Memorandum

May 11, 2006

To: Jeff Petterson
From: Mark Ravlin
Re.: Conference Summary, Assessing Student Learning & Related Reflections

Thank you, Jeff, for taking time to meet with me about the Shape Groups Assessment from the 5th grade geometry unit. We used a number of tools to support our work: (1) the Unit's Curriculum Map with its Catalog of Lessons, (2) the prompts and rubric for the assessment task, (3) the Assessment Standards of the *Curriculum Framework*, (4) the information about Area 5 of the *Framework for Effective Teaching*'s, "Assessing Student Learning," and (5) the work of a dozen students on the assessment task. I would like to take this opportunity to summarize key points of our conversation.

The geometry unit includes both content and process outcomes which are addressed by this assessment: the attributes of shapes, and measurement and classification. The assessment is designed to address two outcomes.

(1) To what extent can students use information about shape attributes to accurately place a collection of familiar shapes on a Classification Tree?
(2) Can students accurately locate a new, unfamiliar shape on the Classification Tree, with written explanation of their reasoning?

Embedded in these questions are the specific tasks which the assessment asks students to complete.

The 5th grade mathematics team has a rich history of engagement – or is it struggle? – with this *Trailblazers* unit generally, and with this assessment in particular. The publisher's assessment proved unsatisfactory, in that it was not well aligned with the lessons that preceded it. The assessment asked students to complete tasks for which they were not prepared. The present Shape Groups Assessment represents the team's first experiment with an alternate assessment which is aligned with the work in the unit. Although the *Curriculum Framework*'s Assessment Standards have not been the focus of your work on this, we agreed that the Disciplinary Content and Elaborated Written Communication standards are most clearly addressed here.

Your strategies to engage students with the outcomes related to the attributes of shapes and the process of classification begins with the classification of restaurants – an approach that grounds the unit's work in students' everyday lives. You then proceeded to the classification of animals in a zoo – which is where *Trailblazers* begins the unit, before moving on to the classification of shapes. Your experience with the restaurant content to launch the unit was positive; you plan to re-use it next year.

To engage students with the expectation of writing about their thinking, you offered an interdisciplinary crossover to science. In the science context, your team has introduced specific strategies to support students in elaborating their written communication. A key example is the use of transitional phrases such as, "To begin with…," "In addition…," and "In conclusion." We observed examples of the students' use of these phrases in the student work samples.

We considered the question of what diagnostic and formative assessment evidence you had collected along the way to indicate that students were ready for the summative assessment provided by the Shape Groups tasks. The restaurant classification work provided diagnostic information that influenced how you then addressed classification in the zoo context. This work and what you then observed in the students' work study of shapes provided formative information about students' readiness for the assessment task. You observed the students struggling with the concept of parallel as you worked on shapes. The instructional activities that were needed to prepare the students for the assessment stretched beyond the *Trailblazers* estimate by a couple of days.

From the assessment task, you learned that the students are able to recreate satisfactory classification performance from a prior lesson. The students' responses to the writing prompt provided some indication of the depth of their understanding, but in the end you are concerned that the core task of classification was insufficiently challenging. Student self-assessment has not yet been provided for in the geometry unit. Looking ahead to next year, you would consider some form of meta-cognitive task which would cause the students to engage in self-assessment through reflection on their thinking and elaboration of their writing. I would urge you and the team to include some indication of this in the Catalog of Lessons.

Finally, we agreed on a time to study student work from this assessment.

Thank you once again for taking part in this conversation with me. I appreciate the thoughtfulness of your reflections on your work. I also appreciate the continuing commitment that you demonstrate to improving the geometry unit based on the experience that you have with your students. The quality of your meta-cognitive work sets a high standard for what you will expect of students as you approach this unit improvement next year.