

Mathematics Community Advisory Committee
Wednesday September 3, 2008
Gentry Middle School

The meeting was called to order at 4:03 p.m. by facilitator, Paul Pitchford. Committee members in attendance: Lex Akers, Tim Bilyeu, Wesley Bird, Ann Bledsoe, Marla Clowe, Walter Gassman, Elaine Hassemer, Sharon Jacoby, Susan Lever, Cheryl Lightner, Catherine Linder, Jennifer Mast, Michelle Pruitt, Joseph Quetsch, Jeanne Sebaugh and new member Bob Hibbs. Support staff in attendance: Michelle Baumstark, Linda Coutts, Jack Jensen, Sally Beth Lyon, Chip Sharp. Shari Kraus served as recorder.

Welcome and Preview of the Evening's Work

Paul Pitchford stated that the group would be continuing the review of curriculum objectives started last year. He welcomed Bob Hibbs to the group.

Paul stated that Chip Sharp would provide an overview of the elementary and 6 – 8 curriculum objectives format. The committee would then be given the opportunity to review the curriculum objectives and provide feedback on the objectives and input into the rest of the year's work.

He stated that the major work of last year was to look at national, state and Columbia Public Schools skills and competencies as per the first goal of the committee.

Paul then reviewed the purposes and goals of the committee:

Purposes

1. To provide a forum for ongoing two-way communication among Columbia Public Schools and its constituents regarding the mathematics education.
2. To support reflective efforts in the continuous improvement of teaching and learning of mathematics in Columbia Public Schools.

Goals

1. To investigate the mathematical skills and competencies necessary in the 21st century for all students.
2. To provide advice regarding the district's efforts to address these skills and competencies.
3. To act as a critical friend by bringing expertise and perspective to our work.

The committee reviewed the norms and approved as stated.

Curriculum Objectives – Mr. Chip Sharp: Guiding Principles and Review To-Date

Chip informed the group that the curriculum objectives to be reviewed are a culmination of the work that began in May with the review of the mathematics Measurable Learner Objectives for grades K – 5 and 6 – 8. Not only did the district receive feedback from this committee, but from the community through on-line feedback. The documents under review by the committee are based on that input. Before final documents are presented to the Board of Education, the district would like another round of committee input.

Factors and guiding principles for curriculum development:

1. To have students study math through the 5 strands of mathematics:
 - Conceptual understanding – comprehension of mathematical concepts, operations, and relations
 - Procedural fluency – skill in carrying out procedures flexibly, accurately, efficiently, and appropriately
 - Strategic competence – ability to formulate, represent, and solve mathematical problems
 - Adaptive reasoning – capacity for logical thought, reflection, explanation, and justification
 - Productive disposition – habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one’s own efficacy.
2. Objectives must be matched to the Grade Level Expectations as mandated by the State of Missouri. The GLEs outline the state expectations for what is to be taught.
3. As there is not a national curriculum, it is important to be mindful of suggestions of state and national organizations who work to upgrade math standards in the nation. Documents such as ACHIEVE and the National Math Advisory Panel can provide such standards. (ACHIEVE is a national organization formed by governors and CEOs to talk about math, the purpose of which is to bring business leaders into the discussion so as to look at math from more than one perspective.)
4. DESE Curriculum documents must be considered. The challenge is to balance the information from state and national documents as most have the same general target, but not all targets occur in the same year.
5. Narrow the number of topics so as to focus on fewer, but key topics.
6. Create a clear document that can be utilized by the primary audience of teachers working with students, but also to have language that is clear to parents and public.

Following are questions from committee members and district responses:

Sebaugh: Can we expect more from Columbia Public Schools students than the state requires?

Sharp: We need to provide a balance for students without overwhelming them. To that end the District has eliminated dead-end mathematics courses at the high school level, and now requires all students to have a 3rd year high school math course that is college prep.

Quetsch: Are the documents geared toward differentiation or do they strive for the center?

Sharp: Center

Bledsoe: Are we cutting topics?

Sharp: The intent is not to cover water-front each year, but to build on ideas and give students the opportunity to revisit them with increasing depth.

Bird: Reduce the spiral effect?

Sharp: Yes. They have done so in Japan, devoting a lot of time to a topic at a grade level, but not going back to that topic.

- Pruitt: Will the committee review these documents again? When is the adoption of the curriculum scheduled?
- Lyon: Curriculum objectives will be presented to the Board of Education at the September 18 Board Work Session.
- Sebaugh: If the curriculum objectives are approved, how are they used?
- Sharp: Curriculum objectives are used to identify curriculum materials to be used, as well as help teachers know what to focus on while working with students.
- Segert: Why does the District have to create curriculum standards? Why not use pre-existing standards, such as the California standards?
- Sharp: One state's standards, such as California's, may not be the same as the Missouri math standards. Because the MAP tests are based on Missouri standards, we need to make sure that our curriculum aligns with MAP/Missouri standards. We can look at the language and recommendations from other groups/states, and we have done so in some cases, but we need to ensure that the language adopted is clear to all and is aligned to Missouri standards.

Work in small groups: Provide advice regarding Columbia Measurable Learner Objectives

Paul Pitchford directed the group to reorganize into small groups to review MLOs based on their grade level preference. The group work focused on clarifying the language of K – 5 and 6 – 8 mathematics curriculum documents, in order to make the language clear not only to educators, but to the general public. Groups also provided advice regarding objectives to be added, deleted, or moved within the grade level scope and sequence.

Closing Reflections and Feedback: Topics for the year's work

Paul thanked the group for their assistance in clarifying the objectives. The revisions will be incorporated into the existing documents by Linda Coutts and Chip Sharp. Committee members were encouraged to complete the Reflections and Feedback sheet, as their comments influence the agenda for the next meeting.

The meeting adjourned at 5:55 p.m.

Attachments – 3