

Oregon Math Education Council Meeting February 2, 2008

Attending: Phyllis Leonard, Martha Van Cleave, Michael Boardman, Kathy Hall, Nicole Rigelman, Linda Samek, Cassandra Barnes, Laura Lethe, Ann McMahon

New President needed

Phyllis has been the State Department Chair for two year and four year schools. She is now coming off that committee and so will no longer be officially a member of OMEC. So she will need a President to take over for her on this council.

Oregon Department of Education

No representative was present. Phyllis will write a letter from this committee telling Jim Leigh that we need him to participate in this group to share his expertise. Don Fineran and Cathy Brown preceded him in this position. They worked closely with teachers to represent the State, recognizing that weekends were the only times to make that connection.

There are fewer and fewer content specialists at ODE, which may be why the state is listening to other groups more and more (such as OCTM, TOTOM, OMEC). We were pleased that the adoption of the high school standards have been post-poned until the NCTM High School standards have been published. The expected date for that first draft publication in April, 2008.

Discussion followed regarding the groups that are working on drafts for the Essential Skills for high school.

Linda is on the Standards and Assessment committee. They have met twice with about sixty people on their committee. It was clear at that meeting that the State wanted School Districts to take over this responsibility. The committee was shocked! How will assessments be written for the new Essential Skills? Who will pay teachers for all that extra work? Who scores them? Is there a statewide rubric we will use? How can these be demonstrated? How can they be a criteria for high school graduation? At what level...such as "emerging level of global literacy."

Linda is also on the Policy group, which is mostly higher education and business folks. We talked about how you would teach personal management

and teamwork skills (being responsible and dependable, participating cooperatively and productively work in teams, display initiative).

Kathy, from HP, gave input regarding individual thinking styles of employees: linear thinkers vs integrative thinkers. With all the layoffs at HP, those who developed technology were able to keep their jobs. About 80% of people are linear thinkers. The other 20% are the ones who graduated in quantum physics. They are the ones who need help with communication.

What is the relationship between Essential Skills and Content Standards?

The content standards really only go through grade 10. These are course standards, such as 3 years of math. The Essential Skills are broader, overarching. It's where you take all the content things and apply them to your life. You can demonstrate math knowledge from a science work sample.

The merit of all this is that we are looking at them at all. The Essential Skills are well outlined and connect with the standards.

The problem is #4 and #5.

#4 Apply math in a variety of settings. This doesn't reflect NCTM's process standards. Taken alone, this could be a lot of low level stuff, such as the math you would use in science or social studies.

We would reword #4 like this:

. Interpret a situation and apply appropriate mathematical concepts and strategies, using appropriate tools.

. Produce evidence, such as graphs, data, or mathematical models, to obtain and verify a solution.

. Communicate and defend the verified process and a correct solution, using pictures, symbols, models, narrative or other methods.

(note that we removed the technology language...it's too prominent here...put it in #6

#5 Think critically and analytically across disciplines

The thought here is that these are statistical and analytical skills. Are they assessed in application skills? You might need multiple assessors in cross-disciplined, integrated pieces.

If the Essential Skills are adopted, the high school graduates of 2014 will have to be competent in all these skills to get a regular high school diploma. There won't be a modified diploma. No one has talked about what we will do with all those kids who aren't interested in challenging themselves to this level. We are responsible for the designated Special Ed students until age 21. They might do better to stay in high school instead of going to the community college because higher social skills levels are required at that level.

What about CIM and CAM? The name died in the last legislature, but not the idea. How are the Essential Skills different than CAM? The problem was that CIM and CAM were mandated from above. In order to make the Essential Skills "stick", we need time to make them work. We don't want to hear people say, "What is next?" with regard to reforming education.

The *Essential Skills* demand that you know your students individually. You have to provide evidence in their file that they can do these things. You can't just check them off as a group. The State Board wants to adopt these by June of 2008. They are just expecting kids to meet these standards and not change our system of how we work with students. We feel this won't work. New issue: seat time versus showing levels of competency

To "*be embedded in the content standards*"...what does this mean? Is this like a 5th grade social studies unit on polar bears that integrates math? Our big concern is that **processes are not** embedded in the content standards. They are just one line stating: "It is essential that these Focal Points be addressed in contexts that promote problem solving, reasoning, communication, making connections, and designing and analyzing representations." The proposed Essential Skills don't have the rigor they used to have in the NCTM Standards. There is apprehension about what this will communicate. We are NOT getting at the depth! We want math problem solving and the process standards to apply to the Essential Skills as well.

