Cluster grouping of students who are gifted allows them to learn together. They can better understand and accept their learning differences if there are others just like them in the class. Students who are gifted need consistent opportunity to learn new material and to develop the behaviors that allow them to cope with the challenge and struggle of new learning. They need consistent opportunities to learn at a challenging level. When they work in their own cooperative learning groups, they are more likely to develop positive attitudes about learning. Students who are gifted need time to be together when they can just be themselves. They also feel more comfortable when there are other students with similar needs in the class. Studies clearly document the benefits of keeping students who are gifted together in their areas of greatest strength for at least part of the day. If cluster groups are not formed, students who are gifted may find their achievement and learning motivation waning (Winebrenner & Devlin, 1996). Suggested sizes for cluster grouping and gifted education classes are 6–10 students for elementary grades and 10–15 students for middle and high school.

The location and nature of services to students are issues that administrators and the students' IEP teams must consider when determining the students' placement.

Possible Problems that May be Associated with Characteristic Strengths of Students Who are Gifted

According to Webb (2004), there are many likely problems associated with the characteristic strengths of gifted students. Some of these typical strengths and possible problems are provided below.

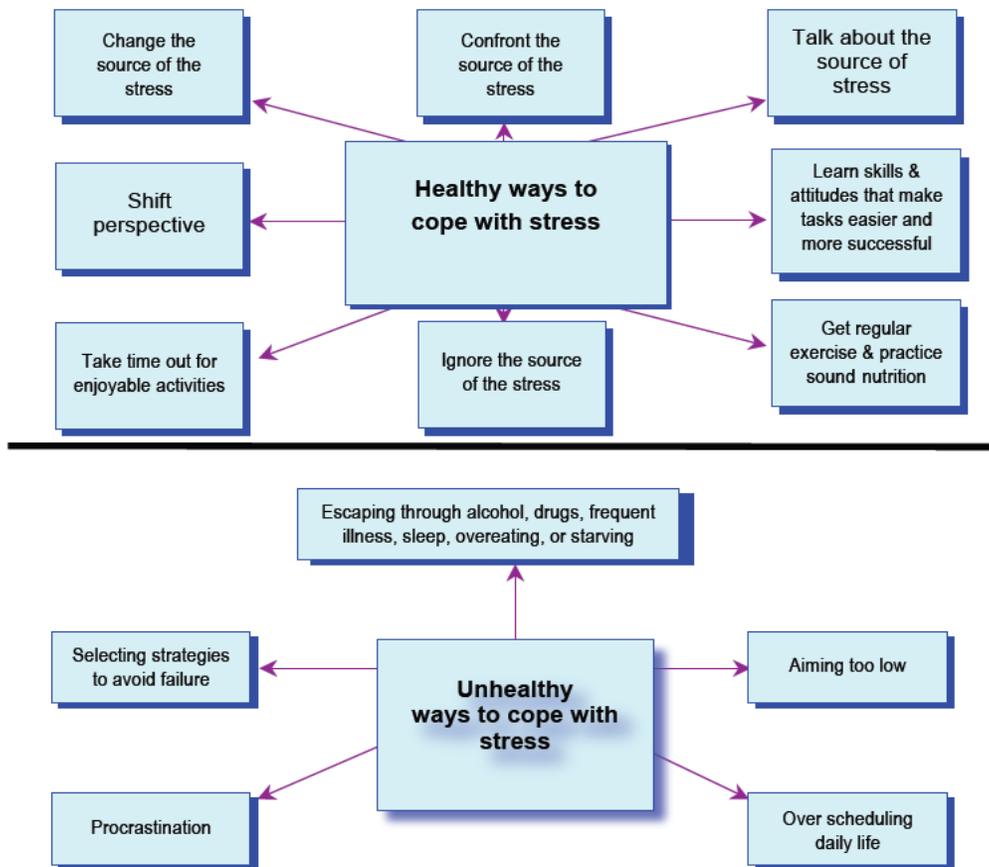
Strengths	Possible Problems
Acquires and retains information quickly	Impatient with others, dislikes basic routine
Inquisitive, searches for significance	Asks embarrassing questions, excessive interests
Intrinsic motivation	Strong-willed, resists direction
Enjoys problem solving; able to conceptualize, abstract, synthesize	Resists routine practice, questions teaching procedures

Seeks cause-effect relations	Dislikes unclear or illogical areas (e.g., traditions or feelings)
Emphasizes truth, equity, and fair play	Worries about humanitarian concerns
Seeks to organize things and people	Constructs complicated rules, often seen as bossy
Large vocabulary and advanced broad information	May use words to manipulate, bored with school and same-age peers
High expectations of self and others	Intolerant, perfectionistic, may become depressed
Creative, inventive; likes new ways of doing things	May be seen as disruptive and out of step
Intense concentration, long attention span, persistence in areas of interest	Neglects duties or people during periods of high focus, resists interruptions, and may be stubbornness
Sensitivity, empathy, desire to accepted by others	Sensitive to criticism or peer rejection
High energy, alertness, eagerness	Frustration with inactivity, may be seen as hyperactive
Independent, prefers individualized works, relies on self	May reject parent or peer input, nonconforming
Diverse interests and abilities; versatility	May appear disorganized or scattered, frustrated over lack of time
Strong sense of humor	Peers may misunderstand humor, may become class clown for attention

Stress and the Gifted Learner

Students who are gifted may experience more stress than other students. Stresses include the pressure to excel, feeling different, self-doubt, the need to prove their giftedness, and secretly fearing they will not be successful or measure up to expectations. Busy-work and tasks that are boring and monotonous are stressful to those who prefer reasoning and thinking activities. Boredom can result in anger, resentment, and setting personal goals that are much higher than those of parents and school personnel. There are times when internal conflicts may arise between trying to be like their peers and using their exceptional abilities. Students who are gifted may think that giftedness is equal to instant learning, comprehension, and mastery, and that outstanding achievement follows naturally. When work becomes more difficult, they may think they are no longer gifted, and their self-esteem may suffer. Many times, these students have to make some very difficult choices,

which may involve risk taking and moving beyond their comfort levels. This may mean having to say “no” to some attractive alternatives and capabilities. It is imperative that they understand themselves, their values, and goals so that they can make proper decisions. Thus, even decision-making can be stressful. L. S. Kaplan (1990) provides healthy and unhealthy ways for students to cope with stress in the model below.



Burnout and Giftedness

Students who are gifted can suffer burnout. It is very important that parents and teachers watch for signs and make note of any changes in the student. Kaplan (1990) suggests that the following needs be addressed to keep stress at a minimum. The need to

- understand the ways they are alike and different from others;
- accept their abilities, talents, and limitations;
- develop social skills;
- develop an understanding of the distinction between the *pursuit of excellence* and *pursuit of perfection*; and
- feel understood and accepted by others.

Van Tassel-Baska (1990) has suggested some of the following ways to help students meet these needs:

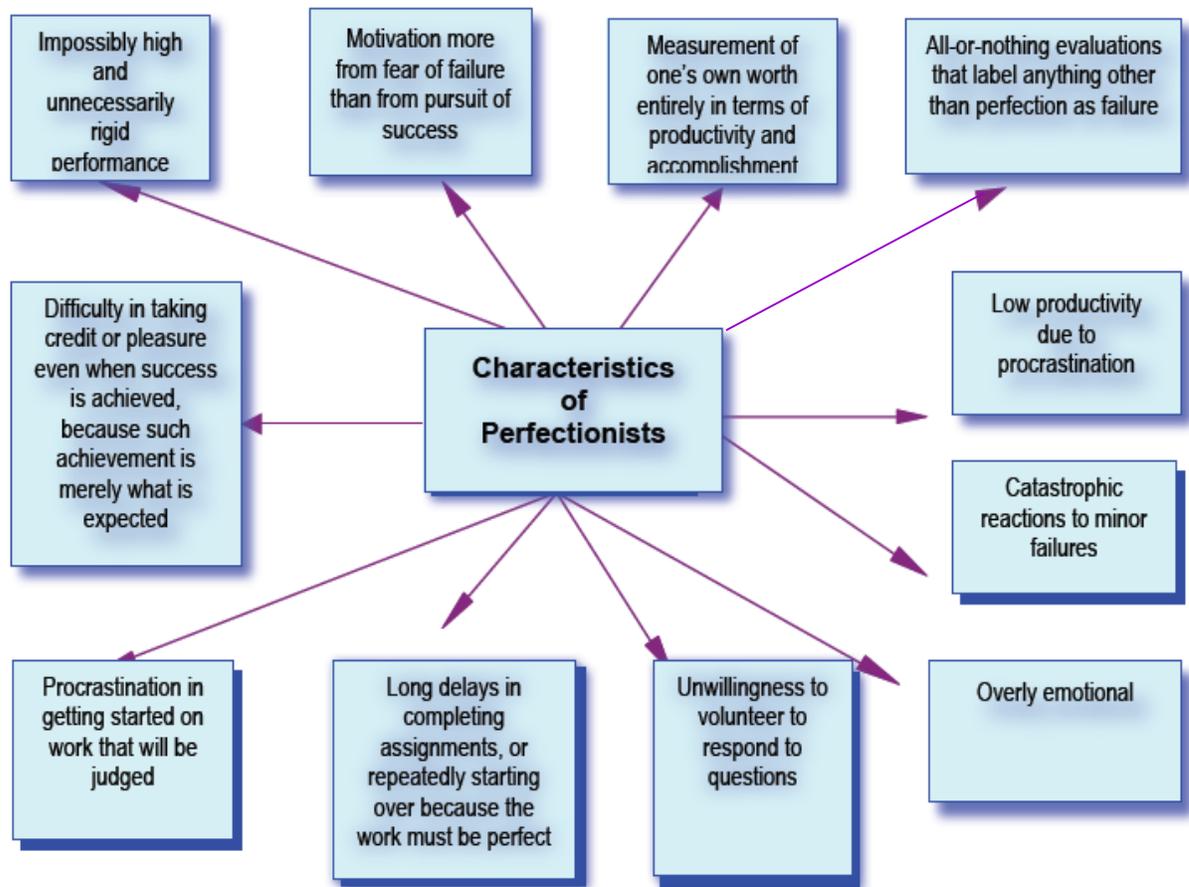
- Accept and reward their efforts and the process of working on tasks
- Be available for guidance and advice
- Encourage flexibility and appropriate behavior
- Help them become whole persons
- Help them learn empathy, teamwork, and tolerance
- Help students develop realistic and accurate self-concepts
- Let them enjoy the process of creating new ideas
- Let them live their own lives
- Provide loving concern and guidance
- Recognize and understand their emotions
- Show acceptance and encouragement
- Show patience and help them develop patience with themselves
- State expectations and limits and give examples, because they are not mind readers
- Teach them when and how to use their novel perceptions, creativity, and independent thoughts

According to Silverman (2003), stress can be magnified in students who are gifted, because they experience life intensely. The following are ways to help students cope with stress at school and at home:

- Allow the students to express their feelings
- Ask if the plan worked and revise if necessary
- Brainstorm together some alternatives for dealing with the situation
- For generalized stress, do relaxation exercises together, play soft music at bedtime, visualize peaceful scenes, read or play a quiet game, see a funny video, or do massage
- Go for a walk together, and let students talk it out
- If stress seems out of control, consult a therapist
- Validate the students' perceptions
- Say something like, "Let's see if we can make this better."

Perfectionism

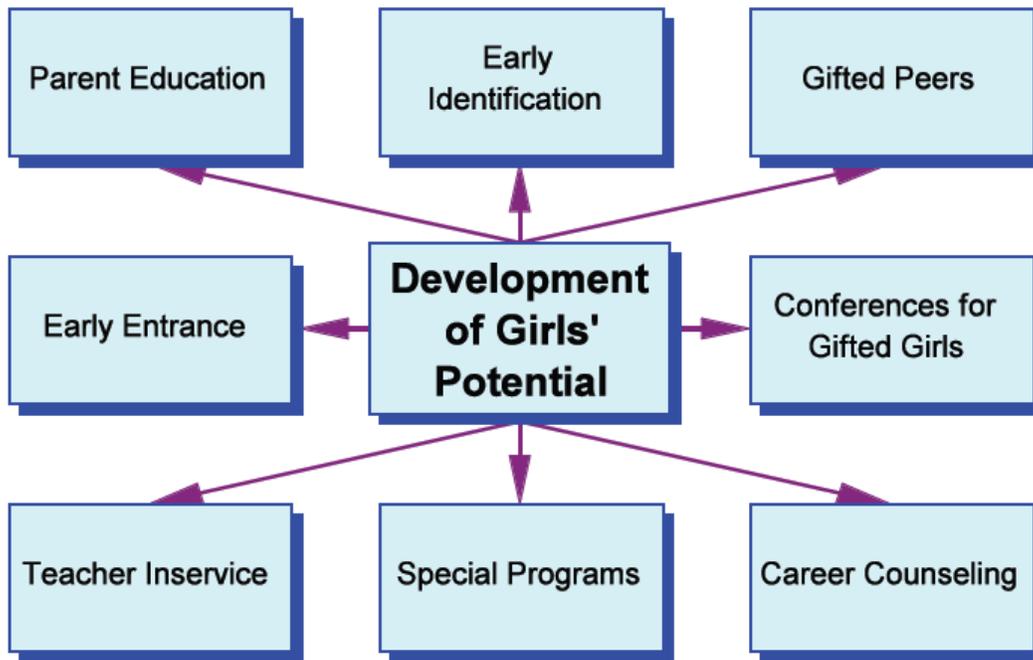
Students who are gifted may not be satisfied with merely doing well or even with doing better than their peers. Fear of failure can be destructive to achievement and motivation, especially if it is powerful and persistent. Many students who are gifted feel isolated and may become alienated underachievers. Perfectionists may expend more energy avoiding mistakes than learning. According to Jere Brophy, one or more of the following characteristics may be exhibited by perfectionists (Brophy, 1996):



Gender Issues

Social Development of Girls who are Gifted

Much has been researched and written about helping girls who are gifted reach their potentials. Linda Silverman (2003) suggested several essential guidelines that facilitate the development of the potential in girls who are gifted.



Research has consistently found that girls with high ability may feel compelled to hide their intelligence. Girls who are gifted are often less popular with boys, and boys value the reputation of being an intellectual to a much greater extent than girls. Even more disturbing are the findings from the research on self-concept and achievement. Girls who are gifted with high grade point averages (GPAs) were significantly more depressed, had more psychosomatic symptoms, and had lower self-esteem than boys with high GPAs. Self-image scores in high achieving junior high school girls increased as their grades decreased, whereas the opposite was true for boys. (Silverman, 2003).

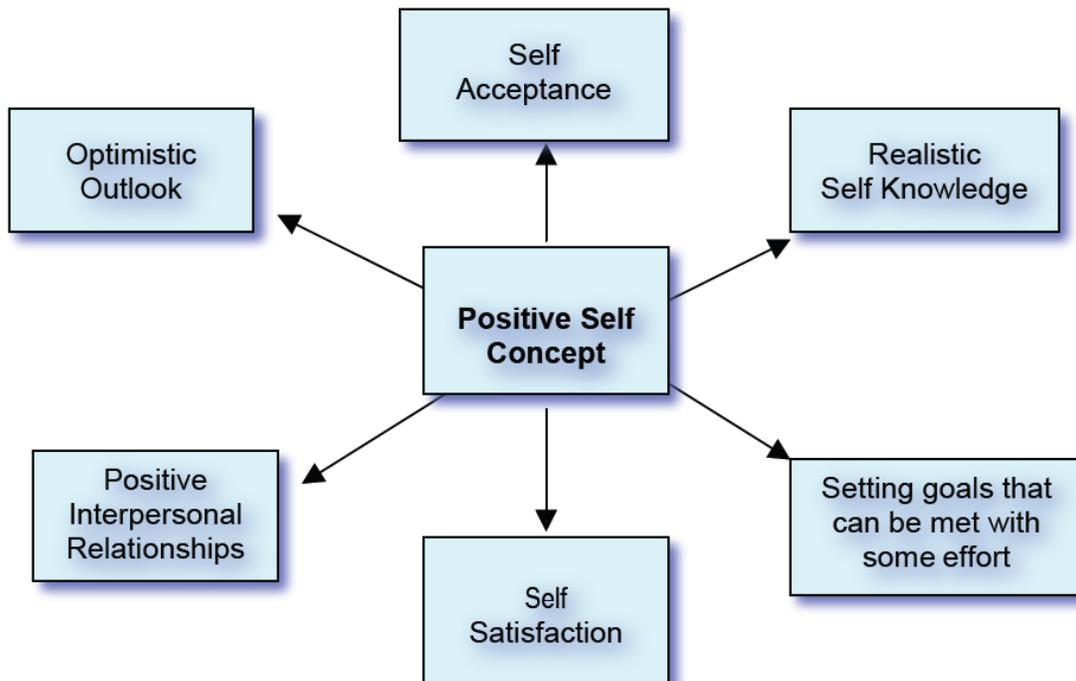
Social Development of Boys who are Gifted

Boys who are gifted may have difficulty relating to others who are not at their developmental level. They often think games are silly or babyish. Boys who are gifted with superior intellect may get angry when others do not follow their rules. They may be unable to understand that their same-age friends are not mentally ready to understand the meaning of rules. If others laugh at them or reject them, boys who are gifted may conclude that there is something wrong with them (Silverman, 2003).

