

Math and Science Advisory Council Meeting Minutes

February 7, 2019

9:45am to 3:15pm

Milagro Middle School — Library
351 W Zia Rd, Santa Fe, NM 87505, Santa Fe, NM 87505

Dr. Wanda Bulger-Tamez
Ms. Christy Krenek
Dr. Scott Robbins
Ms. Kim Scheerer

Ms. Tanya Rivers
Ms. Mollie Parsons
Ms. Bernadine Cotton
Ms. Glenda Leonard

PED Math and Science Bureau members: Marcia Barton and Patricia Carden

Guests: Dr. Gwen Perea Warniment, Deputy Secretary for Teaching and Learning and Selena Connealy, Education & Outreach Manager, NM EPSCoR

Call to Order - 9:00 am

Introductions

- New members: Glenda Leonard (K-12 school Administrator), Tanya Rivers (higher ed.) & Mollie Parsons (partnership)
- Dr. Gwen Perea Warniment, Deputy Secretary for Teaching and Learning

(9:22) Review and approve agenda (Additions/Deletions)

(9:35) Minutes: approved minutes from October 22, 2018 meeting, etc. MSAC members will transfer approved minutes to PED representative in compliance with requirements.

(9:26) Reminder of NEW group norms

(9:28) Review electronic communications format: encouraged to bring a laptop

(9:44) Leadership positions for 2019-2020: MSAC Co-Chair will need to be filled, position responsibilities are summarized. SR will remain in Secretary position. Members will continue conversation on potential co-chair. Current co-chairs will provide information to prospective members interested in the role.

(9:49) PED Math and Science Bureau update (~45 min): Paper summary of recent PED initiatives distributed to members (pdf copy included in MSAC G-Drive folder). Discussion on Making Sense of Science (MSS) offerings for teachers - extended conversation on "Systems" part of the MSS program. Discussion on the subject of participant selection and inclusion for MSS institutes. PED members share anticipated schedule for 2019 MSS offerings. MSS program performance is discussed - demonstrates impressive knowledge gains in teachers as well as students, especially lower-performing students. Currently 50 facilitators have been prepared to deliver various modules (e.g. waves, systems, dynamic Earth, etc.). Discussion touches upon the

process whereby information regarding the MSS offerings is distributed. Recognized opportunity may exist for the inclusion of Title I and Title II educators.

Making Sense of Student Work (MSSW) - Math courses will be delivered on 2/16/2019 and 3/02/2019. Seventy-five teachers are expected to attend.

Science Readiness Partnership (SRP) initiative will focus upon the implementation of the STEM Ready! standards. Focus (SRP) on curriculum (integration), resources, planning, and time management responds to priorities raised by teachers and administrators from January 26 meeting. Leadership SRP days involving district-level administrators have also been delivered (2 sessions). Opportunities for improving communication from district offices down to school leadership level may be worth exploring. Discussion ensues on the funding and long-term implementation plan for propagating the SRP across the state.

MC² Multiplicative reasoning 2-day professional development opportunities discussed. Integrated MSSW protocol to help teachers better assess potential gaps in student knowledge and understanding. Another session is coming up in February - aimed at providing teacher participants with both content knowledge along with assessment tools and techniques.

Science Instructional Materials Reviews have been completed over the past year. Math instructional materials reviews will be coming up summer 2019.

National Assessment Educational Performance (NAEP) schools selected for science assessments.

Computer Science standards have been adopted with PED responsible for K-8 implementation, College and Career Readiness will take responsibility for grades 6 - 12. Currently in the earliest planning stages.

Break: 10:35 - 10:50

Selena focuses conversation on the role of the MSAC, the statutory basis for the MSAC, the role Rick Scott in organizing NM statewide efforts in math and science (STEM) instructional improvement. NM Partnership for Math and Science Ed. has been relevant since its inception in 1990. Selena walks through the Historical Timeline for STEM Education Activity in New Mexico (copy retained in MSAC Google Drive folder). Discuss roles and responsibilities of the MSAC relative to the M & S Bureau and the legislature.