There are two tasks here:

- 1) essential skills – HS exit requirements, must be articulated to ALL teachers
- 2) elementary and middle school teachers

We have to back up and look at the content standards and what comes before the essential skills. What is the transition here? The content

standards build up to the essential skills. These must be addressed throughout all levels of education K-12

In the United States there is a serious movement to do away with local control. It's given on NPR as the reason why the US is behind other countries. People are saying that local control does damage to education. The example of Finland was cited. There is a national curriculum, more or less. However there is variation within and between schools. It all depends on the teachers and their understanding of the material and how they relate to students. There is a huge move from the right to take over school boards. They think the unions control them !

State Math Contests

Kathy Hall wants to know how we get the word out about the statistics math contest sponsored by the ASA Chapter (American Statistics Association)? Every single entry is judged based on its application of statistics. They gave \$10,000 in scholarships last year plus many graphing calculators. Their 6th grade math club went to Washington DC and Durban, South Africa

These were the **suggestions:**

put on OCTM listserv and Website

TOSA (Teachers on Special Assignments) folks can discuss

OMLI teachers should be informed

Linda Samek will facilitate a connection with NWMC ...the Northwest

Math Conference is coming up next fall and they need good HS sessions

Oregon Math Leaders – perhaps ASA could do a presentation this August

contact Mark Janeba at Willamette University...their department chair for math

OMLI (Oregon Math Leadership Institute)

MSP (Math Science Partnership) presented at the MSP Learning Network Conference in Washington DC this month. They presented the data and impact of the OMLI project on teacher and student learning.

The teacher knowledge increased by the second summer, which makes the case for long-term professional development.

Student achievement did not show the improvement expected perhaps due to the change in cut scores. In order to overcome this, they created a tool for implementation of OMLI related ideas and looked at the correlation between implementation and student achievement. This type of analysis showed an increase in student achievement and looked at the correlation between implementation and student achievement.

Elementary Math Endorsement Certification

Johnny Lott & Skip Fennell are advocates of this preparation and certificate. Math 211, 212, 213 ---you can't assume elementary teachers have had this sequence, especially in private schools. CBMS (College Board of Mathematical Sciences) recommends 9 hours of math for K-4 teachers and 21 hours of math for grades 5-8. More than 50% of elementary teachers are at private universities.

Nicole spoke about the PRISM grant which targets K-8 teachers. It all started with the Science educator's dreams to integrate more science into K-K-5 classrooms. It is modeled after Read Oregon. More information about this project can be found at <http://prismoregon.org>. Ann reported that PSU is developing mathematics courses for the PRISM certificate. Partners include: the University of Portland, George Fox, Western Oregon, Lewis & Clark, OSU, and Eastern.

PSU wants to develop a certificate of completion in elementary math entitled: Deepening Mathematical Understanding for Elementary Teachers.

Mission Statement

We need to remind other organizations of our mission statement in an intentional way. We want to raise their consciousness of our mission. OMEC was endorsed originally by ODE to make recommendations. What groups would we contact?

Why does membership rotate from Southern/Eastern/Western? We should invite someone from every institution! Problem is it tips the balance We should invite public institutions to meet and choose a couple of representatives...the collective.

With 3 meetings per year, we need our officers to stay on longer than a year. We want to use the OCTM format: president elect, president (2 years), past president. A total of a four- year commitment would assure continuity and give history to the incoming group of members.

Membership

We are at a transition point. Today there was no four- year public college person present. Meeting attendance has not been good. Kathy Hall with talk with Tom Dick. She proposes to help us work on our structure and make a SWAT (strength/weakness) analysis at our next meeting in May.

We are not prepared to nominate a new president until we find out why people are not here!

- 1) look at current membership list
 - 2) find out why people are not attending...different day/time
 - 3) have they lost interest...do they have a new person to nominate?
 - 4) don't see any behavior change in education...industry looks at it this way
 - 5) evening meetings might be possible when weather permits
 - 6) district administrators should be contacted to support their teachers
- Action - Phyllis and Ann volunteered to contact people personally.

The next meeting may be May 16th (Friday) or 17th (Saturday) or an evening?????

Actions

- 1) Phyllis will write a letter to Jim Leigh (see page 1)
- 2) Phyllis will write a letter with our input about the High School Essential Skills –write her THIS WEEK
- 3) A committee will work on an advocacy letter for funding high school diploma work: Essential Skills, 3 year math requirement, draft of HS content standards, CIM managers, demand for professional development

Our role is to foster a proactive force for teacher education.

Who will be the audience? Oregonian, Statesman Journal, State Board of Education, Legislature, OCTM, TOTOM, Pre-service ed teachers...the State needs to invite these people into the conversation.

Next fall session of senate and house begins January, 2009. What will be the timing of sending this letter? Linda will ask Chalkboard people. It is a citizens groups of 120 people around the state.

Committee members: Martha, Mike, Laura, Kathie Quick, Winnie Miller led by: Phyllis

- 4) Ann and Phyllis will work on OMEC membership