Because boys who are gifted are unusually sensitive, they take teasing and criticism personally. If boys who are gifted have early contact with their cognitive peers, they do not see themselves as different or weird. They can make friends more easily with others who think and feel as they do, who communicate on their level, and share their interests. Association with true peers prevents alienation (Silverman, 2003).

Self-Concept

Plucker and Stocking (2001) emphasize the importance of considering affective issues related to the development of students who are gifted. Positive self-concept leads to the following outcomes:



Characteristics of Special Populations of Students who are Gifted

Special populations of students who are gifted include students with various disabilities as well. Willard-Holt (1999) provides specific characteristics that might be associated with students who are gifted with various disabilities. Adapted with categorization, they are listed below.

Attention Deficit Hyperactivity Disorder (ADHD)

Students who are gifted and exhibit signs of ADHD are generally more active and restless than their peers. Following are some characteristic behaviors that may be observed.

Attention

- May appear inattentive to details
- Poorly sustained attention spans
- Shift often from one uncompleted activity to another
- Variability in both task performance and the time used to accomplish tasks

Executive function

- Difficulty adhering to rules and regulations
- Diminished persistence on tasks not having immediate consequences
- Often loses things

Impulsivity

- Poor ability to delay gratification
- Unable to follow commands to regulate or inhibit behavior in social contexts
- Often interrupt or intrude on others (e.g., butt into games)
- Often talk excessively
- Social/Emotional
- Highly sensitive to criticism
- Problem behaviors exist in all settings, but in some settings, problem behaviors are more severe

Questions to Ask in Differentiating between Giftedness and ADHD

Appropriate modifications

- Have any curricular modifications been made in an attempt to change inappropriate behaviors?

Behavioral analysis

- Could the behaviors be responses to inappropriate placement, insufficient challenge, or lack of intellectual peers?
- Do the behaviors occur at certain times of the day, during certain activities, with certain teachers, or in certain environments?
- Has the school conducted a Functional Behavioral Assessment (FBA) to adequately determine answers to the above questions and develop a plan for the behavior?

Interest level

- Is the student able to concentrate when interested in the activity?

Student's self-reflections

- Has the student been interviewed? What are his/her feelings about the behaviors?
- Does the student feel out of control? Do the parents perceive their child as being out of control?

Learning Disabilities

Students who are gifted with learning disabilities often have a wide variety of interests. Additionally, the following characteristics may be present.

Academics

- Difficulty with computation
- Exceptional ability in geometry
- Good mathematical reasoning ability
- Exceptional ability in the sciences

Auditory and/or visual processing

- Difficulty with phonics, and/or spelling

Creativity

- Exceptional ability in arts
- Exceptional ability in music
- Imaginative and creative

Executive function

- Difficulties with sequential tasks
- Distractibility and/or disorganization
- Often fail to complete assignments

Memory

- Difficulty with memorization
- Keen visual memory

Oral and written language

- Advanced vocabulary
- Grasp of complex language including metaphors, analogies, satire
- Sophisticated sense of humor

Social/emotional

- Perfectionism
- Super-sensitivity
- Unreasonable self-expectations

Thinking skills

- Comprehension of complex systems Keen spatial skills—visual perceptual/spatial/motor skills
- Good problem-finding and problem-solving skills High abstract reasoning ability—thinking skills
- Insightful

Physical Differences

Students who are gifted and have physical challenges may benefit from some of the considerations that are listed below.

Adaptation and modification

- Creativity in finding alternate ways of communicating and accomplishing tasks
- Develop compensatory skills

Cognitive strengths or possible challenges

- Advanced academic skills
- Cognitive development that may not be based on direct experience
- Curiosity, insight
- Exceptional problem-solving skills
- Impressive store of knowledge
- Possible difficulty with abstractions
- Possible limited achievement due to pace of work
- Rapid grasp of ideas
- Superior memory

Executive function

- Ability to set and strive for long-term goals

Social-emotional

- Greater maturity than other children their age
- Good sense of humor
- Motivation to achieve
- Persistence, patience
- Self-criticism and perfectionism

Visual Impairments

Students who are gifted and have visual impairments may benefit from some of the considerations that are listed below.

Cognitive strengths

- Advanced problem-solving skills
- Cognitive rate of development may be slower than sighted students
- Fast rate of learning
- Progress may be slower than sighted students in some academic area
- Superior memory

Executive function

- Excellent ability to concentrate

Language

- Ease in learning Braille
- Superior verbal communication skills and vocabulary

Social-emotional

- Great persistence
- Motivation to know more

Hearing Impairments

Students who are gifted and have hearing impairments may benefit from some of the considerations that are listed below.

Appropriate modifications

- Ability to function in the regular school setting with assistance despite impairment
- Enjoy manipulating environment
- Nontraditional ways of getting information
- Symbolic language abilities (different symbol system)

Cognitive strengths and possible challenges

- Delays in concept attainment
- Early reading ability
- Excellent memory
- High reasoning ability
- Ingenuity in solving problems
- Intuition
- Rapid grasp of ideas
- Wide range of interests

Social-emotional

- Self-starters
- Good sense of humor

Selective Achievers/Under Achievers

Students who are gifted and are selective achievers (aka underachievers) may benefit from consideration of some of the information listed below.

Executive function

- Begin many projects, see few to completion
- Development of judgment lags behind intellectual growth
- Disorganized—Loses work, forgets homework
- Low tolerance for persistence on tasks that seem irrelevant
- Poor attention span, daydreaming

Behavioral analysis

- Difficulty restraining desire to talk; may be disruptive
- Do not exhibit problem behaviors in all situations
- High activity level; may need less sleep
- Intensity may lead to power struggles with authorities
- May appear careless
- Question rules, customs, and traditions

Social-emotional

- Highly sensitive to criticism

Accommodations for Gifted Students with Attention Deficit Disorders (ADD)

Students with ADD often have serious problems in school. Inattention, impulsiveness, hyperactivity, disorganization, and other difficulties can lead to unfinished assignments, careless errors, and behavior that is disruptive to one's self and others. Though the implementation of relatively simple and straightforward accommodations to the classroom environment or teaching style, teachers can adapt to the strengths and weaknesses of students with ADD. Small changes in how a teacher approaches the student with ADD or in what the teacher expects can turn a losing year into a winning one for a child. Examples of accommodations that teachers can make to adapt to the needs of students with ADD are grouped below according to areas of difficulty (Parker, 1999).

Inattention

- Cue student to stay on task (i.e., private signal)
- Give clear, concise instructions
- Instruct student in self-monitoring using curing
- Pair written instructions with oral instructions
- Provide peer assistance in note taking
- Seat student in quiet area
- Seek to involve student in lesson presentation

Impulsiveness

- Attend to positive behavior with compliments, etc.
- Acknowledge positive behavior of nearby student

- Ignore minor, inappropriate behavior
- Call on only when hand is raised in appropriate manner
- Praise student when hand raised to answer question
- Increase immediacy of rewards
- Instruct student in self-monitoring of behavior (e.g., hand raising, calling out)
- Use time-out procedure for misbehavior (e.g., avoid lecturing or criticism)
- Seat student near good role model or near teacher
- Set up behavior contract

Motor Activity

- Allow student to stand at times while working
- Provide opportunity for “seat breaks,” (e.g., run errands)
- Provide short breaks between assignments
- Remind student to check work product if performance is rushed and careless
- Give extra time to complete tasks (especially for students with slow motor tempo)
- Supervise closely during transition times

Mood

- Provide reassurance and encouragement
- Frequently compliment positive behavior and work product
- Speak softly in non-threatening manner if student shows nervousness
- Review instructions when giving new assignments to make sure student comprehends directions
- Look for opportunities for student to display leadership role in class
- Conference frequently with parents to learn about student’s interests and achievements outside of school
- Send positive notes home
- Make time to talk alone with student
- Encourage social interactions if student is withdrawn or excessively shy
- Reinforce frequently when signs of frustration are noticed
- Look for signs of stress build up and provide encouragement or reduced workload to alleviate pressure and avoid temper outburst
- Spend more time talking to students who seem pent up or display anger easily
- Provide brief training in anger control: encourage student to walk away; use calming strategies; tell nearby adult if getting angry

Academic Skills

If oral expression is weak

- accept all oral responses
- substitute display for oral report

- encourage student to tell about new ideas or experiences
- pick topics easiest for student to talk about

If math is weak

- allow use of calculator
- use graph paper to space numbers
- provide additional math time
- provide immediate correctness feedback and instruction via modeling of the correct computational procedure

If reading is weak

- avoid oral reading
- provide additional reading time
- shorten amount of required reading
- select text with less on a page
- use previewing strategies

If written language is weak

- accept non-written form of reports (e.g., displays, oral, projects)
- accept use of typewriter, word processor, tape recorder
- do not assign large quantity of written work
- test with multiple choice or fill-in questions

Organizational Planning

- Supervise student closely during transition times
- Seat student near teacher
- Set up behavior contract
- Implement classroom behavior management system
- Instruct student in self-monitoring of behavior

Socialization

- Praise appropriate behavior
- Monitor social interactions
- Set up social behavior goals with student and implement reward program
- Prompt appropriate social behavior either verbally or with private signal
- Encourage cooperative learning tasks with other students
- Provide small group social skills training
- Praise student frequently
- Assign special responsibilities to student in presence of peer group others to observe student in a positive light

Strategies for Students who are Gifted

Listed below are categories of various strategies that may be used with students who are gifted. Strategies must be in alignment with individual student needs.

- Acceleration
- Curriculum Compacting
- Enrichment Opportunities
- Independent Study
- Motivating
- Questioning
- Social and Emotional Teaching Strategies
- Using Media and Technology

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Chapter 5

Individualized Education Program (IEP)

Development for Students Identified as Gifted



The task of the modern educator is not to cut down jungles,
but to irrigate deserts.

— C.S. Lewis

IEP Development for Students Identified as Gifted

State Guidance for IEP Development

An Individualized Education Program (IEP)

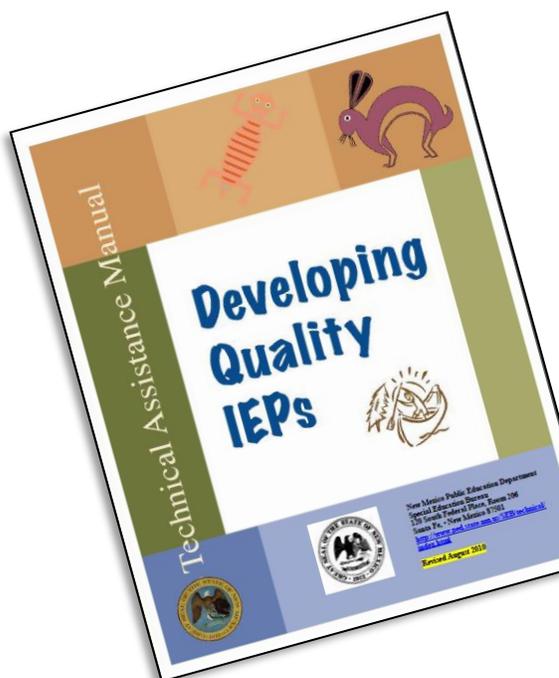
The IEP is a written statement for each student with a disability or identified under state criteria as gifted. It sets forth the essential components of all the specially designed instruction and related services the student will receive, as well as supplementary aids and services, program modifications, and supports for school personnel serving the student.

State rules

These require that every student 1) properly identified as gifted, and 2) determined to be in need of special education services, 3) must have a written IEP.

Guidance and requirements

In New Mexico, IEPs are developed using guidance and requirements from the state's technical assistance manual, *Developing Quality IEPs*, available at the link below. IEP teams for students who are gifted must understand and follow this guidance <https://webnew.ped.state.nm.us/wp-content/uploads/2018/03/Developing-Quality-IEPs.pdf>



The manual contains information that IEP teams need to know about these topics:

- The special education process
- The IEP team
- Preparing for the meeting
- Before, during, and after the meeting
- Strategies for effective meetings
- Writing the IEP document
- IEP components
- IEP implementation and follow up

In addition, the manual contains a variety of handy reproducible forms, including the state-recommended IEP form—also applicable to IEPs for students who are gifted

Special Considerations for IEPs for Students who are Gifted

In addition to the procedural requirements governing IEP development found in state rule at <http://164.64.110.134/parts/title06/06.031.0002.html>, IEP teams for students who are gifted must give special consideration to the following when developing the specially designed services.

IEP Team

- The parent(s)
- The student
- The experts:
 - Someone who is knowledgeable about gifted education
 - One general education teacher
 - One or more qualified district representatives
- If appropriate, the student sits on the IEP team, especially if transition services are being discussed. In New Mexico, students 14 and older must be invited to attend the IEP meeting. If the student does not attend, then the IEP team must take other steps to ensure that the student's preferences and interests are considered in developing the IEP.
- The parent or the district may invite anyone else who may have special expertise or knowledge about the student. This may include advocates.

IEP Goals

Baseline data

- IEP goals are based on the baseline data in the Present Levels section. See "Understanding Present Levels of Academic Achievement and Functional Performance" and "Understanding Measurable Goals" on pages 62–69 of this manual.

Measurable and annual goals

- All IEPs must contain measurable, annual goals.
- The annual goals included in each student's IEP are individually selected to meet each of the unique educational needs that stem from the student's present levels of academic and functional performance, and the area of qualification.
- Goals must be tied to the state's standards and benchmarks.
- Annual goals are not required for areas of the general curriculum in which the student's areas of giftedness or need do not affect the ability to be involved and progress in the general curriculum.
- The IEP must contain a goal for every area of qualification, and it is likely that at least two to three goals may be necessary.
- The IEP team develops a student's annual goals based on the student's needs.
- Goals must involve specially designed direct instruction.
- Acceleration (single subject or full grade) is a programming strategy for which a goal must be written.

- As in all IEPs, the goal addresses areas of qualification and is monitored and reviewed for appropriateness.
- Taking classes at a higher grade level or at a college/university requires a goal, even though direct instruction is provided by the teacher or professor of the course and not by the student's regular teachers.

IEP Services and Supports

IEP services and supports are designed in such a way to achieve students' annual goals.

Enhanced courses

If the student is expected to learn and demonstrate mastery of more or different curricular content than students without exceptionalities, then the course has to be enhanced (e.g., compacted curriculum, independent projects, subject acceleration, course at a higher grade level).

Accommodations to curriculum and/or testing

A student identified as gifted should have the opportunity to demonstrate mastery of the curricular content at any time. Pre-testing is an accommodation that allows students to demonstrate mastery through prior knowledge. Pre-testing frees up time during regular education for students identified as gifted. This provides opportunities for students to progress at an advanced level and pace of instruction in content area(s) of students' individual interests and expertise throughout the general curriculum and in areas such as creativity, leadership, and social emotional development.

See also Chapter 6 of this manual, Program Design and Service Delivery.

Placement (Location and Nature of the Services)

A student who is identified as gifted is afforded a continuum of placement options for the implementation of the services in the IEP. For understanding this continuum and how placement decisions are made, see the booklet at this link: <https://webnew.ped.state.nm.us/wp-content/uploads/2018/03/Making-Placement-Decisions-in-the-Least-Restrictive-Environment.pdf>

The consideration of the location of the services should be based on the individual needs of the student, not on the areas of giftedness or convenience of the staff. The IEP, to the maximum extent appropriate, provides that a student requiring specially designed gifted services is educated with peers of equal ability.

Research indicates that LRE for students identified as gifted may not be the regular education classroom. That is, for most students identified as gifted, the need to provide gifted education services in a pull-out setting outweighs the potential negative social and educational consequences of missing regular education classroom activities, discussions, instruction, and social interaction with classmates. Therefore, delivering services in cluster grouping with other students who are gifted outside the regular classroom, for at least part of the day, may be beneficial. (See pages 42-43.)

This does not mean that *all* gifted education services are delivered outside the general education classroom. “No single program fully addresses all the psychological and emotional needs of students.” (Delcourt, Loyd, Cornell, & Goldberg, 1994, p. 1). See also Chapter 6 of this manual.

Other placement options may be appropriate. For example, students who are gifted may have accommodations or be participating in an enhancement of the 5th grade curriculum. Or, they may be proceeding through the general curriculum at a different level (e.g., may be working on skills in the 8th grade curriculum).

Participation in Assessments

Students identified as gifted will participate in standardized assessment program without accommodations, unless otherwise specified by the IEP team.

Behavioral Concerns

Just as for students with disabilities, the IEP team must consider whether the student’s behaviors impedes their learning or that of others.

- Behavioral Intervention Plan (BIP). If behavior interferes with learning, then the student’s IEP must include, as a supplementary service and aid, strategies to address that behavior, including positive behavioral interventions, strategies, and supports through a written BIP. See the following link at <https://webnew.ped.state.nm.us/wp-content/uploads/2018/03/Addressing-Student-Behavior.pdf>
- Functional Behavioral Assessment (FBA). A BIP is based on an FBA. For more information about an FBA, see the state’s technical assistance manual *Addressing Student Behavior* at <https://webnew.ped.state.nm.us/wp-content/uploads/2018/03/Addressing-Student-Behavior.pdf>

Related Services

The IEP team makes decisions about any type of related services, as well as the supplementary aids and supports, required to meet the needs of an individual student identified as gifted.