Members review the MSAC STEM Strategic Framework. Discuss the group process whereby priorities may be established. Recognize the need to focus MSAC attention on a manageable set of actions anticipated to have a positive impact on the most pressing needs. Criteria for prioritizing recommendations and next steps discussed. Process for getting started on understanding the background for MSAC is discussed to assist new members with establishing context and history.

Discuss the certification question, would a K-6 “math specialist,” “math and science specialist,” or something else be established? Discuss the recent Yazzie Martinez court decisions involving

unequal of educational services negatively impacting learners in Native American and Hispanic communities.

PAGE, iPAGE at the Science Museum of Minnesota presented as a useful reference point for questions surrounding the need to support STEM education in underrepresented communities.

12:00 Lunch and Network: Deputy Secretary for Teaching, Learning, and Assessment (TLA, Gwen) provides an update on TLA. Teacher Quality (TQ) = licensure + Teacher Growth and Development (evaluation). Educator pipeline is hooked into TQ. Position will focus upon curriculum integration touching multiple bureaus. Professional development to support the integration of the various bureaus will be included. Need to assess and connect various standards as they relate to PD. Third bucket is focused upon assessment - to be more than just a mechanism for accountability to facilitate reflective practice of instructional program delivery. Distinction between assessment and accountability is discussed. Articulation with process whereby priorities are established to improve school and instructional performance is discussed. "Community Schools" defined - revised ESSA plan will address how to apply effort to push gains in the lower performing, high needs communities. Budget levels have been discussed, \$6M ask from the executive is the current starting point. Work is now underway to prioritize and more carefully define how funding will be distributed.

1:00 Reconvene from lunch

Revisit the Strategic Framework to narrow down priorities. Based on input from Gwen and previous discussion focus appears to be coming upon "High Educational Performance for all NM Students," and "Highly Trained STEM Teachers for All Students."

Selena provides some background information on the function and purpose of EPSCoR program and how it articulates with other components in the NM STEM education ecosystem. Need for improved communication connecting various components in the state - "PR." NM schools are unique in minority (76%) composition, which makes it difficult to catch up in NAEP-type interstate comparisons. Can the STEM Coalition be revived? (Kathy Keith).

Members go around the table to share aspects of the STEM education challenge in NM that best characterize their passion.

- Math education as a "civil right," the importance of quality math education for all students.
- Teacher preparation and opportunities for continuous learning and professional development. Every teacher should have equal access to quality growth (PD) opportunities in STEM. (2 responses)
- Out-of-school STEM learning and after-school learning plays an important role in making science education more connected, relevant, and fun. Addresses challenges in STEM educational equity,
- Using project-based learning as a way to address equity challenges by making STEM education more culturally relevant to young learners. Including arts helps to connect STEM education to the community.
- Hire and retain quality educators. Provide quality PD opportunities and networks of support, teaching teams within schools and school systems.

- “Systems of learning” can support teachers at the entire development trajectory of teachers from higher ed. preparation through continuing education and PD. Ideally teachers should be able to work within a nurturing system that supports them as they develop individually as members of teams and communities.

2:00 MSAC members discuss how best to articulate what we think of as priorities. Draft a letter to the Secretary of Education highlighting what the MSAC members would consider high potential actions worth pursuing

2:20 Discuss process whereby key information may be conveyed to the Secretary of Ed. and members of the NM legislature. Members split into two groups to draft letters, one for the Secretary and one for NM Legislators.

3:10 Members review the two draft letters. All vote to accept the letters as drafted.

3:11 Members agree upon a process for distributing the letter to legislators - Christy’s students will take and distribute the letters on 2/15/2019.

3:13 Members agree upon a process for delivering the letter to the Secretary letter - Send via post and then send a follow-up email towards the end of the legislative session.

3:14 Discuss schedule and location for the next MSAC meeting: Consider both Las Cruces (NMSU) and Socorro (NM Tech) on May 17, 9:45 am - 3:15 pm. Follow-up confirmation will be sent to members via email.

3:15 **Sunshine & Blues**: Descriptive feedback on the flow, process, or content of the meeting

3:15 Meeting adjourns.