

Mathematics Community Advisory Committee

February 20, 2008

The meeting began at 4:05 p.m. Shari Kraus served as records.

Welcome and Introductions – Paul Pitchford

The meeting began with opening statements from the facilitator for the Mathematics Community Advisory Committee, Dr. Paul Pitchford. Following introductions by committee members the group decided on a set of rules for proceeding through the next 3 sessions:

- Begin and end on time
- Respect others' view points
- Turn off cell phones
- Participate fully
- Limit sidebars conversations

Committee Purpose and Goals – Dr. Sally Beth Lyon

Dr. Lyon thanked committee members for investing their time in the students of Columbia Public Schools. She stated that at this time, the committee is scheduled to meet on three more occasions during the current school year. However, she invited the committee to consider a long term commitment to the Advisory Committee, perhaps in terms of a three year commitment.

She stated that the Advisory Committee was formed out of recommendation from the Secondary Mathematics Task Force to establishment a means for two-way communication between the district and parents and community members regarding the mathematics curriculum.

Purposes:

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

Goals:

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

Dr. Lyon shared the Curriculum Program Evaluation/Review Process, which is broken into a five year cycle of program evaluation, rewriting, implementation, monitoring and adjusting of curriculum. The cycle for each curriculum area is depicted in the 5-Year Curriculum Review Plan which is available on the district website at <http://www.columbia.k12.mo.us/parents.html>. The Curriculum Review Plan is a fluid document which is adjusted as needed to reflect the progress of the work. Not only does the document provide a timeline for implementation of curriculum, but is also a tool to help manage district resource by ensuring that implementation of curriculum is staggered for a balanced use of funds from year to year.

Dr. Lyon stated that the Mathematics Community Advisory Committee is separate and above the program evaluation committee, as its work is not limited to the phases of program evaluation.

Dr. Lyon thanked those not on the committee for their attendance. She stated that those who attend the meetings, but are not committee members will be given the same opportunity to participate.

The Mathematical Skills and Competencies Necessary in the 21st Century – Small Group Discussion and Gallery Walk – Paul Pitchford

Participants worked in table groups to discuss mathematical competencies and to list the characteristics and elements of an effective math program. Each table generated a list of ideas which were shared with the committee. Lists were displayed and discussed.

Common themes discerned from the discussion:

- Flexibility
- Competence and Confidence in Math
- Communicate the Language of Math
- Problem Solving

Elements of Highly Effective Mathematics Programs, Article Discussion – Paul Pitchford

Tables were assigned segments of the article, *Elements of Highly Effective Mathematics Programs*, to review and identify key ideas. Each table compiled their thoughts and shared the following:

Segment 1 – What Gets Taught

- A comparison of the top performing countries and the bottom performing countries show that those with top performing curriculum utilized a spiral approach to curriculum. The spiral format allows for a deeper study of the curriculum. The program that spirals deeply can have a powerful effect.
- As standards are variable from state to state, publishers create curriculum that spans a large quantity of topics, but does allow for in-depth subject review. Because of a lack of standard structure in this country, we are unable to delve as deep into the materials as needed.

Segment 2 – How Math is Taught

- There should be an integration/balance of skill and problem solving to produce an effective program.
- Assessment Practices: Use whole group, peer and individual assessments.

Segment 3 – Good Teaching is Key

- Identify struggling students early on and develop effective interventions.
- Use real life examples.
- How to teach, when to teach.
- Content knowledge is key.

Segment 4 – Role of District and School Leaders

- A combination of strategies is needed to systemically make changes.
- Long term effective changes go off the table if leadership is not in place.
- Need to build leadership to sustain effective programming.

Feedback – Sally Beth Lyon

Dr. Lyon asked those present to provide feedback and reflection on the evenings meeting. Those interested participating in a walkthrough of a math classroom should include their availability and area of interest on the feedback sheet as well.

The article Strands of Math Proficiencies was distributed. The article will be reviewed at the April 2, 2008 meeting.

Paul Pitchford invited committee members to attend the upcoming presentation in the Richard Andrews Lecture Series by Dr. Lee Stiff. Dr. Stiff is the co-author of a series of algebra and geometry textbooks used by Columbia Public Schools.

The meeting adjourned at 5:55 p.m.