Understanding Present Levels of Academic Achievement & Functional Performance

Baseline

The part of the IEP that addresses the student’s present levels of performance is the blueprint for the whole IEP document. It establishes a baseline from which the other components are built and supports and links together the entire structure. The purpose of the statement is to identify precisely where the student is currently functioning and, thereby, laying the groundwork for developing an appropriate and quality plan for them.

To record the present levels, the IEP team develops statements that give a specific account of the student's skills, knowledge, behaviors, or other areas to be addressed in the IEP. The present levels should also indicate problems that interfere with the student's education and detail the needs of the student so that all team participants (including any outside service providers) have an accurate picture of the student.

Statements of present levels align with the following criteria:

- **Current**—based on recent data, observation, and evaluation
- **Relevant**—related to how the students' giftedness or other identified needs affects their education
- **Specific**—described as precisely as possible
- **Objective**—unbiased and from a variety of sources, such as formal observations, work samples, input from teachers, parents, service providers, formal and informal assessments and tests
- **Measurable**—conclusions from assessments, test scores, and other quantifiable data

The baseline data in present levels are derived from locally-developed or adopted assessments that align with the general education curriculum. Measurable annual goals describe the students' performance anticipated within one year and are directly related to the present levels. Present levels may also contain general information that describes students and communicates a more global understanding of students. This information might include the results of nationally normed assessments of general intelligence, academic achievement, or input from teachers, parents, or students.

The IEP team considers the following questions when writing present levels:

- **Present levels.** In areas of concern, what are the student's present levels in relationship to state standards and benchmarks in the general education curriculum?
- **Areas of concern.** Are there areas of concern not reflected in the general education curriculum (e.g., social skills)?
- **Student strengths.** What strengths of the student are relevant in addressing the identified concerns?
- **Educational supports and interventions.** What educational supports and interventions have enhanced the student's educational success?
- **Upcoming concerns.** What areas of concern for the student will require gifted education and related services in the coming year?
- **Areas of greatest import.** What areas are of greatest importance to the student?
- **State standard and benchmarks.** Do state standards or benchmarks in the general education curriculum describe a reasonable annual goal? If yes, can the state standard or benchmark be written to goal specifications?

Understanding Measurable Goals

Measurable annual goals are descriptions of what a student can reasonably be expected to accomplish within a 12-month period with the provision of gifted education (specially designed instruction) and related services. There is a direct relationship between the measurable annual goals and the needs identified in the *Present Levels* section of the IEP. Because present levels are baseline data for the development of measurable annual goals, they must be used as a starting point to craft the annual goals.

Critical components of a well-written goal within an IEP are the following:

Timeframe

Timeframe is usually specified in the number of weeks or a certain date for completion.

- In 36 instructional weeks
- By November 19, 2020
- By the end of the 2021–2022 school year

Conditions

Conditions specify the manner in which progress toward the goal is measured. Conditions are dependent on the behavior being measured and involve the application of skills or knowledge.

- When presented with 2nd grade-level text
- When given a mixed, 4th grade-level math calculation probe
- When given a story prompt and 30 minutes to write

Behavior

Behavior clearly identifies the performance, need, or problem. It reflects an action that can be directly observed and is measurable. Or, it might reflect an increase or decrease in a particular behavior.

- Sarah will read . . .
- Claude will correctly solve . . .
- Mary will score . . .
- Mario will decrease. . .

Criterion

Criterion identifies how much, how often, or to what standards the behavior must occur in order to demonstrate that the goal has been reached. The criterion specifies the amount of growth the student is expected to make by the end of the annual goal period.

- 96 words per minute with 5 or fewer errors
- 85 percent or more correct for all problems presented
- A score of 4 or better when graded according to the 6-trait writing rubric
- Increase from 30 percent to 80 percent

Method of Measurement

The method of measurement is a description of how progress or mastery will be measured. There are many kinds of measurements that schools can use, and the IEP team determines which is appropriate. Examples includes the following:

- curriculum-based assessments
- district short-cycle assessments
- anecdotal records
- work samples
- evidence in student's portfolio
- classroom diagnostic tests
- pre/post assessments
- teacher observation log

The Stranger Test

Well-written, measurable annual goals will pass the *Stranger Test*. This test involves evaluating the goal by the components above to determine if it is written so that a teacher who does not know the student could use it to develop appropriate instructional plans and monitor/evaluate the student's progress.

Number of goals

The number of goals in the IEP depends on the areas of the students' needs. Prerequisite skills, immediate needs, and general applicability are all factors to consider when establishing priorities. Parents, regular education teachers, and students are also essential sources of information when setting priorities. Again, each IEP must have at least one annual, measurable goal, but likely more depending on the student's unique needs.

Examples of Present Levels and Measurable Annual Goals

Important Tips

Write goals in plain, understandable English, no jargon, no slang.

- If necessary, use more than one sentence rather than writing one long sentence.
- Check to ensure that spelling and grammar are accurate. There is nothing worse than a colleague or parent spotting a spelling error or poor grammar on an IEP written by an educator.
- Avoid resources that generate cookie-cutter goals. Goals must be individualized.

Examples—Category: Mathematics

Grade 3

Present Level

Jeff met criteria in math and critical thinking. He works quickly through the grade-level assignments and shows interest in learning higher-level math concepts.

Measurable Annual Goal

Jeff will complete math assignments that address content with greater depth and higher levels of complexity and focus on open-ended investigations, throughout the year, independently and in small groups, at the proficient level or higher, as evidenced by rubrics, teacher observation, and student self-evaluation.

Grade 6

Present Level

Julius qualified in math and can confidently solve algebraic equations with a single variable and solve word problems when the equation is provided.

Measurable Annual Goal

In a year's time while working independently, Julius will simplify and solve algebraic equations with two variables and parentheses and write and interpret his own equations to solve word problems with 80 percent or better accuracy, as measured by classroom assessments.

Examples—Category: Critical Thinking

Grade 6

Present Level

Meri met criteria in critical thinking. She is skilled in developing hypotheses and performing basic research.

Measurable Annual Goal

Within one year, Meri will apply scientific methods in qualitative and quantitative analysis, data gathering, direct and indirect observation, predictions, and problem identification in teacher- and student-selected research projects, with 90 percent or higher accuracy, as assessed by teacher- or student-created rubrics.

Grade 7

Present Level

José qualifies in critical thinking. He asks deeper-level questions about classroom materials and curriculum and exhibits a high-level of curiosity.

Measurable Annual Goal

In a year's time, José will work independently and in teams to create solutions to a variety of critical thinking challenges across disciplines, as presented in the gifted setting, with an 80 percent or better achievement score, as assessed by teacher rubrics.

Examples—Category: Language Arts

Grade 4

Present Level

Alex qualified in reading. He is able to grasp themes and patterns within a single source in a variety of content areas.

Measurable Annual Goal

Within a year's time while working across content areas, Alex will read texts from a variety of academic disciplines and cultures and explore common themes and patterns by comparing and contrasting them in a chart, poster, paper, or other media with 85 percent or better accuracy, as measured by classroom assessments.

Grade 11

Present Level

Angela is an 11th grader and qualified in reading and creativity. Angela is an avid reader and has an advanced vocabulary. She has expressed interest in mastering a broader spectrum of presentation skills.

Measurable Annual Goal

In preparation for her post-secondary education and career, over the next year, Angela will use high-level critical thinking skills to integrate and evaluate multiple sources of information presented in different media and formats, including in prose, in order to address a question or solve a problem with 85 percent accuracy, as determined by teacher log and assessment.

Examples—Category: Creativity

Grade 3

Present Level

Isaiah met gifted criteria in creativity. While he is adept at creating solutions to a number of problems, Isaiah would benefit from improving his ability to attend to detail in solving those problems and in explaining his ideas.

Measurable Annual Goal

Over this academic year, Isaiah will work individually and in teams, challenging his creative talents to generate new solutions and products in response to diverse challenges across topics. Isaiah's output will take various forms, including oral, written, and graphic, with 87 percent or better scores, based on teacher-generated rubrics.

Grade 9

Present Level

Shellie met gifted criteria in creativity and critical thinking. She is proficient in completing complex, multi-faceted projects on assigned topics.

Measurable Annual Goal

Across curriculum areas and working independently and in small groups, Shellie will devise and pursue, in-depth projects in one or more areas of interest. She will create presentations to communicate findings in at least three mediums, as evidenced by teacher observation and student work samples.

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Chapter 6

Program Design and Service Delivery



It is the supreme art of the teacher to awaken joy in creative expression and knowledge.

—Albert Einstein

Program Design and Service Delivery

Introduction

The development of appropriate gifted educational programming requires comprehensive services based on sound philosophical, theoretical, and empirical support. The belief that any kind of gifted service is better than nothing at all is often held out of fear of or reluctance to change that might improve gifted education services. Rather than any single gifted program, a continuum of programming services must exist for gifted learners.

National Association for Gifted Children (NAGC) Standard For Programming

Description

Educators are aware of empirical evidence regarding a) the cognitive, creative, and affective development of learners with gifts and talents, and b) programming that meets their concomitant needs. Educators use this expertise systemically and collaboratively to develop, implement, and effectively manage comprehensive services for students with a variety of gifts and talents to ensure specific student outcomes.

Guiding Questions

- Is a properly funded continuum of services provided that offers a variety of programming and learning options that are collaboratively developed and implemented and that enhance student performance in cognitive and affective areas?
- Has a system been put in place, including articulated policies and procedures, that allows for educators to:
 - Develop multi-year plans;
 - Plan and coordinate programming and services with the school's professional service providers; and
 - Communicate with family and community members to meet student needs and program goals?

Source: National Association for Gifted Children (NAGC), 2011.

Gifted Service Design—Description

A continuum of services is predicated on evidence that giftedness is multi-faceted. It may manifest itself in many different ways and to many degrees across individuals and/or groups of identified gifted learners. Hence, one service delivery option (e.g., monitoring) will not serve all gifted learners equally well. To ensure an appropriate education, a

continuum of services and placement is designed to address specific needs of many different types and levels of giftedness from kindergarten through grade 12.

Development of coherent services for students who are gifted requires careful planning, development, and implementation and should be differentiated according to the nature of giftedness, family, community environments, and the age of the student. Service strategies such as the following will maximize learning for each individual student:

- Cluster-group options
- Pull-out classes
- Homogeneous (ability grouping) classes
- Specialized or magnet schools
- Mentorships (Robinson, Shore, & Enersen, 2007)
- Dual enrollment classes (Colangelo, Assouline, & Gross, 2004)

Quality Services and Key Components

Students who are gifted need to be challenged in every classroom every day. It is best practices to support the development all teachers' understanding of gifted education practices. The education of students who are gifted is a shared responsibility of the gifted educator, regular classroom teacher, other school staff, and the parents. It is best practice for students who are gifted to receive services that include the following:

- Rich, rigorous and challenging content
- Student choice
- Supportive learning environment

The critical components for students who are gifted to access the best services to meet their needs should be considered:

- Curriculum and instruction that fit each student
- Students having choice in what and how they learn
- Students participating in setting IEP goals

Cluster Grouping—Best Practice to Promote Student Achievement and Exemplary Classroom Practices

This research-based best practice offers a way for schools to provide full-time services for the students who are gifted in regular education classrooms. A group of 5 to 10 identified students, usually those in the top five percent of ability in the grade-level population, are clustered in the classroom of one teacher who has had training or is willing to learn how to teach exceptionally capable learners. The other students are of mixed ability. With more than 8 to 10 students who are gifted, two cluster classrooms should be formed. Cluster grouping provides opportunities for students who are gifted to work together with peers on

instructional activities, as appropriate. There are options for cluster grouping (Bruelles, Saunders, & Cohn, 2010).

Research Study Results

Results from a three-year study from the National Research Center on the Gifted and Talented conducted by Gentry (1999) produced the following conclusions on this best practice for cluster grouping:

- **Placement.** Placed high achievers together in one classroom and challenged those students, enabling other students to become academic leaders, allowing new talent to emerge.
- **Student needs.** Made it easier for teachers to meet the needs of students in their classrooms by reducing the achievement range of students within a classroom.
- **Teacher perception.** May have improved how teachers view all their students with respect to ability and achievement when used in conjunction with challenging instruction and high teacher expectations.
- **Achievement improvement.** Improved achievement scores over a three-year period for students and increased the number of students identified as high achievers.
- **Achievement gap.** Reduced the achievement range of each flexible grouping within and between classes, providing many benefits to all students and teachers.
- **Climate change.** Positive effects of cluster grouping result from many changes in the school climate such as these:
 - Creating opportunities for staff development, emphasizing a variety of instructional strategies
 - Raising teacher expectations
 - Creating a sense of ownership
 - Creating opportunities for collaboration with colleagues and administration

Rationale for Cluster Grouping

Meeting the diverse learning needs of all students may be difficult. Often, the highest ability students are expected to make it on their own. When a teacher has several students who are gifted, taking the time to make appropriate provisions for them as a group is more effective. Furthermore, students who are gifted can better understand and accept their learning differences if they have gifted peers in the class.

Cluster Grouping within Class by Skill Level or Non-Graded by Skill Level

Instead of separating identified gifted students among classes, a cluster of 5 to 10 students is placed in one classroom with a regular education teacher who has had additional training in how to teach exceptionally capable students. Such training should include how to compact the curriculum, and how to provide enriched, accelerated, and independent study options for students who are gifted. The other students in that class are of mixed ability.

Twelve Other Programming Options

General Classroom Enrichment

One method of classroom enrichment is the use of enrichment/learning centers: An area of the classroom is set-aside for independent student activity in a particular area of study. These centers should encourage independent study and individualization in the content areas with students who are gifted. The focus should be on process rather than on content. Renzulli (1977) states that the emphasis should be on teaching a student to conduct research in the manner used by professionals in the field, rather than simply emphasizing information about the topic itself.

Acceleration Options

Acceleration means studying the regular curriculum earlier or at a faster pace than a typical student. Acceleration options offer many benefits including the following:

- improved motivation, scholarship, and confidence of gifted and talented students over time
- prevention of habits of mental laziness
- earlier access to, and completion of, more advanced opportunities
- reduction of the total cost of university education and time toward a degree and professional preparation (Swiatek, 1993, as cited in VanTassel-Baska, 2001)

Furthermore, quantitative research (Hattie, 2008) has shown that when comparing the various educational provisions typically utilized with students who are gifted, the largest effects were found using acceleration. The Acceleration Institute offers very insightful reports regarding acceleration and our educational system.

Subject Acceleration

A student is placed in a class for a part of a day with students at more advanced grade levels. The student may be assigned to a higher grade for part of the day, such as a third-grade student who goes to reading instruction in fifth grade. A middle-grade student may attend math classes at the high school or a high school student may take advanced placement (AP) college courses concurrently with high-school enrollment.

Full-Grade Acceleration (Grade skipping)

As determined appropriate by the IEP team, a student is moved ahead of normal grade placement. This may be done during an academic year such as placing a kindergarten student directly into first grade, or at year-end, promoting a 7th grader to 9th grade. Another example might be a student who spends the first semester in one grade and advances to the next grade for second semester.

The *Iowa Acceleration Scale, 3rd Edition* is a tool to help the school's Student Assistance (SAT) and IEP teams make effective decisions regarding a grade-skip. To learn more, go to resources at the chapter's end.

Advanced Classes within and across Grade Level

Advanced classes are designed for students already mastering the basic core of subject matter. Such courses offer consistent study in more depth and breadth to a curricular area with less redundancy from class to class or level to level.

Curriculum Compacting

This procedure is used for streamlining the general education curriculum for students who are capable of mastering it at a faster pace. (Reis, Burns, Renzulli, 1992) Individuals or groups of students are assessed to determine their level of proficiency in general education course outcomes, units or courses. A determination is made of content/skills not yet mastered and a plan is made to complete the remaining material and to progress to more appropriate and challenging instruction and materials.

Early Admission

A student may enter kindergarten at an earlier age than is expected. However, in New Mexico students must be at least five years old prior to 12:01 am on September 1 of the school year in order to be a qualified student who earns state funding to the district or charter school. Therefore, early kindergarten admission is not available in New Mexico at this time, *unless the district or charter school agrees to admit the student and not count them for funding. This is a local-level decision.* (See state statute at Subsection O (3)(a) of 22-8-2 NMSA 1978.)

Honors and Advanced Placement (AP) Classes

Honors classes are general education classes with more complex content covered at a more rapid pace and in greater depth. AP courses are classes that offer college-level content and can offer opportunities to earn college credit. While these classes are not specifically intended for students who are gifted, they offer a level of challenge that can fit the academic needs of some, but not all, students who are gifted. AP courses offer many benefits for academically talented learners. These benefits include:

- acquisition of college credit
- clearly stated, high-level expectations
- development of critical thinking skills
- emphasis on major ideas and advanced concepts
- learning at an accelerated pace
- learning the structure and tools of a discipline (VanTassel-Baska, 2001)

Advanced Placement: <https://ap.collegeboard.org/>

Individual Options

Internships, apprenticeships and mentorships expose students to advanced training and experiences in a career, interest, talent, or content area not ordinarily offered in the general school setting. These experiences can lead to a greater likelihood of students completing a degree in their areas of interest (Subotnik, Tai, Almarode, & Crowe, 2013).

