

Math and Science Advisory Council Meeting
September 11, 2020
10:00 am to 3:30 pm

This meeting was held virtually via Zoom Webinar.

These minutes were unanimously approved by the MSAC on October 13, 2010

1. Present

Members:

Wanda Bulger-Tamez

Scott Robbins

Glenda Leonard

Anna Suggs

Tanya Rivers

Mollie Parsons

Dave Dooling

Marcia Barton

Math & Science Bureau: Yanira Vazquez, Shafiq Chaudhary, Christy Krenek, Jenifer Hooten

2. (10:27) Call to Order
3. (10:31) Welcome & review guidelines/rules for online meetings - refer to document in the shared folder
4. (10:32) Review and modify agenda. Discuss meeting wrap up at 14:00 as a lead into the next steps related to report preparation. Discuss identifying "Critical Issues" by the end of the meeting. Propose inserting subgroup summaries after the 05/01 minute approval.
5. (10:37) Discuss and approve minutes from the May 1, 2020 meeting. Members consider the value and appropriateness of including Zoom chat transcript as a part of the minutes for the meeting. Also discuss the value and appropriateness of the other links to support documents related to the topics discussed in the meeting. Members define all abbreviations used in the minutes.
6. (10:54) Subcommittee updates begin with Math Framework progress report. Regular meetings were convened through the end of July and August. The timeline was adjusted to lead up to a draft framework document ready by December 2020. STEM Symposium subcommittee presentation was summarized. The symposium workshop was well-attended and resulted in some valuable input from teacher/administrator participants.
7. (10:59) Discuss MSAC membership and the need for new members. One member has recently resigned creating a new need in the K-12 classroom instructor category. Four current members will be rolling out of the MSAC in this coming June (2021). Discuss using the participant roster from the STEM Symposium to reach out to prospective MSAC member nominees. MSAC will forward a draft email message to M & S Bureau

who will send out an email solicitation. Application for membership is now online and fully digital. Resume and letters of interest may all be submitted electronically. Members discuss other ideas for soliciting applications for membership.

Break (11:18 - 11:30)

8. (11:30) PED Updates summarized. MSAC members discuss the value of the STEM Symposium in its virtual 2020 format. Recognize that virtual or hybrid approaches to such professional development events have certain advantages particularly in the areas of expanding access and reducing travel costs. Members discuss the status of the OpenSciEd Field test and PED M&S participants provide some detailed information. Members ask about PED support of teacher professional development to support implementation of Zearn, Illustrative Mathematics in NM classrooms. Discuss the need to help parents in navigating technology currently in place to support widespread remote learning. Members ask about the status of evaluation data collected to measure impact of science and math instructional delivery initiatives. Question raised on the importance and PED efforts in aligning K-12 administrator support of ongoing math and science education improvement efforts. Discuss the need for accelerating (vs. “remediating”) student progress as the State moves through the COVID adaptation process. Members ask about education funding impacts of the pandemic. Funding reductions ranged in the 4% - 6% area.

Written PED Summaries Submitted to the MSAC

Mathematics Framework

The Math Framework committee met over the summer to refine the outlines for the Math Framework and are currently working to pull ideas together to form the narrative. A draft is scheduled to be presented to the Math Framework committee in early October and a finalized draft to the PED in December.

New Mexico Instructional Scope

The Bureau worked to support the Teaching, Learning, and Assessment division with the development of the New Mexico Instructional Scope. In June, 182 Mathematics and English Language Arts teachers worked to create the documents. A smaller subset of the group continued to identify priority standards for acceleration to support educators with school reentry.

OpenSciEd Field Test

NM teachers are continuing in the final year of implementing field test units. Nineteen field test teachers were trained on new units in July 2020. The State Steering Committee for OpenSciEd decided to restart the round four and start round five field tests this school year in grades 6, 7, and 8. Several units are now publicly available as open resources and, through a rigorous review by Achieve, are labelled with the NGSS Badge, designating it as being of high-quality. In addition, OpenSciEd has developed remote teaching guides for the publically released units and several NM field test teachers are providing feedback.

Science Innovations Leadership Cadre

The Science Innovations Leadership Cadre supported 10 elementary schools in their implementation of the K–6 NM STEM Ready! Science Standards through the development of school culture and structures that support science teaching, learning, and assessment in southern NM. When schools shut down in March, the project quickly pivoted to provide support with distance learning by offering several webinars for both teachers and school site educators in the project . This project has come to an end.

Illustrative Mathematics Pilot

A collaborative effort between New Mexico State University Mathematically Connected Communities (NMSU-MC²) and MSB to pilot the Illustrative Mathematics open education resource for Grade 6–8 and Algebra 1 classrooms. The pilot supported 85 teachers from 11 districts and 2 state charter schools. When schools closed in March, the project pivoted to provide teachers with online support to transition to distance learning utilizing the IM curriculum. This project ended in May 2020.

Making Sense of SCIENCE

In May, we were able to offer a series of virtual Facilitation Support sessions for math and science project facilitators. The virtual sessions also highlighted techniques that could be used in remote learning. In June, we were able to offer a virtual Facilitation Academy for the Supporting Science Instruction Administrator course. This was a small pilot that provided valuable information about the possibility of conducting a Making Sense of SCIENCE course virtually.

