

OMEC Notes 10/15/08

Introductions:

O.C.T.M. represented by Ann McMahon

Northwest ESD's represented by Lynn Bonser

High School teachers represented by Kathie Quick

Western Oregon Public University represented by Klay Kruczek

Pacific University, Independent Colleges represented by Mike Boardman

Industry Representative is Kathy Hall

Oregon State Public University represented by Scott Peterson

Parent group represented by Nicole Rigelman

George Fox private university represented by Linda Samek

Portland State Public University represented by Sean Larsen (Math Ed department)

Middle School teachers represented by Marla Baber

Chemeketa Community College represented by Phyllis Leonard

Curriculum Specialists (TOSA) represented by Manny Norse of Beaverton Schools

Mannie Norse report

The K-8 content standards, which are articulate and clear, have been very well received. The NCTM Connections from Curriculum Focal Points K-8 are now being worked on by the Math Content Panel. The problem is that teachers need professional development. There seems to be no aerial view of what they are doing because content knowledge is an issue. As an example, 42% of Beaverton teachers who are teaching math do not have a math degree. The intention is to have teachers teach to the standards are to have the core curriculum support these standards. Teachers need to be able to supplement with other resources. How are teachers to know what it means to teach more depth and less breath? What about secondary teachers?

Mannie and Laura are doing the Algebra task force. Last year, 52% of 10th graders met the standard on the OAKS test statewide. If students fail the OAKS test three times, they can do a work sample. This does not promote excellence because there is no standard. Each district can set their own standard for these two work samples. If you are going to have a high school diploma, does this represent a high level of excellence and a depth of mathematical understanding? It is a bigger issue, a systematic issue that also deals with students who are not doing homework.

Proposal: ODE must make a clear document that transitions from the old standards to the new. This needs to be done now. The second issue is one of assessment. Why does it take six years to do this? How can we say to teachers: “Here are your brand new books. In six years you will be able to have assessment standards that match these. An additional proposal is to move the OAKS test to grade 11. If the test is kept at 10th grade, then all you can assess is Algebra 1. Otherwise, we will have the lowest standards in the country. You have wiped out an integrated approach. The work sample has to be a valid assessment and have the standard written into it. Many curriculum specialists also feel that calculators should not be allowed at grades 3 or 5 on a multiple choice test.

Mannie has brought the draft of a letter which he would like edited by OMEC, TOSA and the Math Content Panel. He feels the audience would be the Governor, the Superintendent of Schools and the State Board of Education.

Further discussion ensued about the Essential Skills regarding its application to mathematics. It is felt that there is a highly political relationship between ODE and the State Board of Education. The OAKS test does not suffice here and the elements inherent in the process standards have been neglected, particularly problem solving.

Manny’s letter: OMEC is not ready to endorse this. Historically we have written parallel letters. We need a more positive slant on his letter that raises the same points. Nicole has been volunteered to draft a letter like this. Timeline: after the valley TOSA’s meeting on December 8th.

Linda Samek

TSPC is getting ready to do a complete rewrite of their standards that cover teacher preparation programs. They are moving content standards to a whole new place. They also adopted some standards for Early Childhood Education, but they have refused to do anything else about authorization. So there is nothing happening there. It is highly unlikely that the Prism Project will even be considered as an elementary math endorsement for another year and a half. TSPC want new tests, not new license endorsements. It is felt that TOSA, Math Coaches and Title 1 people need to put pressure on TSPC for this special licensure. If indeed the goal is deeper knowledge, what should we be expecting from recent graduates? Right now the reality is that math teachers are being hired without certification. Instead, they get emergency certificates. Phyllis Leonard and Linda Samek have been invited by ODE to attend the Math Content Panel meeting at the end of October.

What are we going to do with the students who aren't meeting benchmarks? You don't make them repeat what they have already done! What is a good course of study for those who are motivated but truly struggle?

Phyllis Leonard

How can OMEC make some kind of impact? All teachers have to do is pass the Praxis. People can get a math degree and not understand the mathematics for teaching. Phyllis reminded us of our mission. What are some effective ways that we can begin to share our concerns. It's not just our particular group, but there is a wider concerned group. We are supposed to be a voice and that's why people like Manny come to our meetings. So how do we get ourselves heard?

Nicole Rigelman

She feels like Manny's letter is a great letter to come from the TOSA's, but it doesn't get to the heart of the problem for teachers. There has been so much turnover at ODE and these new people don't have a history of the work that has been done before them.

Klay Kruczek

He feels that going higher may not be the solution. Linda said she is in correspondence with Pat Burke, the Assistant Superintendent responsible for policy. She wants to know a useful political procedure for OMEC to use. Are we preparing higher ed people to be voices?

The commission looking at course syllabus and the assessment itself had a faculty meeting in Chicago. The message was loud and clear that we want our students to know Algebra. We need to strengthen the requirements for students who can take Algebra 2. More students are taking Calculus now in high school than are taking it in college. Pushing it down into the high school curriculum is having a huge impact. The expectation is that if a student wants to go to a top college, they must already have had a full year of Calculus in high school because the colleges offer no remediation. However, only 35% of students in AP Calculus in high school get a 4 or a 5.