Individual and Small Group Counseling

Affective education and counseling are both concerned with personal development and emotions. Affective activities are often led by the teacher or another adult without special training and consist of planned exercises and activities that help students clarify their own feelings and beliefs as related to the curriculum. Counseling, directed by an individual trained in counseling, focuses on individuals. It involves problem solving, making choices, conflict resolution, and deeper understanding of self and is unrelated to the curriculum.

Magnet or Special Schools

Some large cities design specialized schools, based on talents and needs of students, which offer specialized instruction to less affluent students similar to that offered in private schools. These schools are a beneficial option for districts if they are “committed to the ideal of addressing gifted student needs as the basis for program planning and development” (Klimis & VanTassel-Baska, 2013). Furthermore, specialized schools provide opportunities for students to learn without limitations in environments that can include service learning, research, mentoring, and global experiences (Roberts & Alderdice, 2015).

Pull-Out Groups within and across Grades by Targeted Ability and Interest Areas

Students are pulled out of the general education classroom and a gifted education teacher/facilitator implements instruction and special studies based on ability and interests of groups of students (Vaughn, Feldhusen, & Asher, 1991). Pull-out groups have been found to lead to

- increased motivation and positive social/emotional experiences (Dimitriadis, 2012);
- positive effects in critical thinking, creativity, and achievement (Vaughn, Feldhusen, & Asher, 1991); and
- increased levels of challenge, enjoyment, and engagement (Yang, Gentry, & Choi, 2012).

Self-Designed Courses or Guided Study

Self-designed courses and guided study can be an excellent way to vary the depth at which students learn. To avoid misuse, direction and supervision, along with a study plan, is needed to insure student success. A format is developed and structure is established that will indicate when the study is completed.

Special Enrichment Options

May be available in or outside of school—Saturday and summer programs, Great Books, Young Writers, Future Problem Solving, history day, academic decathlon, Thinking Cap Quiz Bowl, Odyssey of the Mind, Continental Math League, Math Counts, Stock Market Simulation Game, Knowledge Master Open, and Science Olympiad.

Challenges to Certain Delivery Models

Maximum or Extensive Services

When students are identified with a generalized need for advanced material in most, if not all, academic areas, they will best be served through a service delivery model that allows for services for more than half a day. It is possible that a student may need extensive services in one or two academic areas and not in others. Once again, it is important for each student's needs to be considered individually and to provide services to meet those needs.

Pull-Out Services

The majority of gifted services in New Mexico have been offered primarily through a pull-out model. Many gifted services have relied on providing enrichment not necessarily related to the general education curriculum. This may be the most appropriate service model to meet the student's current needs, but there may be inherent problems in looking at this as the primary model. Those difficulties may include the following:

- Failure to meet individualized needs
- Fragmentation of instruction
- Isolation of special program instruction
- Lack of connection to the general curriculum
- Problem of student missing other classroom activities

Differentiated Instruction

Best practice for gifted education is for students who are gifted to be with similar ability peers as much as possible during the school day (Rogers, 2006). However, if small numbers of students who are gifted or lack of a qualified teacher prevents the implementation of best practice (i.e., the students' needs cannot be met outside of the general education setting), then differentiation can be utilized. However, differentiation should only be used if no best practice options are available.

Greater emphasis is being placed on facilitating differentiation in the regular education classroom for students who are gifted (Tomlinson, 1999). Differentiation acknowledges the need students who are gifted have to be offered challenge in their learning curriculum each day and every class period. Another important factor recognizes that through differentiation the regular classroom teacher shares in the responsibility of meeting the educational needs of students who are gifted.

Service Delivery: How Teachers Can Provide Differentiation for Students who are Gifted

Instructional practices for students who are gifted indicate that a greater emphasis needs to be placed on involvement with the general education curriculum, while using an increased emphasis on collaborative teaching models. Students who are gifted should not

necessarily be segregated and separate from the general education. These gifted students should receive instruction in the skills learned in the general education curriculum. They should be periodically assessed for core curriculum knowledge and skill levels. Gifted students can be excelled simultaneously through appropriate methods such as the following four methods.

Compacting the Curriculum

The most important needs of students who are gifted are to have regular opportunities to demonstrate what they already know, to receive full credit for content they have already mastered, and to spend their own learning time on challenging activities that accelerate and enrich the regular curriculum (Reis, Burns & Renzulli, 1992). Compacting the curriculum can answer these needs.

Designing Alternative Learning Experiences

The teacher provides alternative learning opportunities through differentiation of the content, process, products, learning environment, and assessment.

Allowing for Differentiated Pacing

For a curriculum that cannot be assessed beforehand, students who are gifted should be allowed to work at their own pace to learn the required concepts and spend more time on developing an expertise on a related topic of their choice.

Agreeing on Expectations

Teachers and students work together to set up standards for evaluating productivity, behavior and differentiated products. Then they agree on the standards in writing (learning contract).

How Administrators Can Facilitate Differentiation for Students who are Gifted

- Acknowledge the needs of students who are gifted
- Because students who are gifted are just as far removed from average as students with cognitive disabilities, instructional differentiation is highly defensible and equitable.
- Facilitate gifted education training for staff
- Strategies that teachers learn for the benefit of their students who are gifted are applicable to other bright students and tend to raise the learning curve for all.
- Investigate Cluster Grouping
- Cluster grouping is the practice of purposely placing 5 to 10 students who are gifted together in an otherwise heterogeneous class. Their teacher needs to have training in how to differentiate the curriculum for students who demonstrate mastery or who can learn at a quicker rate. Refer to the Cluster Grouping topic in this chapter of the manual for important, additional information.

Communicate Expectations

Make clear that all students should be able to learn something new and challenging every day. Students who are gifted need to demonstrate that they are making continuous progress in their own learning (National Association for Gifted Children).

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Chapter 7

Curriculum and Instruction



The whole art of teaching is only the art of awakening the natural curiosity of young minds for the purpose of satisfying it afterwards; and curiosity itself can be vivid and wholesome only in proportion as the mind is contented and happy.

—Anatole France

Curriculum and Instruction

Introduction

Students receiving gifted services must be provided a differentiated education from that which is regularly provided by New Mexico school districts and charter schools. It is important that gifted education teachers be aware of the following curricular issues and resources.

- Academic needs of individual students who are gifted within and beyond the district's or charter school's general curriculum
- District/charter school/community philosophy toward gifted education
- District gifted curriculum guides
- Methods and materials specific to gifted students
- Scope and sequence of their district's general curriculum—standards/benchmarks of district
- State standards
- Techniques for differentiation of curriculum

National Association for Gifted Children (NAGC) Standard for Curriculum Planning and Instruction

Description

Educators apply the theory and research-based models of curriculum and instruction related to students with gifts and talents, and respond to their needs by planning, selecting, adapting, and creating culturally-relevant curriculum, and by using repertoire of evidence-based instructional strategies to ensure specific student outcomes.

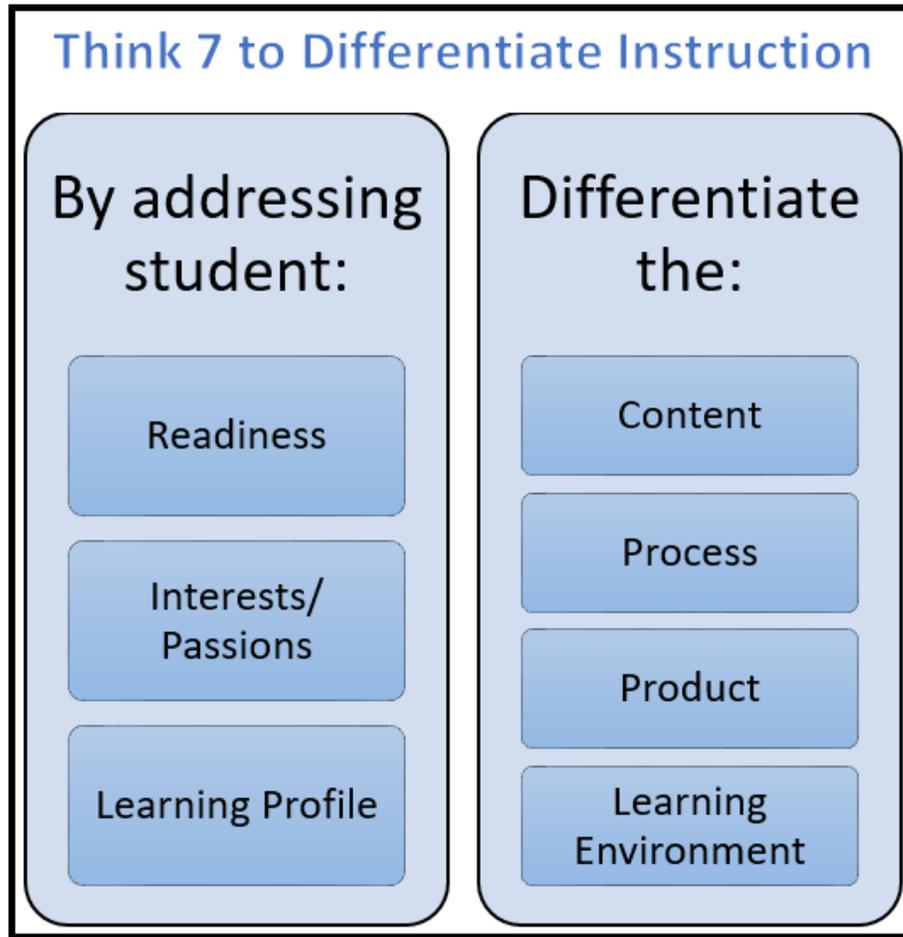
Guiding Questions

- In using the local, state, and national standards as a foundation for curriculum and instructional plans, what strategies are in place to select, adapt, and create differentiated, challenging, culturally appropriate curricula utilizing a carefully balanced assessment system to identify and meet the needs of students with a variety of gifts and talents?
- Do the instructional strategies delivered encompass creative thinking, critical thinking, problem solving and inquiry-based models?
- Does the curriculum used integrate career exploration experiences and allow for deep exploration of cultures, languages, and other diversity-related issues?

Source: National Association for Gifted Children (NAGC), 2011

Differentiation of Curriculum

Curriculum differentiation is a broad term referring to the need to tailor teaching environments and practices to create appropriately different learning experiences for different students. The chart below outlines differentiation in these broad terms.



Typical Programming Procedures

Farmer (1996) suggests that typical programming procedures in the case of students who are gifted and talented students include the following:

- Deleting already mastered material from existing curriculum
- Adding new content, process, or product expectation to existing curriculum
- Extending existing curriculum to provide enrichment activities
- Providing course work for able students at an earlier age than usual
- Writing new units or courses that meet the needs of students who are gifted

Appropriately Differentiated Curriculum

Developing curriculum that is sufficiently rigorous, challenging, and coherent for students who are gifted is a challenging task. Nevertheless, appropriately differentiated curriculum

produces well-educated, knowledgeable students who have mastered a substantial body of knowledge, and can think clearly and critically about that knowledge.

Based on the work of Maker's model of differentiated curriculum, Farmer (1996) and Tomlinson (2001) suggest that curriculum needs to be differentiated in terms of these:

- Content
- Process
- Product
- Learning environment

Based on the work of Tomlinson and other researchers, DeKalb County School System (2007) recommends that gifted education teachers differentiate:

- content including ideas, concepts, information, and facts
- process including the way new material is presented, activities in which students engage, the questions that are asked, teaching methods, and thinking skills or processes developed by the student
- products
- learning environment including adaptations in the setting in which learning occurs, both physical setting and psychological school/classroom climate for students who are gifted using the following best practices (Maker & Schiever, 2005):

Six Means of Differentiating Content

Abstractness

Major focus of discussions, presentations, reading, and lectures should be on abstract themes and theories—things that have a high potential for transfer. Facts and other concrete information should be the basis for the study of abstract issues and problems.

Complexity

Curriculum needs to be organized around broad-based, abstract themes. Use a multidisciplinary approach—exploration of themes and topics across the disciplines. Ideas that have a number of concepts, approaches, parts, interpretations, and solutions should be available for student exploration.

Operation for learning value and economy

Design experiences to allow students to receive as much value for the time spent as possible. Organize activities to facilitate transfer of learning, memory and understanding of abstract concepts and generalizations. This comes from organizing instruction around key concepts or abstract ideas to be learned rather than arranging it in some other fashion.

Study of methods

Students should learn methods of inquiry, investigation, and research used by scholars in different disciplines. They could practice these methods. Students should be given opportunities to focus on metacognitive thought and to explore how they think and learn.

Study of people

In order to learn how to deal with their own talents and possible successes, students who are gifted could study creative and productive individuals. Students might analyze the problems faced by eminent people and explore how they handled their problems. Students could examine personal traits, career and professional characteristics, and their social interactions.

Variety

Students who are gifted learners should be taught ideas and content areas not taught in regular curriculum. This is often called the “null curriculum” and includes subjects such as anthropology, economics, archaeology, topology, sociology, psychology. Provide opportunities for students to select areas of study (e.g., independent studies or contracts).

Twelve Means of Differentiating Process

Discovery

Create situations that allow students to use inductive processes to discover patterns, ideas, and underlying principles. Allow students to bring their own organizational structure to problems and situations. Encourage independent learning; the surest way to make it hard for a student is to make it easy for them. Provide many opportunities for investigation of problems, situations in which there is no right answer.

Enabling skills

Include learning of specialized skills that are tools of the trade of specific areas of human endeavor. The learning and usage of self-directed, independent learning skills is important.

Evaluation

Allow for self-evaluation. Evaluate through authentic products. Provide a wide variety of types of evaluation. Allow for evaluation of thinking and the problem solving process.

Evidence of reasoning

Ask students to express their conclusions as well as the reasoning that led them to their conclusions. This allows students to focus on how they think and reason and to evaluate their thinking processes. Listening to reasoning and evidence also allows teachers to assess levels of thinking.

Freedom of choice

Give students freedom to choose both learning experiences and topics. Offer students the opportunity to choose strategies and processes which best fit their learning styles and intelligences.

Group interaction

Provide simulations and other structured and unstructured opportunities for students to work with other students who are gifted. Vary group organization to include pairs, small groups, and large groups. Include opportunities for peer evaluation.

Higher levels of thinking

Students are asked to think on the higher levels of Bloom's Taxonomy, on the levels identified by Frank Williams, and/or any other higher-level skills. Students should be involved in creative thinking, critical thinking, and problem solving. These skills should be actively taught.

Open-endedness

Divergent, not convergent, questions allow students to explore many options and allow students to see that there are many situations in life when no predetermined right answer exists. Provocative questions stimulate further thinking and investigation. Openness stimulates thought, permits and encourages divergent thinking, encourages responses from more than one student, and aids in development of interaction in which learning, not the teacher, is the focus.

Pacing

Present new material at a rate/pace that accommodates giftedness. Do not expect students who are gifted to wait for others to grasp a concept before they can move on to something they do not know. Compacting, contracts, independent studies are some things that can be used to adjust pacing. It is very important to maintain motivation and interest and to enhance students' willingness to accept a challenge. This does **not** mean hurrying through a lesson or removing wait time from questioning.

Self-Understanding

Provide activities that develop self-understanding, recognizing, and using one's abilities, becoming self-directed, appreciating likenesses and differences between oneself and others.

Variety

The teacher should use various methods to maintain the interest and to accommodate the different learning styles of the students.

Other

Use strategies such as learning logs, journals, graphic organizers, creative problem solving, think-pair-share, synectics, mind mapping, two-sided debates (listing pluses, minuses, and interesting points about a topic under consideration), mentorships or apprenticeships, flexible grouping, learning centers, varying questions, role-playing, model making, labs, tiered assignments, compacting, contracts, and independent studies.

Seven Means of Differentiating Products

Addressed to real audiences

Provide opportunities for students to present their products to the scientific community, city council, government area, classmates, another class, or a group of partners in education.

Appropriate evaluation

Have the end products evaluated by the audiences to which they were intended, including peers. Students should do extensive self-evaluations of their own products during the project and after the project. Clearly lay out criteria for success in content and production. Each student will have a different criterion for success. Allow for student evaluation on the basis of agreed-upon criteria for content and production. Set clear standards of high expectations for student products.

Results from real problems

Address problems that are meaningful to the learner. Address problems that might be encountered by professionals in a field.

Self-selected format

Allow students to decide which format they want to use. Give them a menu of choices. Allow them to suggest their own new techniques, materials, and forms.

Transformation

Products should represent transformation of existing information or data rather than mere summaries of others' conclusions. Provide opportunities for original research, original artwork, and collection of raw data. Force use of higher-level thinking skills.

Variety

Encourage students to learn about and use a variety of products and to carefully consider the most appropriate representation of their content to a proposed audience. Allow for students to choose products that fit their learning and intelligence styles. Allow students to learn to use different media.

