

Math and Science Advisory Council Minutes
May 15, 2009; 10:00 am to 4:00 pm
NM State University, Las Cruces, NM

In attendance: Bob Eisenstein, Joyce Kaser, Cathy Kinzer, Lorenzo Gonzales, Kim Thomas, Len Duda, Franny Dever, Cheryl Coyle, Ted Stanford, Tom Gruszka, Mary Jo Daniel, Claudia Ahlstrom (note-taker)

Guests: Rick Scott, Doug Brown, David Finston, Dean Morehead, Harry Johnson, Steve Kanim, Lisa Viraz, Sara Morales, Harry Johnson, Michelle Sterling-Rodriguez, Terri Hansen, Pat Carden Harty, Wanda Bulger-Tamez

Bob Eisenstein called the meeting to order at 10:00 am.

Michael Morehead, Dean of Education at NMSU, was invited to address the Council. He welcomed the Council to the newly renovated building. In response to the increased math credit requirement for elementary education students, he stated that NMSU is designing a course to be offered to all elementary education students that would be available next year; one goal is to have a math class closer to the time of graduation. Dean Morehead reported that enrollment in teacher education declined 7%. He stated that the decline may be a one year occurrence, not a trend—it is too soon to know. In response to a question, Dean Moorhead stated that if entry level competencies for teachers are revised, they will build or revise their courses to meet the competencies as needed.

Cheryl Coyle presented a report on the Gadsden Math Initiative. The Gadsden district adopted one standards-based math program, *Investigations*, for the entire district and mandated summer professional development (40 hours) programs for all teachers. It was a “top-down” decision to require the summer professional development but “bottom-up” support was provided throughout the year by math coaches. Cheryl noted that to manage complex change, all elements must be present including adequate supplies and materials for all teachers. Through the initiative, some teachers have received over 500 hours of professional development; they are working to develop consistency of what happens in the classroom. They have seen significant gains in student achievement in lower grades but have not seen much growth at the high school level so far. For continued improvement, they need administrators who are instructional leaders with a vision for their schools as learning organizations.

Cathy Kinzer (and team) reported on Mathematically Connected Communities--MC2. MC2 is working with 19 school districts. They have 8 mathematicians conducting research, 12 field specialists and additional staff for a total of about 25 people. MC2's goal is to help districts to improve math achievement district wide. Initially the program worked with individual teachers and the teachers individually decided what to implement. While they got positive responses from participants, when MC2 staff went into classrooms, they saw very little change. They changed their approach and required district to demonstrate their commitment by signing an MOA to adopt standards-based

math textbooks and provide time for teachers to participate in Professional Learning Communities. MC2 is now in its 3rd year of this approach, focusing on how to implement a standards-based curriculum. They see various levels of quality of implementation or commitment; some are still not 100% behind a standards-based approach. MC2 offers 4 Summer academies in 3 locations; all middle schools are implementing *CMP*. High schools are using 4 different programs, so MC2 has had to adjust the professional development to address those different curricula. In addition to the summer institutes, they work directly in schools, modeling instruction and provide district-wide professional development. They are now increasing their focus on leadership, using *Lenses on Learning* program, inviting district leadership teams to attend a summer academy and follow-up days throughout the school year. They will also provide coaching for leaders.

MC2 also has an NSF-funded SUMA project through which they are looking at lots of data on math achievement and alignment through the years.

Terri Hansen presented information on Scientifically Connected Communities--SC2. SC2 has been funded since 2006 by the PED's Summer Institutes. Terri compared the goals of SC2 with MSAC's goals (in NM Project 2012) and demonstrated how well these two goal sets aligned. SC2 uses a unifying theme for each summer's institutes and models a variety of resources for teachers to use in their classrooms, attempting to provide resources to support teachers' implementation of learning. SC2 offers 5 day summer institutes for middle school teachers. Challenges she identified included different schools use different curricula, lack of equipment at schools, and a lack of safety procedures. SC2 also helps plan and facilitate student field trips, provides microscope repair and assists teachers in grant writing.

During lunch, which was generously provided by the NMSU SUMA program, Joyce Kaser took a few moments to thank Bob Eisenstein for acting as MSAC chair for 2 years and presented Bob with a gift certificate for dinner from the Council. Council members each thanked Bob and expressed their appreciation for his leadership, commitment and persistence as MSAC chair.

Harry Johnson provided information on the - Science Advisor Program (SCIAD). This program was established in 1989 at Sandia National Laboratories and in 1990 in Las Cruces. In the 1990's it turned into the Science Education Alliance (SEA), using community volunteers to support science instruction in Las Cruces schools. LC Public Schools now include funding for a SCIAD administrator in its budget. SEA includes 71 volunteers who provide approximately 1300 volunteer hours. They share their expertise and act as professional role models, helping to reduce fear and increase enthusiasm for science. They provide resources for teachers and have developed backpacks with science experiments to do at home with parents

Steve Kanim reported on the NMSU PRIMOS grant, Partnership for Retention and Improvement of Meaningful Opportunities in STEM. This is a two year grant—\$1.2 million per year--focused on increasing the number of NMSU students who declare a

STEM major and get degrees in STEM. They are implementing a transfer model between Dona Ana Community College & NMSU.

Dave Finston reported on NMSU's Project MESH--Math, Engineering, Science Hybrid. This program develops online STEM courses which can be offered for dual credit.

The Council discussed two issues that they had added to the day's agenda. The first was how to provide more direct feedback to Secretary García on Council issues, relevant research and other information. Suggestions were made to increase information provided on the MSB website as well as to invite legislators to PED-funded summer institutes. Mary Jo agreed to ask Asst. Secretary Gloria Rendon if she is willing to meet with a delegation from MSAC on a regular basis.

The second issue that was added to the agenda was a discussion of efforts by some district leaders to replace taking the NM Standards Based Assessment (NMSBA) with a short-cycle assessment (NWEA MAPS). Las Cruces Public Schools passed a resolution calling for a suspension of the NMSBA and concern was expressed that this effort was more wide-spread. Council members expressed concern because they see changes in the way math is being taught linked directly to the NMSBA and its inclusion of constructed response items. Short-cycle assessments serve a different purpose from the NMSBA; the two are not interchangeable. Mary Jo agreed to present the issue to Asst. Secretary Rendon and to ask if the Council can or should get involved in discussions with Superintendents about this issue.

The Council had a brief discussion about work needed next year in prioritizing and identifying responsibilities for NM Project 2012 recommendations and determining legislative priorities for next year. This will be a priority for next year's Council. A recommendation to include a greater focus on the role and importance of school unit leadership should be added to NM Project 2012.

Plus/Delta Evaluation of Meeting

NMSU provided a great meeting space; learning about programs in/around Las Cruces was helpful. We should invite Northern NM to do the same.

It was suggested that in the future presentations be intermixed with more extended discussions, rather than holding back-to-back presentations.

This was the final meeting for the 2008-09 year. The term of four of the Council members expires June 30. These members—Ed Spivak, Len Duda, Cheryl Coyle, and Pat Lopez—were thanked for their service. Applications for the Council are due May 29; appointments will be made by Secretary García to begin in July. The Council will reconvene in August, 2009.