Kathie Quick and others:

We are skimming the really good Algebra skills because our curriculum has far too much breadth. We are trying to accelerate students to get to higher

levels of math without giving them the foundational skills they need, such as a deep knowledge of fractions. Some suggested resources:

“Your Dog Can Do Calculus”

Carnegie Cognitive Tutor

Math Excel (developed at Stanford about fifteen years ago and designed around group work with more open-ended problems)

Study Tables – five to eight students an hour a week. These are more about helping with homework.

Learner Web -a national grant through PSU. It is an online, interactive approach to learning mathematics on your own through websites.

Options for Alternatives: Tony Albert, from ODE, feels that data says a GED is not worth the paper it is printed on. So the discussion has centered around the fact that the GED may not be valid anymore. Has Oregon set the standard for the GED so low that this becomes the issue? Currently you can get into a four year institution with a GED. They usually require that you have to take a math placement test.

State Math Contests

Scott Peterson will send Klay an email with the new person’s name at the University of Oregon. (Mike Price) It is called: the Oregon Invitational Math Tournament.

OMLI

Kathie reports that they just finished up a round of studios in the middle school. She would like to get a high school studio going, like what is happening in Washington state. It’s a fishbowl idea where a teacher agrees to be part of a studio and works with a coach. They brainstorm and other teachers come in as observers. These teachers observe students while they are doing the math task and watch the classroom teacher and the math coach co-teach this lesson. Then they come back and debrief. It’s not a research lesson because they are implementing curriculum that already exists. They might be listening for mathematical discourse. So this is different from Japanese Lesson Study.

OMLI got an extension grant to continue this. They are definitely spreading out to non-OMLI teachers. Phyllis is working with a group of non-OMLI teachers in South Lane.

SWAT Matrix from Kathy Hall (strengths, weaknesses, opportunities and threats)

strengths, weaknesses: the now

opportunities and threats: the future

OMEC people need to finish writing their job descriptions!

Our objective: to energize groups that we represent

We have room for:

OSU rep (Chancellor's office: Bruce Schaffer at PSU, an engineer)

Member at Large

Were these valid members? Do we need a new category?

How can we make this worthwhile for Eastern and Southern Universities to attend our meeting?

STEM

Science, Technology, Engineering and Mathematics

We need to stay aware of things. Kathy is on an economic development panel. They want to improve the number of applied science and engineering majors as well as computer science.

Especially from OCTM, if there is a better way to get this information onto the Website, that would be great. It might be a great place to put this information.

e.g. If you want to build a rocket that works underwater, you can get \$5,000 for your school.

Position Paper

- Investigate elementary math endorsement
 - High school diploma :
 - High School diploma requirements
 - Adequate funding for high school diploma
 - Math proficient issues – a white paper on the whole quality of mathematics education in Oregon.
 - Where it is? What is mathematics in Oregon?
 - Where can we go?
 - How are we going to get there?
- Speaks from our goals and vision, not from what it isn't.

White paper

Why should you require mathematics? What is the purpose?

What is the purpose of this set of standards? You don't get an adjustable loan when the interest rates are at a historical low!

The problem solving aspect is huge! It is a way of thinking and having Number Sense, but how do we develop a free response section to a test

without incurring a huge cost? This type of test tells what we value mathematically. We lose sight of the fact that we want student to DO the mathematics. Your studying is more intense if you know you have to do an open response test. Taking a High School Calculus class does not really mean you are ready for a college Calculus class. At that age, they go through the tricks without really understanding the conceptual driven concepts. Some of this is developmental.

The course titles are sometimes an impediment. To get into college, students feel as if they need to AP classes. Students apply to get into these AP classes and then drop out, in order to get this on their transcript for college.

Resources:

The Math Instinct, Why You are a Mathematical Genius (along with cats and birds) by Keith Devlin, 2005.

The Book on Primes by Marcus Dusautoy (Oxford math professor)
Calculus for Cats, same people who wrote Algebra Unplugged

The Possomery : Jeremy@peak.org

<http://peak.org/~jeremy/hexagons>

jkeener@cocc.edu (Fraction Fridays by Julie Keener)

Kathy Hall will send us a video called Shift Happens, put together by Chicago Public Schools. Looks at economic impact and where the world is going. Gives us a good perspective.

Response to Paul Hibbard

He wants feedback regarding the assessment timeline. (for Jim Leigh)
He plans to begin a Webinar and sees this as a way to begin to get information out.

Professional Development Taskforce – a train the trainer model next summer. People would then go to regional areas. The next layer goes down into the schools. This would be a competitive grant process because ODE doesn't have the money to give this opportunity to everyone.

Why would we require mathematics?

Phyllis will compile this for our group. We can send a quote we have or just our opinion. Not sure of our audience at this point.

Problem solving gets mixed up with inductive and deductive reasoning.

Early December 5th meeting for a committee at 1:30:

Klay, Nicole, Phyllis, Marla, Linda

The next OMEC meeting will be called by Klay and a later date in February will be decided.