Other

Help students see the need for both creative and critical thinking; help them build a passion for the ideas being pursued. Require a synthesis of multiple sources of information in developing products. Give clear and ample directions as a way of ensuring quality, but leave room for student choice in the context of clear directions. Ensure the learning of required production skills, not just content. Communicate with parents regarding timelines, assessment, rationale for product, and how they can help. Consider allowing students to work on products in class when they have compacted out of an assignment or when they do not need practice for homework. If possible, allow an advanced learner to work with a mentor.

Eight Means of Differentiating the Learning Environment

Acceptance

Attempt to understand the students' ideas and points of view. Listen to ideas, request clarification, elaboration and extensions of ideas before approving or challenging them. Make judgments at appropriate times—not when creative production should be occurring. Make evaluations that assess strengths and limitations rather than judgments that imply rightness or wrongness.

Complexity

Arrange a physical environment that includes a variety of materials. Have sophisticated and varied tools, references, and books, a representation of varied cultures and intelligences, a variety of databases, and electronic resources. Include challenging tasks, complex ideas, and sophisticated methods.

Flexibility

Allow for flexibility in scheduling, requirements to be met, and criteria for evaluation. Give extended time for complex projects if necessary. Be prepared to take advantage of teachable moments. Allow for unstructured time. Allow for student autonomy whenever possible.

High mobility

Allow movement in and out of the classroom. Provide access to different learning environments, materials, and equipment.

Independence

Tolerate and encourage students to take initiative for their own learning. Students should solve problems such as classroom management or discipline, and make their own decisions instead of depending on the teacher.

Learner centered

Focus on the students' interests and ideas rather than those of the teacher. Emphasize student discussions rather than teacher talk. Patterns of interaction have the student as the central focus.

Openness

Be sure the physical environment is open to new people, materials, and things. The psychological environment must also be open to new ideas, diverse values, exploratory discussions, and freedom to change directions and meet new situations.

Variety in groupings

Groupings should approximate real-life situations. Allow the students to make choices about how groups are set up. Be sure the types of tasks and purposes of learning experiences are varied.

Curricular and Curriculum Writing Models for Students who are Gifted

Students who are gifted exhibit different behaviors and characteristics and, as a result, have different learning needs (Georgia Department of Education, 2006). Therefore, a single curriculum model to meet the needs of students who are gifted is inappropriate. Different models are needed to meet the different individual student needs. A variety of models are provided below with most depicted in the table (DIT), and some not in the table (NIT) that concludes this section.

Acceleration

Advanced Placement (AP), International Baccalaureate (IB), and Dual Enrollment—depicted in table (DIT). AP, IB, and dual enrollment are all acceptable sources of acceleration for students at the high school level, and a model for acceleration at other levels (VanTassel-Baska, 2005). While they should not be mistaken for a comprehensive program offering (Gallagher, 2009), especially for traditionally underserved populations, many students perceive that they provide access to greater levels of challenge and more effective learning environments. To increase their effectiveness with underserved populations, AP and IB teachers may require further professional development, and the courses should be differentiated to add depth and focus on challenge rather than other outcomes (Hertberg-Davis & Callahan, 2008).

Autonomous Learner Model (ALM)—DIT

Developed specifically to meet the diversified cognitive, emotional, and social needs of learners, the ALM for gifted and talented students is used at all grade levels for the gifted, as well as learners in the regular classroom. George Betts and Jolene Kercher (Betts and Kercher, 1981, revised 1996) developed this model that places emphasis on meeting the unique needs of learners through activities in five major dimensions of the model: 1) orientation, 2) individual development, 3) enrichment, 4) seminars, and 5) in-depth study. This model is focused on students taking control of their own learning and the skills needed to do so. Additional information about ALM is available at: <https://study.com/academy/lesson/betts-autonomous-learner-model.html>

Calvin Taylor Model of Creative Thinking and Critical Thinking (MCTCT)—DIT

The Calvin Taylor MCTCT describes five talent areas: 1) productive thinking, 2) communication, 3) planning, 4) decision-making, and 5) forecasting. Both the critical and creative elements of thinking are incorporated in this model, which is best known as Talents Unlimited (a program of the National Diffusion Network of the US Department of Education). This thinking skills model describes the essential elements of thinking. Additional information about the Calvin Taylor MCTCT is available at http://inventors.about.com/od/creativity/a/Calvin_Taylor.htm

CLEAR: Challenge Leading to Engagement, Achievement, and Results—DIT.

CLEAR (Oh et al., 2012) units incorporate elements of Tomlinson's Differentiated Instruction (2001), Renzulli and Reis' (1985) Schoolwide Enrichment Model (SEM), and

Kaplan's Depth and Complexity Model (2012) in an integrated design. The model has been used to develop several language arts units for gifted learners. Implementation of the CLEAR units was shown to have significant effects on content learning (Callahan et al. 2015). Additional CLEAR information: <https://files.eric.ed.gov/fulltext/ED535658.pdf> and <https://www.prufrock.com/Research-and-Rhetoric-Language-Arts-Units-for-Gifted-Students-in-Grade-5-P2618.aspx>

Destination Imagination (DI)—DIT

DI is a competition that requires students to leverage creative problem-solving strategies, collaboration, research, and communication as they build independence. DI provides a curriculum that encourages the success of students. While students do not have to be gifted to participate in DI, it is used as part of many gifted programs. A program evaluation study found higher problem solving, creativity, and critical thinking was higher for DI participants than non-participants (Callahan, Hertberg-Davis & Missett, 2011). For additional information about Future Problem Solving and Scenario Writing, visit <https://www.destinationimagination.org> and <http://imaginm.org>

DT→PI: Diagnostic Testing and Prescriptive Instruction—DIT

DT→PI is a model of acceleration utilized successfully in the Study of Mathematically Precocious Youth (Lupkowski, Assouline & Stanley, 1990). Also called the Stanley or SMPY model, it has strong evidence of usefulness as a curriculum model across multiple indicators (VanTassel Baska & Brown, 2007). It involves careful placement, mastery testing, and instruction only on previously unmastered content. Information about the DT→PI model can be found at: <http://www.davidsongifted.org/Search-Database/entry/A10248>

Edward DeBono CoRT Thinking Programme

The Edward DeBono Cognitive Edward DeBono Cognitive Research Trust (CoRT) Thinking Programme includes generative and creative thinking, as well as operational and constructive thinking. It represents one of the most comprehensive approaches to the teaching of thinking. The CoRT programme is divided into 6 parts of 10 lessons each. Additional information about the Edward de Bono CoRT Thinking programme is available [here](#) or at <http://www.debonogroup.com>

Future Problem Solving—DIT

FPS provides students with an opportunity to utilize many of their skills to creatively generate futuristic problems and potential solutions. The process teaches a six-step problem solving method. The FPS Program International conducts competitions utilizing the method, as well as a Scenario Writing competition that leverages the skills of creative writers. Research has shown that FPS has beneficial results for students who are gifted, including a higher level of interest in global issues and more positive feelings regarding their control of the future (Tallent-Runnels & Yarbrough, 1992). For additional information about FPS and for Scenario Writing visit: <http://www.fpspi.org/what-is-fpspi/> and <http://www.fpspi.org/scenario-writing/>

The Integrated Curriculum Model (ICM)—DIT

The ICM for Gifted Learners (VanTassel-Baska, 1986) has three dimensions: 1) advanced content, 2) higher-level processes and product development, and 3) interdisciplinary concepts, issues, and themes. Through these three dimensions, the ICM responds to characteristics of students who are gifted—precocity, intensity, and complexity. A longitudinal study found that, when utilized for language arts and science, this curricular model enhanced learning significantly for third-, fourth-, and fifth-grade students who are gifted (Feng, VanTassel-Baska, Quek, Bai, & O’Neill, 2005). The model has also been shown to positively affect social studies content learning (Little, Feng, VanTassel-Baska, Rogers & Avery, 2007). The model is effective when used in Title I schools (VanTassel-Baska, Bracken, Feng, & Brown, 2009). The ICM was developed at the College of William and Mary’s Center for Gifted Education, which emphasizes the development of exemplary curriculum frameworks and units of study for gifted learners. The ICM has also been used to create a series of curriculum units focused on the needs of disadvantaged and underserved gifted students. They have been shown to be effective in boosting content knowledge and thinking skills in students with a wide range of prior opportunities to learn (Van-Tassel Baska, 2018).

Additional information about the ICM for Gifted Learners is available at:

<https://education.wm.edu/centers/cfge/curriculum/index.php>

Junior Great Books—DIT

(Great Books Foundation, 1992) presents a curriculum for high-level questioning activities, such as interpretation and evaluation using a shared inquiry approach. Wood (2008) specifically recommended it as a discussion curriculum for gifted students. The curriculum materials, and some supporting documentation, can be found at the following web link:

<https://www.greatbooks.org>

Man: A Course of Study—DIT

MACOS is a social studies curriculum for elementary school students developed by Bruner (1970). While not specifically developed for gifted learners (VanTassel-Baska & Brown, 2009), it is a high-concept, inquiry-based curriculum expecting students to act as social scientists; it has been employed successfully as part of comprehensive gifted programs (Baska, 1983). Find the linked curriculum materials and some supporting documentation at: <http://www.macosonline.org/course/> and <https://eric.ed.gov/?id=ED178390>

Michael Clay Thompson (MCT) Language Curriculum—DIT

The MCT Language Curriculum is an integrated set of language arts curricula with application for gifted learners. The curriculum contains materials that focus on vocabulary, grammar, literature, poetics, and writing and can be utilized from grades 3-high school. The Word Within the Word curriculum has been found more effective than other vocabulary teaching models for both gifted and general education students (Gallagher, 2017).

Multiple Intelligences—DIT

Gardner (2011) proposed eight different intelligences: 1) linguistic, 2) logical mathematical, 3) spatial, 4) bodily-kinesthetic, 5) musical, 6) interpersonal, 7) intrapersonal, and 8) naturalist. While most schools focus their attention on linguistic and logical-mathematical, it is important to implement strategies that focus on all of the different intelligences. Additional information about multiple intelligences is available [here](#) and at the following web link: http://www.thomasarmstrong.com/multiple_intelligences.htm

Operation Houndstooth—DIT

This model studies how certain nonacademic factors contribute to the development of giftedness (Renzulli, Koehler, & Fogarty, 2006). These six factors are: 1) a sense of vision/a sense of destiny, 2) physical/mental energy, 3) romance with a topic or discipline, 4) courage, 5) optimism, and 6) sensitivity to human concerns. This model encourages students to utilize their talents in unselfish ways that will benefit society (Renzulli, Koehler, & Fogarty, 2006). Additional information about Operation Houndstooth is available [here](#) and at the following link: https://gifted.uconn.edu/wp-content/uploads/sites/961/2015/09/Social_Capital_in_Todays_Schools.pdf

Parallel Curriculum Model—DIT

This model is a set of four interrelated designs for the purpose of planning: 1) core, 2) connections, 3) practice, and 4) identity. These designs are used to create or revise existing curriculum units, lessons, or tasks and can be used individually or in combination with each other. Each parallel offers a unique approach for teaching, learning, and organizing content.

- 1) Core: The core curriculum, based upon the state and national standards, is the foundation upon which any or all of the other three parallels should be combined.
- 2) Connections: Students discover the many ways in which various disciplines are interconnected.
- 3) Practice: Students utilize the knowledge of a discipline from the perspective of a professional in that field.
- 4) Identity: Students make connections between their unique identities and the discipline being explored (VanTassel-Baska & Brown, 2007).

These parallels are used to create or revise existing curriculum units, lessons, or tasks and can be used individually or in combination with each other. Each parallel offers a unique approach for teaching, learning, and organizing content. Additional information about the Parallel Curriculum Model is available at the following link: <https://www.bing.com/images/search?q=parallel+curriculum+model+for+gifted&qpvt=parallel+curriculum+model+for+gifted&FORM=IGRE>

Problem-Based Learning—DIT

This is an approach to learning that focuses on the process of solving a problem and acquiring knowledge. When students are active in creating the problem, then it is considered an inquiry-based approach. Research has shown that, when utilized properly,

problem-based learning causes no loss is content acquisition and is student centered, which can lead to higher levels of student engagement (Gallagher & Stepien, 1996; Callahan, Moon, Oh, Azano, Hailey, 2015). Additional information about problem-based learning is available at this link: <http://www.udel.edu/pbl/>

Project-Based Learning—DIT

This is an approach to learning that focuses on developing a product or creation. The project may be student-centered, problem-based, or inquiry-based. Additional information about project-based learning is available at these links: <http://www.pbl-online.org/> and <http://www.projectapproach.org/>

Project CIVIS—NIT

CIVIS is a collaboration to bring enrichment and talent development practices to middle school social studies resulted in three Project CIVIS curriculum units. They have been shown to significantly increase retention of content knowledge and have application for underachieving students (Stoddard, Tieso & Robbins, 2015). Additional information about project-based learning is available at this link: <https://education.wm.edu/centers/civis/index.php>

Project M3 (Mentoring Mathematical Minds)—NIT

Project M3 is a curricular program focused on developing the skills of elementary students who are mathematically talented. Research conducted utilizing this program resulted in significantly large gains in mathematical knowledge and skills, including algebra, geometry, data analysis, and probability (Gavin et al., 2007). Additional information about Project M3 can be found at the following links: <https://k12.kendallhunt.com/program/project-m3-mentoring-mathematical-minds-grades-3-6>
<https://nrcqt.uconn.edu/wp-content/uploads/sites/953/2015/09/rm13242.pdf>

Purdue Three-Stage Model—NIT

Feldhusen constructed a multistage enrichment model, integrating enrichment and acceleration, general and gifted education program components, across elementary and secondary education. The overarching theme of the model was movement from simple to independent thinking (VanTassel Baska & Brown, 2007). Additional information about the Purdue model can be found at: https://www.researchgate.net/publication/287205866_The_Purdue_Three-Stage_Model

Renzulli's Three-Ring Conception of Giftedness—DIT

This model consists of three clusters: 1) above average ability, 2) task commitment, and 3) creativity. Research has shown that it is the interaction of the three clusters that is necessary for creative-productive accomplishment (Renzulli, 2016). This three-ring conception is core to the enrichment triad (Reis & Renzulli, 2009) (see below) and does not address the affective needs of students who are gifted (Renzulli, 1999). Additional information about Renzulli's Three-Ring Conception of Giftedness is available at the

following link:

https://www.researchgate.net/publication/237668711_The_ThreeRing_Conception_of_Giftedness_A_Developmental_Model_For_Promoting_Creative_Productivity?enrichId=rgreq-5658c3ea7940eae1e5614457cec747b0-XXX&enrichSource=Y292ZXJQYWdlOzIzNzY2ODcxMTtBUzo1MTQ2Njc3OTEwOTc4NTZAMTQ5OTcxNzc3MTQxMA%3D%3D&el=1_x_2&esc=publicationCoverPdf

Renzulli’s Enrichment Triad Model—DIT

This model identifies three types of enrichment activities to motivate students, develop higher level thinking, and enable students to become real-world investigators and problem solvers. Reis & Renzulli (2009) explain that the model is intended to foster creative productivity utilizing three types of enrichment:

Type I—General exploratory activities

Type I enrichment provides students with exposure to many areas of study that are not addressed in the general curriculum. Examples include, but are not limited to exposure to occupations, hobbies, places, and events. This enrichment is focused on the hope that the interest generated by exposure to new topics will lead to students’ motivation to continue to Type II and III enrichment.

Type II—Group training activities

Type II enrichment focuses on teaching students (usually in groups) to expand their thinking and feeling skills. This enrichment includes but is not limited to the development of critical thinking, affective processes, use of advanced-level reference material, and communication skills (written, verbal, and visual).

