

Elementary Math Endorsement Meeting  
Monday, February 09, 2009  
11:00-3:00

The meeting began with a discussion of a title for the Elementary Math endorsement. Should it be called Level I? Diana Suddreth explained that it has never been called Level I although Level 2, 3, 4 math endorsements are all secondary math endorsements only. She's not sure why secondary math began as Level 2 endorsement. It was agreed that it should be Elementary Math Endorsement.

Members of the committee looked through the endorsement course offerings from Utah's universities. The name of the course should reflect the course name on the math endorsement check off list.

There are 7 courses needed for the elementary math endorsement. Question: are these the courses we need to have? Should there be 18 hours? Some schools have them grouped together but currently it is 17 hours. There should be a common syllabus framework for each course, and have similar titles. The checklist should be standardized. The courses offered at the universities look really common. There is newer information that needs to be incorporated in the endorsement courses and some classes should be combined. Technology should be incorporated into all courses.

How the endorsement courses look at Weber State:

Algebra - 3.0

Geometry - 3.0

Problem Solving - 3.0

Probability & Statistics - 3.0

Number Theory - 3.0

Arithmetic of Rational Numbers - 3.0

Technology is used throughout all classes.

Discussion: Problem solving should be imbedded throughout all courses. Assessment and intervention could be one course. We should have a rational numbers and proportionality course. Technology should continue to be used in every course. The subject of interpreting assessments should be included. Instead of number theory, the course should be numbers and operations. The interconnections of core curriculum should be explained. NCTM standards should be included in everything as well as the core curriculum.

This is a suggestion of what the courses should include and in what order they could be taken:

We need to present math courses the way reading courses were done. The reading endorsement is very successful. The elementary math endorsement needs the content wrapped around pedagogy. How do we teach pedagogical content knowledge? When kids can't do it, go back and unpack what they now know and get back to what the basic problem is. Deborah Ball has done extensive work with children and understanding how students access algebra and how their

thinking causes problems with their math work. Teachers need to come into teaching with a good understanding of the content they need to teach.

Here is a list of what the endorsement classes could look like and a suggested order in which to take them:

Numbers and Operations – 4.0

Proportionality and numbers (and decimals) – 4.0

Algebra – 3.0

Assessment – 3.0

Probability & Statistics – 2.0

Geometry – 2.0

Embed in all courses: technology, NCTM standards, problem solving, and core curriculum.

It is hoped that the old endorsement will be phased out the summer of 2010 for those who are already in the process and getting their endorsement. (USOE is the gatekeeper of the endorsements. Districts should work with USOE.) USOE will work with districts and individuals as to accepting old courses to be applied to new requirements.

The endorsement needs to include a section on frequently asked questions.

What will a highly qualified instructor need: 1) Master's degree in any field, 2) Math endorsement, 3) District or consortium recommendation. Teachers should have their license before they start doing an endorsement.

Suggestion to University:

- 1) University selected
- 2) Funded by public education / districts may request instructor

Names of university people who we would like to have come to the next committee meeting:

Diane Pugmire	Weber State
Dixie Blackinton	Weber State
Patricia Moyer-Packingham	Utah State University
Eulla Monroe	BYU
Damon Bahr	BYU
David Wright	BYU
Hugo Rossi	U of U
Aaron Bertram	U of U
Marilyn Kier	U of U
Dr. Prent Klag	SUU
Katy Herbold	SUU
Brenja Koller	Utah State University
Jim Barta	Utah State University
Elaine Tuft	Utah Valley University

What the Math Leadership Endorsement could look like:

1. Coaching (Internship) 2.0
2. Assessment Leadership 2.0
3. Equity Leadership 2.0
4. Curriculum Leadership 2.0
5. Teaching and Learning Leadership 2.0

We should have a template of the course framework.

Framework for course:

Course Title

Date

Department

Institution

Semester

Instructor

Address

Phone

The purpose of this course:

Objectives: We list objectives – align them with NSTA standards

Possible ext:

Supplemental Text:

Possible Course Topics:

Possible Assignments:

Theory and Research:

Literature Review:

Bibliography:

**Next meeting: Tuesday, February 24 at noon – USOE Boardroom**