La Center School District

Instructional Materials Recommendation
High School Mathematics
May 2009

All instructional materials were evaluated using AIM (Analyzing Instructional Materials). This process requires the use of a four part rubric (copy attached) aligned with a set of criteria which supports the national research, *How People Learn: Brain, Mind, Experience and School* and *How Students Learn Mathematics in the Classroom* published by The National Academy Press. The AIM Process is an evidence-based process for analyzing instructional materials. BSCS adapted the AIM Process from the work of the K-12 Alliance, a division of WestEd. The mission of WestEd is to promote excellence, achieve equity, and improve learning for children, youth, and adults. They are guided by knowledge from research and practice, drawing on an ever-growing and constantly refined database in development for more than four decades.

La Center first began using this process after participating in a three-year national curriculum leadership academy 2004-2006 held in Richland, WA. Considering the time and resources required to complete an alignment review, scores for the standards alignment were based on information provided by the OSPI review teams. In addition, no accuracy concerns were noted unless specifically identified by a team member. For example: One elementary text used the term "diamond" in reference to the geometric form rhombus.

La Center School District has chosen to add a component to assist in the evaluation of available materials to support students at home. In the rubric it is identified as "*Parent Communication/Support*" under the *"Work Teachers Do"*. Considering the importance of this element, it was addressed separately in the final evaluation. This is especially important since each line item has only approximately a 4% impact on the total score. Therefore teams evaluated this first individually and then jointly, considering any communications and available supports including but not limited to newsletters, accessibility of student work samples, vocabulary, textbook support, online tutorials and available additional online resources and practice.

<u>High School Recommendation</u>: *Core Plus 2*

Upon adoption, these materials will be phased in with the implementation of Courses 1 & 2 being available the fall of 2009 and all 4 levels available by 2012. Core Plus Course 1 will also be made available to qualifying 8th grade students in the fall of 2009.
(See attached flow chart)

Primary reasons for choosing *Core Plus 2:*

1. *Core Plus 2* raises the math standard from the current level. Evidence indicates these materials will increase the rigor of mathematics being taught at La Center High School.

2. Middle school students are already being required to do more. Most middle school students completing grade 8 will be beyond the level of *IMP 1*. If the high school does not increase the level of instruction for freshman, they will actually be losing ground.
3. *Core Plus 2* is the only integrated program on the OSPI recommended list.
4. *Core Plus 2* addressed some of the parent/stakeholders' concerns about the overabundance of writing and the lack of concrete examples in the currently used *IMP* materials.

High School Mathematics Instructional Materials Evaluation Results

To score concept development, one major concept taught across the 6-12 band is identified to analyze. Team members analyze the amount of new information that is introduced and the depth of the concept development. Although accessing students' prior knowledge was a key consideration in the development of the concept, an overabundance of repetition was considered a problem, especially considering the number of standards being assessed each year. For the middle school and high school, "functions" was identified as the concept. This is an area that is critical to student understanding of upper level mathematics and has been shown to create barriers for students who lack a thorough understanding.

The two tables on the following pages are organized by the title of the series. The scores are line item scores for each strand of the rubric for each grade level. Scorers were instructed to score 1, 3 or 5. In order to more accurately distinguish how well the materials met the criterion, scores of 2 or 4 were not allowed.

Although the updated version of the *Interactive Mathematics Program* was considered, a cursory review revealed no corrections to areas identified by the team as being a concern. Therefore it was eliminated without further review.

Core Plus 2

Criteria/Component	Course 1	Course 2	Course 2	Course 3
CONTENT:				
Standards Alignment	5	5	5	5
Accuracy	5	5	5	5
Concept Development	5	5	5	5
Sequencing	5	5	5	5
Context/Connections	5	5	5	5
TOTAL Content Criterion	25	25	25	25
WORK STUDENTS DO:				
Engaging Prior Knowledge/Metacognition	5	5	5	5
Problem Solving	5	5	5	5
Reasoning & Proof	5	5	5	5
Communication	3	3	5	3
Representation	5	5	5	5
Accessibility	3	3	1	3
TOTAL Work Students Do Criterion	26	26	26	26
ASSESSMENT:				
Quality	5	5	5	5
Multiple Measures	5	5	5	5
Use of Assessments	5	5	5	5
Metacognition	5	5	5	5
Accessibility	3	3	3	3
TOTAL Assessment Criterion	23	23	23	23
THE WORK TEACHERS DO:				
Instructional Model	5	5	5	5
Teaching Strategies	5	5	5	5
Support for Work Teachers Do	5	5	5	5
TOTAL Work Teachers Do Criterion	15	15	15	15
GRAND TOTAL	89	89	89	89

TOTAL Content Criterion	10.0	10.0	10.0	10.0
TOTAL Work Students Do Criterion	5.2	5.2	5.2	5.2
TOTAL Assessment Criterion	4.6	4.6	4.6	4.6
TOTAL Work Teachers Do Criterion	3.0	3.0	3.0	3.0
TOTAL	22.8	22.8	22.8	22.8

Weighted Percentage Scores	95.0	95.0	95.0	95.0

SIMMS

Criteria/Component	Course 1	Course 2	Course 3	Course 4
CONTENT:				
Standards Alignment	3	3	3	3
Accuracy	5	5	5	5
Concept Development	5	5	5	5
Sequencing	5	5	5	5
Context/Connections	5	5	5	5
TOTAL Content Criterion	23	23	23	23
WORK STUDENTS DO:				
Engaging Prior Knowledge/Metacognition	3	3	3	3
Problem Solving	3	5	5	5
Reasoning & Proof	5	3	3	5
Communication	5	5	5	5
Representation	5	3	5	5
Accessibility	5	5	5	5
TOTAL Work Students Do Criterion	26	24	26	28
ASSESSMENT:				
Quality	5	5	5	5
Multiple Measures	5	3	5	5
Use of Assessments	3	3	3	3
Metacognition	1	1	1	1
Accessibility	5	5	5	5
TOTAL Assessment Criterion	19	17	19	19
THE WORK TEACHERS DO:				
Instructional Model	3	3	3	3
Teaching Strategies	3	3	3	3
Support for Work Teachers Do	3	3	3	3
TOTAL Work Teachers Do Criterion	9	9	9	9
GRAND TOTAL	77	73	77	79

TOTAL Content Criterion	9.2	9.2	9.2	9.2
TOTAL Work Students Do Criterion	5.2	4.8	5.2	5.6
TOTAL Assessment Criterion	3.8	3.4	3.8	3.8
TOTAL Work Teachers Do Criterion	1.8	1.8	1.8	1.8
TOTAL	20.00	19.20	20.00	20.40

Weighted Percentage Score	83.3	80.0	83.3	85.0