Type III—Individual & small group investigations of real problems

Type III enrichment focuses on students developing their skills as an autonomous learner. These skills include, but are not limited to the following:

- self-selection of a problem or area of study
- study of advanced content and processes in the selected area of study
- generation of authentic products for a particular audience
- decision making, time-management, and self-evaluation
- task commitment and self-confidence

Additional information about Renzulli’s Enrichment Triad Model is available at the following links: https://nrcqt.uconn.edu/underachievement_study/curriculum-compacting/cc_section2/
<https://prezi.com/aimqel3hbbvu/renzullis-schoolwide-enrichment-triad-model-sem/>
<https://renzullilearning.com/josephrenzulli/>

Schoolwide Enrichment Model-Reading (SEM-R)—NIT

The SEM-R (Reis et al., 2005) is an application of the Schoolwide Enrichment Model for reading, in which students are exposed to high quality literature and then increasingly read and discuss high-level questions around independently selected readings. The project was found to have impacts on both motivation and achievement in reading. Additional information about SEM-R can be found at:

<https://nrcqt.uconn.edu/wp-content/uploads/sites/953/2015/04/rm10240.pdf>
<https://gifted.uconn.edu/semr-resources/>

Structure of Intellect (SOI)—DIT

Developed by J.P. Guilford in 1967, the SOI has two components that contribute to gifted education. First, the SOI tests can be an effective means of identifying students as gifted. Second, the SOI training modules offer qualitatively different instructional content, not just accelerated academics. Students' gifted abilities can be enhanced through the SOI training modules and students can develop abilities not yet at the gifted level. Additional information about the SOI is at <http://www.soisystems.com/>

Triarchic Instruction and Assessment (TIA)—NIT

The TIA model (Sternberg & Grigorenko, 2002) is based on the theory of successful intelligence as a basis for gifted education (Gifted Child Quarterly, 46(4), 265–277), also sometimes called Teaching for Successful Intelligence (Sternberg & Grigorenko, 2007), allows multiple access points for students to gain access to high-level curriculum based on their learning profiles. The curriculum units developed using the model had positive effects on content learning (Sternberg, Torff & Grigorenko, 1998). Additional information about TIA can be found at: <https://nrcqt.uconn.edu/newsletters/spring002/>

William and Mary Integrated Curriculum Model (ICM)—DIT

The William and Mary ICM for Gifted Learners has three dimensions: 1) advanced content, 2) higher level processes and 3) product development, and interdisciplinary concepts, issues and themes. Through these three dimensions the ICM responds to characteristics of students who are gifted—precocity, intensity, and complexity. A longitudinal study found that when utilized for language arts and science, this curricular model enhanced learning significantly for third, fourth, and fifth grade students who are gifted (Feng, VanTassel-Baska, Quek, Bai, & O'Neill, 2005). The ICM was developed at the College of William and Mary's Center for Gifted Education, which emphasizes the development of exemplary curriculum frameworks and units of study for gifted learners. Additional information about the ICM for Gifted Learners is available at this link: <https://education.wm.edu/centers/cfge/curriculum/index.php>

The table below shows how the different models apply to different areas of giftedness.

TABLE # 1 RELATIONSHIP OF CURRICULAR AND CURRICULUM WRITING MODELS TO AREAS OF GIFTEDNESS									
Curricular Models	Self Understanding	Inter-personal Skills	Thinking Skills	Creativity	Interest Development	Communication Skills	Skills of an Independent Learner	Advanced Knowledge	Future Studies
AP, IB & Dual-Enrollment			X			X	X	X	
ALM	X	X	X	X	X	X	X	X	X
Calvin Taylor MCTCT			X	X		X	X		X
CLEAR		X	X			X	X	X	
Destination Imagination	X	X	X	X	X	X	X		
DT→PI			X				X	X	
Edward DeBono Court	X		X	X	X				
Future Problem Solving	X	X	X	X	X	X	X	X	X
ICM			X	X		X	X	X	
Junior Great Books	X	X	X			X	X	X	
MACOS	X	X	X				X	X	
MCT		X	X	X		X	X	X	
Multiple Intelligences	X	X	X	X	X	X	X	X	X
Operation Houndstooth	X	X	X	X	X	X	X	X	X
Parallel Curriculum Model			X	X		X		X	
Problem-Based Learning		X	X	X		X	X	X	X
Project-Based Learning	X	X	X	X	X	X		X	X
Renzulli's 3-Ring		X	X	X	X	X	X	X	
Renzulli's Triad		X	X	X	X	X	X	X	
SOI			X	X		X			
William & Mary ICM			X	X		X	X	X	

Strategies Specific to Students who are Gifted

Teachers must use differentiated instruction and a variety of strategies to meet the diverse needs of students who are gifted and allow all students to learn at appropriately challenging levels. So, gifted education teachers will benefit from engaging in professional development, in which they learn to use evidence-based strategies and curriculum (VanTassel-Baska et al. 2008). According to Roberts and Inman (2007), strategies must address the students' interests and learning preferences in order to motivate them to

perform well. A variety of strategies are provided below with most depicted in the table (DIT), and some not in the table (NIT) that concludes this section.

4-Mat Cycle of Learning—NIT

Bernice McCarthy places individual learning behaviors and preferences into the following categories of learning styles: 1) innovative learners, 2) analytic learners, 3) common sense learners, and 4) dynamic Learners. Curriculum must address all of these styles of learning. This can be done through the integration of these styles into the 4-Mat Cycle of Learning. Additional information about the 4-Mat Cycle of Learning is available at the following link: <http://www.aboutlearning.com/>

Bloom’s Taxonomy—DIT

In 1956, Bloom identified six levels within the cognitive domain: 1) knowledge, 2) comprehension, 3) application, 4) analysis, 5) synthesis, and 6) evaluation. These levels range from simple recall or recognition of facts to increasingly more complex and abstract mental levels. Bloom’s Taxonomy is probably the most widely known and applied strategy in use today. Additional information about Bloom’s Taxonomy is available at these links: <http://www.nwlink.com/~donclark/hrd/bloom.html> and <http://www.davidsongifted.org/Search-Database/entry/A10292>

Creative Problem Solving (CPS)—DIT.

CPS is a process that allows gifted students to apply both creative and critical thinking to find solutions to problems. Additional information about creative problem-solving is available at the following links:

<http://www.creativeeducationfoundation.org/creative-problem-solving/>
<https://www.mindtools.com/pages/article/creative-problem-solving.html>

Critical Thinking—DIT

Critical thinking is actively and skillfully conceptualizing, applying, analyzing, synthesizing, and/or evaluating information obtained through observation, experience, reflection, reasoning, or communication, in order to guide thinking or action. Additional information about critical thinking is available at <http://www.criticalthinking.org/>

Cross-Impact Matrix—DIT

The cross impact matrix represents an effort to extend the forecasting techniques of the Delphi method (see next). In this approach, events are recorded on an orthogonal matrix. At each matrix intersection, a question is asked: “If the event in the row were to occur, how would it affect the probability of occurrence of the event in the column?” The judgments are entered into the matrix cells in an attempt to reveal the conditional probability of an event occurring, given the occurrence of another event. Additional information about the cross impact matrix is available at http://discoveryoursolutions.com/toolkit/cross_impact_matrix.html

Delphi Method—DIT

The Delphi Method focuses on reliable and creative exploration of ideas for the production of suitable information for decision making. It is based on the process of collecting knowledge from a group of experts by means of questionnaires interspersed with controlled opinion feedback. The Delphi Method represents a useful communication device among a group of experts to facilitate the formation of a group judgment. Additional information about the Delphi Method is available at <http://creatingminds.org/tools/delphi.html>

Futures Wheel—DIT

The Futures Wheel can be used to consider how specific developments or changes to a particular area may affect the future. Students look at an issue from three or more points of view to help them visualize how specifications may impact the future. Additional information about Futures Wheel is available at <http://www.mindtools.com/pages/article/futures-wheel.html>

Inquiry-Based Learning—DIT

This strategy is a process by which students generate questions from their interests, curiosities, perspectives, and experiences. When students generate their own questions, they are at the center of their own learning, which is intrinsically enjoyable. Inquiry-based learning is a cyclical process, where after the students generate their questions, they begin to explore and create hypotheses. These hypotheses lead to an investigation, which leads to the creation or construction of new knowledge based on the findings. Students discuss and reflect on the newly-acquired knowledge, which leads to more questions and further investigation. There are many on-line resources for this strategy, including <https://coppellgifted.org/2011/05/01/qt-best-practices-inquiry-based-learning/>

Krathwohl's Taxonomy of Affective Domain—DIT

Krathwohl's taxonomy is ordered according to the principals of internalization as follows: 1) receiving, 2) responding, 3) valuation, 4) organization, and 5) characterization by value or value set. Internalization refers to the process individuals use to pass information from general awareness to an internalized level. Individual behavior is determined based on the level within the taxonomy that new information or ideas have been internalized. Additional information about Krathwohl's Taxonomy of Affective Domain is available at the following link:

<https://sites.edu.ualberta.ca/staff/olenka.bilash/Best%20of%20Bilash/krathwol.html>

Moral Development and Education—DIT

Kohlberg, building on Piaget's work, identified six stages of moral reasoning and stated that the goal of moral education was to encourage students to develop to the next stage of moral reasoning. Gilligan (1982) suggested that Kohlberg's theories were biased against women. She offered two distinct moralities—the morality of justice and the morality of care. Moral development and education as a strategy emphasize efforts to foster empathy and care responses in students. Additional information about moral development and education are available at

<https://www.reference.com/world-view/gilligan-s-objection-kohlberg-e5ab1b7649bdba0e>

Multiple Intelligences—DIT

Gardner developed the theory of multiple intelligences in 1983. He proposed eight different intelligences: 1) linguistic, 2) logical mathematical, 3) spatial, 4) bodily-kinesthetic, 5) musical, 6) interpersonal, 7) intrapersonal, and 8) naturalist. While most schools focus their attention on the first two, linguistic and logical-mathematical, it is important to implement strategies that focus on all of the different intelligences. Additional information about multiple intelligences is available at <https://howardgardner.com/multiple-intelligences/>

Myers-Briggs Type Indicators (MBTI)—DIT

The MBTI is a personality inventory that determine the basic differences in the ways individuals prefer to use their perceptions and judgment. Type dynamics is an important part of understanding the MBTI® results and provides information for developing appropriate strategies for effectively working with students and meeting their individual needs. Additional information is available at

Scenario Writing—DIT

Scenario writing encourages students to develop futuristic ideas. The Future Problem Solving Program (FPSP) has a specific component for scenario writing, which requires students to write futuristic short stories at least 20 years in the future. Additional information about scenario writing is available at the following link:

<https://nrcgt.uconn.edu/newsletters/spring032/>

Synectics—DIT

This is an approach to creative thinking that produces relevant connections between what appears to be unrelated information. This strategy can help students develop creative responses to problem solving, retain new information, and assist in writing. Additional information about Synectics is available at the following link:

<http://www.writedesigonline.com/organizers/synectics.html>

Taba's Teaching Strategies—DIT

Hilda Taba believed that students had to organize information before they could make generalizations. Through concept development and concept attainment, Taba believed that students could be led toward making generalizations. She developed teaching strategies for concept development and concept attainment. Additional information about Hilda Taba and her teaching strategies are at

<http://www.csus.edu/indiv/m/mcvickerb/hildataba.htm>

Williams Cube—DIT

Frank Williams (1967) defines creativity in relation to four cognitive and four affective factors. The cognitive factors include: 1) fluency, 2) flexibility, 3) originality, and 4) elaboration. The affective factors include: (a) curiosity, (b) imagination, (c) complexity, and (d) risk-taking. These factors comprise the Williams Cube, which is used to generate ideas

openly and encourage students to explore ideas by listening to their inner voice. Additional information about the Williams Cube is available at

http://www.eric.ed.gov/ERICWebPortal/search/detailmini.jsp?_nfpb=true&_ERICExtSearch_SearchValue_0=EJ223850&ERICExtSearch_SearchType_0=no&accno=EJ223850

The table below shows how the different strategies apply to different areas of giftedness.

TABLE # 2 INSTRUCTIONAL STRATEGIES SPECIFIC TO AREAS OF GIFTEDNESS									
Instructional Strategies	Self Understanding	Inter-personal Skills	Thinking Skills	Creativity	Interest Development	Communication Skills	Skills of an Independent Learner	Advanced Knowledge	Future Studies
4-Mat Cycle of Learning	X	X			X	X	X		
Bloom's Taxonomy	X		X	X		X	X	X	
Creative Problem Solving		X	X	X		X	X		X
Critical Thinking			X			X	X	X	X
Cross-Impact Matrix			X			X		X	X
Delphi Method		X	X		X	X	X	X	X
Futures Wheel			X	X	X	X		X	X
Inquiry-Based Learning		X	X			X	X	X	X
Krathwohl's Taxonomy	X					X			
Moral Development and Education	X	X			X	X	X	X	X
Multiple Intelligences	X	X	X	X	X	X	X	X	X
Myers-Briggs Type Dynamics	X	X	X		X	X	X		
Scenario Writing	X		X	X	X	X	X	X	X
Synectics	X		X	X		X			X
Taba's Teaching Strategies			X			X		X	X
Williams Cube	X		X	X		X			

Scope and Sequence of District's General Curriculum

Districts have developed their own scope and sequence, which should be familiar to the teachers of the gifted and are aligned with state standards and benchmarks. Districts may choose to create a separate scope and sequence specifically for students who are gifted.

Academic Needs of Individual Students who are Gifted

Academic needs of individual students who are gifted are documented in their Individualized Education Program (IEP). Educational opportunities for subject and grade skipping must be available for gifted learners, but the IEP team determines if these options are appropriate for an individual student.

State Standards—Standards for Excellence

Rule at 6.29.1 to 6.29.14 NMAC

The state standards for each subject area are available on the New Mexico Public Education Department's website at <https://webnew.ped.state.nm.us/bureaus/special-education/laws-rules-guidance/> When writing IEP goals, it is permissible to use standards and benchmarks that are above grade level.

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Chapter 8

Administration and Management



The function of education is to teach one to think intensively and to think critically. Intelligence plus character—that is the goal of true education.

—Martin Luther King, Jr.

Administration and Management

Introduction

State law requires that appropriate services be provided to students who are gifted. District and charter school administrators are responsible for seeing that these services are implemented in compliance with statute and rule. The administrators' roles include, but are not limited to, the following:

- Supervising staff and conducting staff development, staff performance evaluation, and program evaluation
- Demonstrating vision, examining issues, and taking initiative
- Effectively managing resources including regular education funding, additional funding for students who are exceptional including gifted, curriculum adoption and materials acquisition, and professional development
- Participating in IEP meetings—an administrator is a required member of the IEP team

National Association for Gifted Children (NAGC) Standard for Professional Development

Description

All educators (administrators, teachers, counselors, and other instructional support staff) build their knowledge and skills using the NAGC/CEC Teacher Standards for Gifted and Talented Education and the National Staff Development Standards. They formally assess professional development needs related to the standards, develop and monitor plans, systematically engage in training to meet the identified needs, and demonstrate mastery of standard. They access resources to provide for release time, funding for continuing education, and substitute support. These practices are judged through the assessment of relevant student outcomes

Guiding Questions

- Are all teachers, counselors and instructional support staff, given sufficient time and funds to regularly participate in a variety of research-supported professional development options in order to increase their expertise in the pedagogy and practice of gifted and talented education and to familiarize themselves with the resources available to meet the academic and socio-emotional needs of their students?
- Is the professional development utilized aligned to the NAGC-CEC Teacher Preparation Standards in Gifted Education and in compliance with rules, policies, and standards of ethical practice?

Source: National Association for Gifted Children (NAGC), 2011.

Suggested Administrators' Responsibilities to Gifted Education

Acknowledge and advocate for the needs of students who are gifted

Because students who are gifted are just as far removed from average as students with learning problems, the differentiation that these students need is highly defensible and equitable.

Facilitate gifted education professional development for staff

Any strategies that teachers learn for the benefit of their advanced students are applicable to other students and tend to raise the learning curve for all.

Investigate cluster grouping

Cluster grouping is the practice of purposely placing 5 to 10 students who are gifted together in an otherwise heterogeneous class. Their teacher needs to have training in how to differentiate the curriculum for students who demonstrate mastery or who can learn at a quicker rate.

Participate on the Gifted Advisory Committee

Administration provides leadership and capacity-building to this group.

Communicate expectations

Make it a clear value and expectation that all students should be able to learn something new and challenging every day. Students who are gifted need to demonstrate that they are making continuous progress in their own learning.

Calculating Student/Staff Caseload Maximums for Teachers Serving More Than One Level of Service

For a summary of caseload maximum requirements in state rule at Subsection I of 6.29.1.9 NMAC, see pages 19–20. Then use the formulas below to calculate the maximums.

The caseload for a gifted education teacher should not exceed 1.0 full time equivalent (FTE). Caseload maximums are in place to ensure appropriate services are provided to gifted students. A service provider cannot be expected to provide appropriate services when these numbers are exceeded. FTE levels are calculated using the following criteria:

A Level

- Minimal services
- 10 percent of the school day/week
- Caseload cannot exceed 35:1
- Multiplier = 0.029

B Level

- Moderate services
- Less than 50 percent of the school day
- Caseload cannot exceed 24:1
- Multiplier = 0.042

C Level

- Extensive services
- 50 percent or more of the school day
- Caseload cannot exceed 15:1
- Multiplier = 0.067

D Level

- Maximum services
- Amount approaching full school day
- Caseload cannot exceed 8:1
- Multiplier = 0.125

To determine **caseload maximums**, multiply the number of students at that level by the associated multiplier. The FTE generated by this calculation must be 1.0 or less unless the district or charter school submits to the NM PED a caseload waiver request that is approved by the secretary of education.

Examples:

- 35 students at A Level (35×0.029) = 1.0 FTE
- 31 students at A Level (31×0.029) = 0.899 FTE
- 23 students at A Level (23×0.029) + 7 at B (7×0.042) = 0.961 FTE
- 8 students at D Level (8×0.125) = 1.0 FTE

Gifted Advisory Committees

State rules at Subsection G of 6.31.2.12 NMAC require that each school district offering a gifted education program must create one or more gifted advisory committees (GACs). Please see page 18 for the regulatory requirements. The GAC meets on a regular basis. One of its purposes is to review local operational plans for student identification, evaluation, placement, and service delivery. Therefore, the GAC must become familiar with state rules that govern special education and how those rules apply to gifted education. Please see Chapter 2 of this manual and this link: <http://www.nmcpr.state.nm.us/NMAC/parts/title06/06.031.0002.htm>

Program Evaluation

As part of the continuous improvement process, schools evaluate their programs on a regular basis. Evaluation of the gifted education program might include the following considerations:

- Establishment of quality gifted education services
- Ensuring appropriate resources for students, families, and educators
- The impact of providing services
- Sharing success with others
- Improving services as they evolve

Schools may also wish to use the NAGC Gifted Education Programming Standards and guiding questions to develop their self-assessment or evaluation. Because these standards are grounded in theory, research, and practice paradigms, they provide an important base for all efforts on behalf of gifted learners at all stages of development.

