

**OAK PARK AND RIVER FOREST HIGH SCHOOL**  
**201 North Scoville Avenue**  
**Oak Park, IL 60302**

**INSTRUCTION COMMITTEE OF THE WHOLE BOARD OF EDUCATION MEETING**  
**Tuesday, August 14, 2012**

An Instruction Committee of the Whole Board of Education meeting was held on Tuesday, August 14, 2012. Dr. Lee called the meeting to order at 6:35 p.m. in the Board Room. Committee members present were Terry Finnegan, Dr. Ralph H. Lee, Amy McCormack, John Phelan, and Sharon Patchak-Layman. Also present were Dr. Steven T. Isoye, Superintendent; Michael Carioscio, Chief Information Officer; Dr. Tina Halliman, Assistant Superintendent of Student Services; Amy Hill, Director of Assessment and Research; Philip M. Prale, Assistant Superintendent for Curriculum and Instruction; Nathaniel L. Rouse, Principal; Lauren M. Smith, Assistant Superintendent for Human Resources; Karin Sullivan, Director of Community Relations and Communications; Cheryl L. Witham, Chief Financial Officer and Treasurer; and Gail Kalmerton, Executive Assistant/Clerk of the Board.

Visitors included OPRFHS Faculty Julie Frey, Math Division Head, and Chris Baldwin, Math Teacher, Mary Jo Haley of the League of Women Voters and Alejandra Ibamz of the Oak Park and River Forest Community Foundation.

Math Program Update

A PowerPoint presentation was created by Ms. Frey, Mr. Baldwin, and Mr. Prale on the Final Exam Analysis of Algebra I and Geometry.

The math department monitored the effectiveness of the Algebra and Plane Geometry programs, by

- Creating common final exams for all students taking Algebra 1-2, Plane Geometry 1-2, and Advanced Algebra 1-2 courses
- Entered common exams into Mastery Manager
- Reviewed results from the final exams which lead to
  - an advanced understanding about student learning;
  - prompted the department to adjust its instruction; and
  - promoted the department to adjust its final exam

An example of item analysis comparison for two consecutive years was provided for Plane Geometry. The Math Department reviewed the results of the same questions that were asked on the 2010/2011 and on the 2011/12 final exams. It tracked the percentage of correct answers and compared each year's results. Changes in the scores would reflect the effect of the program, not changes in the students, since different groups of students were tested. In order to interpret this data, consideration was given as to the reasons why student scores would increase or decrease on final exam questions. Possible explanations included: quality and amount of pre-requisite information known or communicated to students, the order in which the topics were taught, time spent teaching the concepts, teaching activities connected to the topics, formative assessment strategies, clearly stated learning targets, feedback from formative assessments (this may include clearly stated learning targets, feedback from formative assessments, and teacher adjustments made as a result of formative assessment).

An example of a common problem in Geometry where students improved their performance by 18% was provided. This concept covered two different learning targets and was assessed through multiple formative assessments and multiple summative assessments. A second common problem in Geometry

was presented where students decreased their performance by 21%. This concept covered one learning target and while it was not tested through formative assessments, though it did exist on the chapter test.

It was hypothesized that students' performance on the exam may have increased due to the following:

- The learning targets are written and explicit;
- The learning targets are assessed through multiple formative assessments;
- Instruction is adjusted as a consequence of information learned through formative assessments;
- Learning activities are adjusted and become better focused on learning target; and
- Topics are re-taught when necessary.

Two examples of common problems were presented for Algebra, one where students improved their performance by 22%. This concept covered two different learning targets and was assessed through multiple formative assessments, and multiple summative assessments. Another was an example of a problem where students decreased their performance by 9%. This concept was covered in two learning targets. Part of this concept was assessed through formative assessment, part of the problem was not. The department asked if it needed to adjust its learning targets and therefore the focus of instruction.

Math faculty concluded the following:

- Clear learning targets can be used to increase student achievement on final exams.
- Frequent formative assessments can be used to increase student achievement on final exams.
- Teacher adjustment of lessons can increase student achievement on final exams.
- Re-teaching concepts throughout the year can increase student achievement on final exams.

The Math Department noted that it is working with both ACT, which gives a set of college readiness standards, and the State's standards. It constantly reviews its curriculum as to what students will need to be successful in college and in their careers. Ms. Frey suspected that ACT would align itself with the Common Core Standards, because these standards are being written by college professors. The presentation at this meeting was about where the District is assessing classroom instruction. While math may not be the ultimate career choice, its applications are used in math, STEM, technology, etc., and its application is part of the conversation.

The Math Department plans to use a computer assisted progress monitoring system this year, the STAR Math Enterprise system. These assessments include new skills-based test items, and new in-depth reports for screening, instructional planning, progress monitoring, standards benchmarking, as well as a Core Progress learning progression and Student Growth Percentile measurements. This program has been used in Oregon with a good degree of success and it is hoped that it will be successful here as well.

With regard to equity, research shows that the most interventions impact students at the lower end of spectrum or struggling in math. Research also shows that students who are tracked learn more. The District plans to offer an additional full period of support. As part of this additional period of instruction, Mr. Baldwin's team created a learning unit that looked at progressive modeling. Ms. Frey's hope is that one will not be able to tell which students have extended Algebra from those who do not.

The District is focusing on the Algebra 1 - 2, Geometry 1 - 2 and Advanced Algebra 1 - 2 programs at this time with regard to whether the same concepts are being taught in the same way so that the outcomes are uniform. Ms. Patchak-Layman hoped that as information is learned about individual students it is shared with teachers in other curriculums.

Because of the schedule of the meetings for the evening, Dr. Lee asked if there was a desire to extend the conversation. He asked if there were a motion to do so. No motion was made.

**Additional Items for Deliberation**

A calendar of future reports will be presented to the Board of Education at a future date and a presentation on a data dashboard will be scheduled.

**Adjournment**

Dr. Lee adjourned the meeting 7:02 p.m.