New Mexico Measure of Student Success and Achievement (NM MSSA)

The NM MSSA is on track for a fully operational assessment this year.

New Mexico Assessment of Science Readiness (NM-ASR)

During the summer, the Assessment Bureau virtually convened committees to review new items to field test, check those items for bias and sensitivity issues, and range finding reviews. The NM-ASR is on track for a fully operational assessment this year.

The First Virtual NM STEM Symposium

A virtual NM STEM Symposium was offered on June 8–12 as MSB pivoted from face to face PL to virtual due to COVID-19. Sessions were offered around the theme: ***Building a Foundation For STEM***. Teachers were able to select from 30 sessions within the following strands: Behind the Sciences: Explicitly Integrating S-T-E-M, STEM for All: Instruction and Intervention, Monitoring Students' STEM Learning, and Rekindling your STEM Education. Total attendance of all sessions was 2,387, with representation from over 70 school districts and state charters.

WestEd's Making Sense of SCIENCE team offered a series of webinars open to all facilitators around conducting professional learning virtually and coaching sessions for Symposium facilitators. Facilitators could sign up for pre and post feedback sessions on their facilitation. The feedback was positive from both facilitators and participants.

MC2-TEAM

Administrator and teacher training took place virtually, from late March to June. The NCTM publication *Principles to Action: Ensuring Mathematical Success for All* was the grounding document for the work involved with this project. 11 schools and 67 educators participated in the training. This project ended in June 2020.

Elementary Mathematics Specialist Competencies

Through the public comment and internal PED process, the competencies will become effective on September 15, 2020 and posted in the New Mexico Register.

Presidential Awards for Excellence in Math and Science Teaching

Jessica Equibel from Albuquerque Public Schools and Melody Hagaman from Las Cruces Public Schools were recognized on August 5th as national PAEMST awardees for 2019. Jessical Equibel is the national 7–12 awardee for Mathematics and Melody Hagaman is the national 7–12 awardee for Science/Computer Science.

The next PAEMST application cycle has been extended to October 26, 2020, for K–6 Math, Science, and Computer Science teachers to complete their applications. So far, 12 mathematics and 9 science teachers have been nominated/begun the application process. The next round of applications for 7–12 Math, Science, and Computer Science teachers will open this fall. .

NM Governor’s STEM Challenge and Showcase

The New Mexico Department of Workforce Solutions (NM DWS), New Mexico Public Education Department (NM PED), and NMSU invited NM high schools to participate in the 2020 Governor’s STEM Challenge and Showcase. The Challenge will recognize achievement and develop potential in NM’s diverse student population by exploring how STEM careers can address local, state, and global challenges. The Challenge will also advance and support the integration of NM STEM Ready! Science Standards into everyday classroom activities, and encourage students to pursue local STEM career opportunities. Student teams from NM high school STEM classes will imagine, design, and develop a project model to address a question formulated by NMSU: ***How can you combine New Mexico's natural resources with technology to address regional/global needs***

Participating NM industry employers will judge teams based on quality and degree to which answers reflect skills required for careers with NM STEM businesses, and award winning teams \$5,000 (\$500/student). Sponsor teachers will receive a \$500 stipend, in addition to professional development opportunities and funds for supplies and materials through the Public Education Department. School team applications are due September 18 and projects due in late November. The Showcase will occur virtually on December 5, 2020.

NM GLOBE

MSB will continue to support GLOBE by providing technical support and sharing information with our educators around the state.

NM MESA

The Legislature, through funds from House Bill 002, APPROPRIATIONS & EXPENDITURES, has appropriated \$62,400 to support the Mathematics, Engineering, Science Achievement (MESA) program.

9. Lunch (12:05 - 12:40)

10. (12:40) Members review the draft outline for the annual report. Discuss how to approach the question of missing achievement data. Agree to reduce the “Data” section to explain the impact of the pandemic on data collection across the country. Discuss how best to identify the “Critical Issues” for this year’s report.

(13:15) Members work in breakout groups to consider critical issues most worthy of including in this year’s report. Small groups share their conclusions. Discuss the role of the MSAC and Math & Science Bureau in supporting the needs of families as they relate to providing quality educational opportunities for all students. Members discuss other areas that would be important for the readers of the 2020 report to consider. Critical issue areas reduced to A. “Quality STEM education for all” and B. “Teacher/Administrator Professional Development.”

11. (13:50) Members discuss the next steps in preparing the first draft of the report. Discuss possible dates and times for a follow up meeting. Talk about collecting stories, vignettes, illustrating school and student responses to the pandemic disruptions. Members discuss ways by which relevant field observations and quotes may be linked to the report.

(14:19) Members volunteer to help out with collecting stories and some volunteer to help compose a draft version of the introduction to the report. Glenda, Mollie, Wanda, Marcia will be focusing on the Introduction and Scott, Dave, Anna, and Tanya will be focusing on getting the stories together. MSAC will reconvene on September 23, 8:30 - 11:00 to review products of the two working groups. Members discuss data to be collected for the report and approaches for presenting the data. M&S Bureau will collect the data for the draft report and the members will consider what should be included in the final report. Discuss options for report format. Small working groups set up dates for meetings before the follow-up MSAC meeting on the 23rd.

12. (15:06) Meeting adjourned