Go to <http://www.nagc.org/index.aspx?id=546>

Licensure Endorsement for Teaching Students who are Gifted

State rule at 6.64.18.9(A)-(C) NMAC (effective 1/29/2010). In order to consider best practice, all teachers who have contact with gifted students should receive specific gifted education training. A summary of the state rule is as follows:

Summary

Any current licensed teacher who applies for an endorsement in teaching gifted students prior to July 1, 2012, may be granted the endorsement by providing verification of five years of experience in teaching gifted students. For more information, use this link:

<http://164.64.110.134/parts/title06/06.064.0018.html>

- Any current licensed teacher who applies for an endorsement in teaching gifted students prior to July 1, 2012, may be granted the endorsement by providing evidence of having passed a state-approved licensure test in the teaching of gifted students authorized by the PED or any other state education agency.
- Any current licensed teacher who applies for an endorsement in teaching gifted students prior to July 1, 2012, may be granted the endorsement by providing evidence of having successfully completed 12 credit hours in the pedagogy and methodology of teaching gifted students at a regionally accredited college or university.
- After June 30, 2012, beginning teachers seeking an endorsement in teaching gifted students at level 1, New Mexico teaching license must satisfy all requirements of the license as provided in the PED's rule for that license, which includes 24

semester hours in the pedagogy and methodology of teaching gifted students from a regionally accredited college or university. See 6.64.18.8(A) NMAC.

- After June 30, 2012, teachers seeking to add an endorsement in teaching gifted students to an existing New Mexico teaching license of any level shall meet the requirements of Paragraphs (1)–(2) of Subsection B of 6.64.18.8(A) NMAC by passing a PED approved teacher licensure test or an accepted comparable licensure test(s) from another state in teaching gifted students; and successfully completing at least 12 credit hours in the pedagogy and methodology of teaching gifted students at a regionally accredited college or university. See 6.64.18.8(B)(1)(2) NMAC.
- State rule at 6.64.18.10 NMAC also establishes entry-level competencies that are based on what beginning teachers of students who are gifted must know and be able to do to provide effective gifted education programs in New Mexico schools. The competencies must be used by New Mexico institutions of higher education to establish preparatory programs for gifted education teachers.

Supplemental Information and Resources



Expecting all children the same age to learn from the same materials is like expecting all children the same age to wear the same size clothing.

—Madeline Hunter

Supplemental Information and Resources

Internet Resources

Council for Exceptional Children: <http://www.cec.sped.org>

Education Program for Gifted Youth: <http://epgy.stanford.edu/>

Friends of the Gifted & Talented: <http://www.gtworld.org>

Gifted Child Monthly: <https://www.davidsongifted.org/Search-Database/entry/R13681>

Gifted Homeschoolers Forum: <http://giftedhomeschoolers.org/>

Hoagies Gifted Education Page: <https://www.hoagiesgifted.org/>

Imagine—Opportunities for Talented Youth:

<http://cty.jhu.edu/imagine>

National Association for Gifted Children (NAGC): <http://www.nagc.org/>

Stanford Education Program for Gifted Youth (EPGY):

<http://epgy.stanford.edu/summer>

Summer Institute for the Gifted: <https://www.giftedstudy.org/>

Organizations and Resources

American Association for Gifted Children

AAGC is dedicated to the universal values of early education as we aim to contribute to knowledge and improve the welfare of teaching. This website is for students, teachers, and parents who want to help progress their children's education and give them the best possible start in life. <https://aagc.ssri.duke.edu/>

The Association for the Education of Gifted Underachieving (AEGUS)

AEGUS provides a forum for ideas and strategies aimed at helping gifted underachieving students reach their potential. <https://www.aegus1.com>

The Association for the Gifted (TAG)

TAG is a division of the Council for Exceptional Children (CEC) embraces and supports the needs of students with gifts and talents, focusing on multi-exceptional and other diverse learners, through advocacy, professional learning, and resources. <http://cectag.org/>

The Belin Blank Center

The center is based at the University of Iowa, supports research into acceleration, assessment of gifted children, and professional development of educators. <https://www2.education.uiowa.edu/belinblank/>

The Center for Bright Kids <https://www.centerforbrightkids.org>

Center for Talent Development at Northwestern University
<https://www.ctd.northwestern.edu>

Center for Talented Youth at Johns Hopkins University <https://cty.jhu.edu>

Council for Exceptional Children (CEC)

The CEC is a national advocacy group for students with special education needs. The CEC is a leading special education professional organization. <http://www.cec.sped.org>

The Davidson Institute

Davidson is devoted to supporting profoundly gifted young people and providing opportunities for them to develop their talents in positive ways to create value for themselves and others. Their database contains hundreds of research articles <https://www.davidsongifted.org/>

ERIC Clearinghouse

ERIC gathers and disseminates professional literature, gathers and disseminates professional literature, information, and resources on the education and development of individuals of all ages who have disabilities and/or who are gifted. The ERIC database of educational materials has more than 70,000 citations on disabilities or gifted issues. <https://eric.ed.gov/>

Gifted Development Center

The center is a leading counseling and assessment center for gifted children and support center for parents. <http://www.gifteddevelopment.com/>

Gifted Education Resource Institute

The institute is at Purdue University supports research into gifted programming and assessment instrument development. <https://www.education.purdue.edu/geri/>

National Association for Gifted Children

NAGC is a non-profit organization of parents, teachers, educators, community leaders, and other professionals who unite to address the unique needs of all children and youth with demonstrated gifts and talents, as well as those who may be able to develop their talent potential with appropriate educational experiences. www.nagc.org

National Center for Research on Gifted Education

The center, housed at the University of Connecticut, explores best practices in gifted education across the United States. <https://ncrge.uconn.edu>

National Foundation for Gifted and Creative Children.

There are many issues to face when raising gifted and creative children, supporting their needs within their home environment can be challenging enough, but the support network has to extend out and their educational needs also need to be addressed. Whether a child is gifted due to having significantly high intelligence or due to a disability, either of these needs should be addressed by the education board and provisions put in place to educate these children to the best of their ability.

https://rhodeisland.hometownlocator.com/maps/feature-map_ftc_2_fid_1902932_n_national%20foundation%20for%20gifted%20and%20creative%20children%20library.cfm

National Research Center on the Gifted and Talented

The NRCG/T, at the University of Connecticut has developed curriculum, assessment tools, and programming models under federal Javits grants and in collaboration with the University of Virginia, Yale University, Stanford University, the University of Georgia, and the City College of New York. It maintains a large storehouse of free research publications.

<https://nrcgt.uconn.edu>

The National School Boards Association

NSBA works with and through state associations. It advocates for equity and excellence in public education through school-based leadership. The association maintains that education is a civil right necessary to the dignity and freedom of the American people, and all children should have equal access to an education that maximizes his or her potential.

<http://www.nsba.org>

Renzulli Center for Creativity, Gifted Education, and Talent Development

The center and the projects that have originated there have been important in exploring who is identified as gifted and how they are served. <https://gifted.uconn.edu/>

Social and Emotional Needs of the Gifted

SENG brings attention to the unique social and emotional needs of gifted individuals, which are often misunderstood or ignored. www.sengifted.org

The University of Connecticut

UConn and the projects that have originated there have been important in rethinking who is identified as gifted and how they are served. <https://gifted.uconn.edu/>

Talent Identification Program

TIP is housed at Duke University. It is a nonprofit organization that supports academically talented students in grades four through twelve. TIP offers above-grade-level testing,

enrichment resources, year-round learning options, residential summer programs, online courses, and original research to supplement what students receive in school.
<https://tip.duke.edu>

World Council for Gifted and Talented Children Inc.

The WCGTC is a worldwide non-profit organization that provides advocacy and support for gifted children. The WCGTC is a diverse organization networking the globe with an active membership of educators, scholars, researchers, parents, and others interested in the development and education of gifted and talented children of all ages. The world council was founded more than 40 years ago and hosts a biennial world conference at a major international city during late July or early August in odd-numbered years.
<https://www.world-gifted.org>

National Professional Associations

American Association for Gifted Children

(Talent Identification Program)
David Goldstein, Executive Director
Duke University
1121 W. Main Street, Suite #100
Durham, NC 27701
<https://aagc.ssri.duke.edu/>

Association for the Gifted (TAG)

Council for Exceptional Children
1920 Association Drive
Reston, VA 22091
<http://cectag.org/>

National Foundation for Gifted and Creative Children

395 Diamond Hill Road
Warwick, Rhode Island 02886
<https://rhodeisland.hometownlocator.com/maps/feature-map.ftc.2.fid.1902932.n.national%20foundation%20for%20gifted%20and%20creative%20children%20library.cfm>

National Association for Gifted Children (NAGC)

1707 L. Street NW, Suite 550
Washington, DC 20036
<http://www.nagc.org>

National School Boards Association

1680 Duke Street
Alexandria, VA 22314
Email at info@nsba.org
<http://www.nsba.org>

State and Local Professional Associations

Albuquerque Association for Gifted and Talented Students (AAGTS)

Albuquerque, NM

www.aagts.org

New Mexico Association for the Gifted (NMAG)

www.nmgifted.org

Parents and Advocated of Gifted Education (PAGE)

Las Cruces, NM

<http://mopagesqf.org/>

Roswell Association for Gifted Students (RAGS)

Roswell, NM

<https://www.centerforprofitexcellence.org/nonprofit-directory/nonprofit/7949>

Glossary

Ability Grouping: arrangement of students by need or interest to meet various instructional purposes. These groups are specific to the educational goal to be achieved and can be flexibly formed and reformed as needed. This is not tracking.

Acceleration: access to higher-level learning activities and skill development than would be provided in general education to students of the same age. For gifted students, pacing, complexity, and depth in planned coursework must be accommodated or modified as indicated by individual needs. Acceleration is not a synonym for grade-skipping. It can be single subject or full grade. Acceleration may also be provided through a planned course, compacting/telescoping, specially- designed instruction, credit by examination performance, interdisciplinary planned courses, distance learning courses, higher education level courses, and independent or self-directed study.

Advanced Placement (AP) Courses: planned courses of study in which any secondary student may earn college credit and/or advanced college placement. These courses are normally available only at the 11th and 12th grade level. Credit is earned by successfully meeting criteria established by higher education institutions on a nationally given and scored Advanced Placement examination. AP courses are not specially designed instruction (i.e., special education) for students who are gifted. However, they are one option to meet the needs of gifted and other high-ability learners.

Authentic Assessment: a student evaluation technique using student products or performance instead of traditional standardized tests. This allows for greater focus on student individuality and creativity in the learning process.

CA: chronological age

Cluster Classes: placing students who are gifted and students in a special class or together in a group in one regular education class

Concurrent Enrollment: students take post-secondary courses and receive postsecondary credit in addition to attending high school classes. Post-secondary credit does not apply as high school credit.

Continuous Progress: Students progress in the curriculum according to ability rather than grade level.

Cooperative Learning Groups: grouping students with varying ability levels, often reflecting the full range of student achievement and aptitude to compete a common task and/or project. The purpose of such learning is to prepare students to live in a democratic society, to help them understand group membership and group dynamics, and to allow them to practice both leadership and cooperative skills. Misuse of the process occurs when

students are repetitively assigned to help others learn rather than being allowed to advance at their own pace. Sometimes the common task/project provides little challenge or learning opportunity appropriate to the abilities of the students who are gifted. This does not address the needs of students who are gifted in the same ways as ability grouping. This model rarely provides students who are gifted with sufficient academic challenge.

Curriculum Compacting/Telescoping: elimination of content that the student has already mastered, allowing a faster paced learning progression based on the student's rate of acquisition/retention of new materials and skills. Compacting allows students time to spend on in accelerated activities or in an area of interest mutually acceptable to teacher and student. Telescoping is typically conducted with the intent of grade-skipping.

Distance Learning: correspondence courses, on-line courses, or a combination of on-line and face-to-face (hybrid), offered to meet students' needs when they cannot be met locally.

Dual Credit: students receive both high school and post-secondary credit for specific courses.

Early Admission: A student may enter kindergarten at an earlier age than is expected. However, in New Mexico students must be at least five years old prior to 12:01 am on September 1 of the school year in order to be a qualified student who earns state funding to the district or charter school. Therefore, early kindergarten admission is not available in New Mexico at this time, *unless the district or charter school agrees to admit the student and not count them for funding. This is a local-level decision.* (See state statute at Subsection O (3)(a) of 22-8-2 NMSA 1978.

Early Graduation: student achieves his or her diploma ahead of the usual age or date.

Enrichment: in-depth learning experiences that provide interactions with new ideas, skills, and topics not ordinarily included in planned courses of study for regular education students of the same age. These experiences are based upon individual student strengths, interests, and needs.

Grade Skipping (also called Grade Acceleration): advancing or accelerating students through grades ahead of the usual age or date. Must be determined through SAT or IEP process.

Heterogeneous Grouping: grouping without regard to grade level, age, ability, background, learning style, or interest.

Home Schooling: educational services outside of public or private educational settings and operated by the student's parent or legal guardian.

Homogeneous Grouping: grouping based on common criteria such as student interests, special needs, or academic abilities. Neither heterogeneous nor homogeneous grouping should be used 100 percent of the time.

Honors Courses: secondary-level planned courses designed to be advanced in content, process, and product and usually requiring students to meet prerequisite criteria before course entry. They are not specially-designed gifted instruction unless accommodated and/or modified to meet individual gifted student needs. Honors courses are not synonymous with Advanced Placement (AP) courses.

Individualized Education Program (IEP): a written document developed and implemented by each Local Educational Agency (LEA) for all students within its jurisdiction receiving special education services (including gifted services).

Inclusion: a placement practice in which students with exceptionalities receive instruction with accommodations and/or modifications within the regular education setting.

Independent Study: allowing students to follow individual or self-selected areas of interest by designing and implementing their own study plans. Close monitoring by teachers is an essential component of this model. A written contract is developed by the student and teacher that states activities and monitoring schedules. This can be an appropriate program option for the gifted at any level, provided a teacher or qualified adult meets regularly with the student to provide feedback and oversight of milestones and goals.

Intelligence Quotient (IQ): a measure of intellectual aptitude at a given point in time based on comparison of children of the same chronological age—ratio of mental age (MA) to chronological age (CA).

Interdisciplinary Planned Courses/Units: courses/units that study a broad topic or concept by gathering and relating information and ideas from multiple subject areas and disciplines.

Magnet Schools: a public school accommodating students over a wide geographical area, often organized around a particular teaching philosophy or discipline. Montessori and performing arts magnets are two examples. Gifted and talented magnets also exist in some communities.

Mentorships/Internships: matching a student on a one-to-one basis with an adult member of the community who can provide expertise and/or advice in a field of study or other community endeavor. Both mentor and student have predetermined goals and outcomes. They are not specially-designed gifted instruction (i.e., special education) unless accommodated and/or modified to meet the individual needs of students who are gifted.

Norm-Referenced or Standardized Test: used to determine student status with respect to the performance of a norm group, which is composed of a large number of examinees who have taken the test and whose scores form the basis of the norms. Such a test may be based on national, state, or local norms.

Portfolio Assessment: a collection of student products used to measure student progress and achievement. Such assessment allows for the demonstration of a wide variety of abilities and talents that do not lend themselves to traditional measures. Usually, the student selects the content of the portfolio that effectively provides a profile of the learner and the quality of work.

Pull-out: students are removed from regular education classes for a specified period of time to meet specific gifted students' needs that cannot be met in the regular education setting.

Specially-Designed Instruction: educational provisions that meet the strengths, needs, and interests of gifted students as determined by an IEP—thus, special education. Such instruction is projected through annual goals, learning outcomes, and evaluation criteria for goal/outcome completion with related services and special materials. Specially-designed instruction can occur within or outside the regular education classroom as needed and can involve the regular education teacher, gifted education teacher/facilitator, and/or mentors.

Assessment Instruments

Assessment Instruments for Intellectual Ability

Cognitive Abilities Test (CogAT)

The CogAT assesses students' abilities in reasoning and problem solving using verbal, quantitative, and nonverbal (spatial) symbols. It is group administered. The most recent forms seven and eight were designed to be appropriate for non-native English speakers, and independent reviews indicate that the test creators have been mostly successful in this goal. <https://www.riversideinsights.com/apps/cogat>

Kaufman Adolescent and Adult Intelligence Test (KAIT)

The KAIT is an individually administered measure of general intelligence developed from fluid and crystallized theory. It is a multi-subtest battery for ages 11 to 85. <http://www.minddisorders.com/Kau-Nu/Kaufman-Adolescent-and-Adult-Intelligence-Test.html>

Stanford-Binet Intelligence Scales, Fifth Edition (SB-5)

It is an individually administered battery, taking five minutes per subtest. The SB-5 tests five factors of cognitive ability normed for individuals ages 2–85+. <https://www.wpspublish.com/store/p/2951/sb-5-stanford-binet-intelligence-scales-fifth-edition>

Weschler Intelligence Scale for Children, Fourth Edition (WISC-V)

The WISC-V is an intelligence test for children ages 6–16, measuring verbal and performance abilities, processing speed, and freedom from distractibility. There is a timed and untimed version. It generates an IQ score and can be given without reading or writing but is language based. Questions have been updated to ensure less bias against minorities and females. <https://psynso.com/wechsler-intelligence-scale-children/>

Assessment Instruments for Intellectual Ability among Diverse Populations

Cattell Culture Fair Test, Third Edition (CFIT III)

The CFIT was developed with the intent to remove cultural and language bias; questions are visual in nature. It tests fluid and crystallized intelligence. The CFIT III can be administered either individually or in a group setting.

<https://iqtestprep.com/cattell-culture-fair-test/>

Comprehensive Test of Non-Verbal Intelligence, Second Edition (CTONI-2)

The CTONI-2 is useful for testing individuals—ages 6–89, 11 months—with difficulties in language or fine motor skills, including those who are bilingual, non-English speaking, motor disabled, or neurologically impaired. However, standardization samples did not include non-English speaking populations. The CTONI-2 assesses simultaneous and sequential processing, fluid and crystallized intelligence.

<https://www.slideshare.net/TanyaTantzAerineGeri/the-ctoni2-comprehensive-tests-of-nonverbal-intelligence-second-edition>

Das-Naglieri Cognitive Assessment System (CAS)

The CAS is a measure of intelligence based on the planning, attention, simultaneous, and successive (PASS) theory of cognitive processing that is fair to minorities, effective for differential diagnosis, and directly related to intervention. It is individually administered and appropriate for ages 5–17.

<https://www.wpspublish.com/store/p/2697/cas-das-naglieri-cognitive-assessment-system>

Differential Abilities Scales, Second Edition (DAS-II)

The DAS-II is individually administered, with 20 cognitive subtests grouped into the Early Years and School Age cognitive batteries. General Conceptual Abilities score is a composite score focusing on reasoning and conceptual abilities.

<https://www.pearsonassessments.com/store/usassessments/en/Store/Professional-Assessments/Cognition-%26-Neuro/Comprehensive-Ability/Differential-Ability-Scales-II/p/100000468.html>

Hiskey-Nebraska Test of Learning Aptitude (H-NTLA)

The H-NTLA is an individually administered nonverbal test for students with hearing impairments. <https://eric.ed.gov/?id=ED236173>

Leiter International Performance Scale, Third Edition (Leiter-3)

The Leiter-3 is an individually administered, game-like task assessing cognitive, attentional, and neuropsychological abilities for ages 3.0 to 75+. It offers a completely nonverbal measure of intelligence ideal for those who are cognitively delayed; non-English speaking; speech or hearing impaired; or on the autism spectrum; who have traumatic brain injury; or attention deficit hyperactivity disorder or attention deficit disorder.

<https://www.wpspublish.com/store/p/2840/leiter-3-leiter-international-performance-scale-third-edition>

Naglieri Nonverbal Ability Tests 3 (NNAT3)

The NNAT3 is a nonverbal, online test that measures nonverbal reasoning and general problem-solving abilities, used for qualifying K–12 students for gifted and talented programs. Due to the few instructions required and minimal use of language needed to solve the items, the NNAT3 is appropriate for examinees from culturally and linguistically diverse backgrounds. The NNAT2 will continue to be available through December 31, 2019 after which, you will be unable to purchase any new NNAT2 materials or inventory.

<http://www.mercerpublishing.com/nnat/overview?msclkid=8b72cf27a6fd15ba0507922dfc7b6199>

Screening Assessment for Gifted Elementary and Middle School Students, Third Edition

The SAGES-3 is designed to identify gifted students ages 5.0 through 14.11. It can be administered to individuals or in a group setting, assessing and providing domain scores in Reasoning (verbal and nonverbal) and Academic Abilities (language arts/social studies and math/science). Avoiding bias in regard to gender, race, ethnicity was a focus.

<https://www.proedinc.com/Products/14765/sages3-screening-assessment-for-gifted-elementary-and-middle-school-studentsthird-edition-complete-kit.aspx>

Universal Non-Verbal Intelligence Test 2 (UNIT 2)

The UNIT 2 is a multidimensional assessment of intelligence in a completely nonverbal format. It provides seven composite scores for ages 5.0 to 21.11 and is individually administered. It is based entirely on nonverbal stimulus and response. It has abbreviated, standard, and extended batteries.

<https://www.wpspublish.com/store/p/3346/unit-2-universal-nonverbal-intelligence-test-2>

Weschler Non-Verbal Scale of Ability (WNV)

The WNV is an intelligence scale for linguistically diverse populations. A full battery and brief editions are available, one for ages 4.0–7 and ages 8.0–21. Supplemental directions provided in several languages.

<https://www.pearsonassessments.com/store/usassessments/en/Store/Professional-Assessments/Cognition-%26-Neuro/Wechsler-Nonverbal-Scale-of-Ability/p/100000313.html>

https://downloads.pearsonassessments.com/images/PDF/brochures/WNV_Brochure.pdf

https://link.springer.com/referenceworkentry/10.1007%2F978-0-387-79061-9_3067

Screening Instruments for Intellectual Ability

Kaufman Assessment Battery for Children, Second Edition (KABC-II)

The KABC-II is a clinical instrument for assessing cognitive development. It incorporates developments in psychological theory and statistical methodology. Attention is given to

emerging testing needs such as use with students with learning disabilities and appropriateness for cultural and linguistic minorities. Scales and subtests include Simultaneous Processing, Sequential Processing, Planning, Learning, and Knowledge. Provides correct Spanish-language responses and teaching text on the easels and record form.

<https://www.pearsonassessments.com/store/usassessments/en/Store/Professional-Assessments/Cognition-%26-Neuro/Gifted-%26-Talented/Kaufman-Assessment-Battery-for-Children-%7C-Second-Edition-Normative-Update/p/100000088.html>

Kaufman Brief Intelligence Test, Second Edition (KBIT-2)

The KBIT2 quickly measures verbal (Verbal Knowledge and Riddles) and nonverbal (Matrices) intelligence through two sub-tests.

<https://www.pearsonassessments.com/store/usassessments/en/Store/Professional-Assessments/Cognition-%26-Neuro/Non-Verbal-Ability/Kaufman-Brief-Intelligence-Test-%7C-Second-Edition/p/100000390.html>

McCarthy Scales of Children's Ability (MSCA)

In an individual administration, the MSCA measures the development of intellectual abilities of children ages 2.6 to 8.6 and includes six scale scores: verbal, perceptual-performance, quantitative, composite (general cognitive), memory, and motor ability. This test is out of print, although Pearson will continue to supply components while stock lasts.

<https://www.pearsonclinical.co.uk/Psychology/ChildCognitionNeuropsychologyandLanguage/ChildGeneralAbilities/McCarthyScalesofChildrensAbilities/McCarthyScalesofChildrensAbilities.aspx>

Ravens Progressive Matrices (RPM)

The RPM is designed to measure the ability to form perceptual relations and to reason by analogy, independent from language and formal schooling. It is appropriate for ages six to adult. There are no time limits, and the oral instructions are simple. There is evidence that the RPM is responsive to both high-functioning and classic autistic students. F

Slosson Full Range Intelligence Test (S-FRIT)

The S-FRIT is a brief and reliable screen of general, Verbal/Non-verbal intelligence. The S-FRIT is individually administered for ages 5–21 and is intended to supplement the use of more extensive cognitive assessment instruments, such as the WISC-III, K-ABC.

http://www.slosson.com/onlinecatalogstore_i1003976.html?catId=51697

Test of Nonverbal Intelligence, Fourth Edition (TONI-4)

The TONI-4 offers an assessment of intelligence, aptitude, abstract reasoning, and problem solving that is free of the use of language. It features new norms to help ensure proper representation of demographic changes in the US population.

<https://www.pearsonassessments.com/store/usassessments/en/Store/Professional-Assessments/Cognition-%26-Neuro/Non-Verbal-Ability/Test-of-Nonverbal-Intelligence-%7C-Fourth-Edition/p/100000612.html>

Achievement Screening Instruments

Next Generation Iowa Assessments

The Next Generation Iowa Assessments are an achievement test battery, developed to be aligned to the Iowa Core and tested in Iowa. The assessments test students' (K–11) progress in the Iowa core subjects of ELA, math, science, and social studies. The assessments can be administered online or as a pencil and paper assessment.

<http://itsnt962.iowa.uiowa.edu/NGIA/Documents/NGIA-Overview.pdf>

Otis-Lennon School Abilities Test (OLSAT 8)

The OLSAT 8 assesses abilities related to success in school, including detecting likenesses and differences, recalling words and numbers, defining words, following directions, classifying, establishing sequence, solving arithmetic problems, and completing analogies—clustering item types into Verbal, Verbal Reasoning, Non-verbal, Figural Reasoning, and Quantitative Reasoning. Statistically and through item review, bias is minimized.

<https://www.pearsonassessments.com/store/usassessments/en/Store/Professional-Assessments/Academic-Learning/Comprehensive/Otis-Lennon-School-Ability-Test-%7C-Eighth-Edition/p/100000003.html>

Peabody Individual Achievement Test-Revised-Normative Update (PIAT-R/NU)

The PIAT-R/NU is an individually administered assessment for children ages 5.0–22.11. The PIAT-R/NU measures individual academic achievement, providing nine scores. It can be used to screen for specific learning disabilities, and its multiple-choice format allows a pointing response for most items.

<https://abledata.acl.gov/product/peabody-individual-achievement-test-revised-normative-update-piat-rnu>

<https://psycentre.apps01.yorku.ca/wp/peabody-individual-achievement-test-revised-piat-r-nu/>

Spring 2019 New Mexico Standards-Based Transition Assessment of Math and ELA

The transition assessment is fully aligned to State adopted NM Common Core State Standards. This transition assessment—created with linking items that have undergone educator reviews for content, bias and sensitivity, and field testing—allow for comparability to past SBA tests. The Spring 2019 Transition assessment will still be administered in TestNav and continue to be managed through PearsonAccess^{next}. All publicly available resources (e.g., online practice sites) for prior administrations are still appropriate for use as preparation and practice for the Spring 2019 transition assessment.

<https://webnew.ped.state.nm.us/bureaus/assessment-3/spring2019mathela/>

Stanford Achievement Test, Tenth Edition (SAT-10)

The SAT-10 is a multiple-choice assessment that measures the academic progress of students, K–12. It provides objective measurement of achievement to identify student strength and needs, leading to effective placement and instructional planning.

<https://www.pearsonassessments.com/store/usassessments/en/Store/Professional-Assessments/Academic-Learning/Comprehensive/Stanford-Achievement-Test-Series-%7C-Tenth-Edition/p/100000415.html>

Test De Vocabulario en Imagenes Peabody (TVIP)

The TVIP measures the receptive vocabulary of Spanish and bilingual speakers. The manual is available in English and Spanish. Norms are available for both combined and separate Mexican and Puerto Rican standardization samples.

<http://pearsonclinical.in/solutions/test-de-vocabulario-en-imagenes-peabody-tvip/>

Wide Range Achievement Test, Fifth Edition (WRAT5)

The WRAT5 is a brief achievement test measuring word reading, spelling, sentence comprehension, and math computation. The WRAT5 is normed for ages 5.0 to 85.

<https://www.pearsonassessments.com/store/usassessments/en/Store/Professional-Assessments/Academic-Learning/Brief/Wide-Range-Achievement-Test-%7C-Fifth-Edition/p/100001954.html>

Achievement Tests

Bateria III Woodcock-Muñoz (Batería III)

The Bateria III is the Spanish version of the Woodcock-Johnson III—tests of cognitive ability and tests of achievement.

<https://www.hmhco.com/~media/sites/home/hmh-assessments/clinical/woodcock-munoz/pdfs/bateriiaiiiasb1.pdf>

Woodcock-Johnson Tests of Cognitive Abilities, Fourth Edition (WJ-IV)

The WJ-IV has two distinct, co-normed batteries. It provides a comprehensive system for measuring general intellectual ability, specific cognitive abilities, scholastic aptitude, oral language, and academic achievement. It is appropriate for ages 2–90+ years.

<https://www.testingmom.com/tests/woodcock-johnson/>

Weschler Individual Achievement Test Second Edition (WIAT-II)

The WIAT II is an individually administered achievement battery of nine subtests, designed for students Pre-K through 16. The revision was to strengthen the link between assessment and instruction/intervention.

<http://images.pearsonclinical.com/images/pdf/dshandouts/wiat-iiiv2.pdf>

Screening Assessment Instruments for Creative Thinking

Khatena-Morse MultiTalent Perception Inventory (KMMPI)

The KMMPI has two forms of 50 items each designed to identify leadership, music, art, and creative talent of people age 10 years and over. Although the KMMPI has not undergone norming and is not a standardized assessment, the inventory is promising as a brief screening devise for multitalent presently defined as versatility.

<https://journals.sagepub.com/doi/10.2466/pms.1987.64.3c.1187>

Renzulli Scales for Rating the Behavioral Characteristics of Superior Students, Third Edition

The Renzulli scales are based on a multiple talent approach to the identification of gifted students and a standardized questionnaire obtains teacher estimates of a student's

characteristics in 13 areas. It is teacher rated. Each score is separate, and there is no total score.

<https://drpfconsults.com/renzulli-scales/>

<https://gifted.education.uconn.edu/wp-content/uploads/sites/612/2014/08/Scales-for-Rating-the-Behavioral-Characteristics-of-Superior-Students.pdf>

Structure of Intellect (SOI) for Creativity

In the Guilford SOI theory, intelligence is viewed as three dimensional, comprised of 1) operations—six kinds, 2) contents—five kinds, and 3) products—six kinds, resulting in 180 components of intelligence. SOI identifies a number of different types of creative abilities. The Divergent Figural Units (DFU) measures the ability to use figural representation, and the Divergent Production of Semantic Units (DMU) measures creative writing skills.

<https://www.instructionaldesign.org/theories/intellect/>

Thinking Creatively in Action and Movement (TCAM)

The TCAM is norm-referenced and assesses the creativity of young children, ages 3–8 and others with limited verbal and drawing skills. There are three subscores produced in Fluency, Originality, and Imagination.

<https://www.rand.org/education-and-labor/projects/assessments/tool/1981/thinking-creatively-in-action-and-movement.html>

Thinking Creatively with Sounds and Words (TCSW)

The TCSW consists of two tests: sounds and images (SI) and onomatopoeia and images (OI). It measures the originality of responses to abstract sounds and onomatopoeic words. A CD provides the stimuli. The TCSW is available for grades 3–12.

<https://www.ststesting.com/gift/>

Torrance Test of Creative Thinking (TTCT)

The TTCT removes language as a testing barrier; students draw and give a title to their drawings or write questions, reasons, consequences. The TTCT is composed of five creative thinking tests. It is used as part of the gifted matrices to assist with the identification of creatively gifted students.

Screening Assessment Instruments for Critical Thinking

Arlin Test of Formal Reasoning (ATFR)

The ATFR has been presented as an instrument useful in the identification of students for placement in accelerated mathematics programs. It was not found to be of additional value to identifying these students.

<https://psycnet.apa.org/record/1992-37645-001>

<https://journals.sagepub.com/doi/abs/10.1177/0013164492052002019>

Cornell Critical Thinking Tests (CCTT)

The CCTT is designed to measure critical thinking abilities of students in grades 5–12+. It is group administered. It can be used to teach critical thinking skills and to predict students' performance on state proficiency exams, honors/Advanced Placement programs, critical

thinking courses, and others. <https://www.criticalthinking.com/cornell-critical-thinking-tests.html>

Ennis-Weir Critical Thinking Essay Test (EWCTET)

The EWCTET, originally conceived as a critical thinking test, can also be used as an informal diagnostic instrument, an evaluation tool for instructional effectiveness (formative evaluation), or as material for teaching critical thinking. It is appropriate for grades 7–college.

<https://eric.ed.gov/?id=EJ422614>

https://www.academia.edu/1847582/The_Ennis-Weir_Critical_Thinking_Essay_Test_An_Instrument_for_Teaching_and_Testing

Structure of Intellect (SOI) for Critical Thinking

Among its many constructs of intelligence, the Guilford SOI identifies critical and analytical thinking. The Cognition of Semantic Units (CMR) measures analogical reasoning, and the Convergent Production of Symbolic Implications (NSI) tests logic and reasoning ability. See two previous SOI references for a more thorough discussion.

<https://www.instructionaldesign.org/theories/intellect/>

Watson Glaser Critical Thinking Appraisal (WGCTA)

The WGCTA is an assessment tool designed to measure an individual's critical thinking skills. <https://www.assessmentday.co.uk/watson-glaser-critical-thinking.htm>