Reflection on 6th grade public research lesson on May 19, 2005 at the St. Josaphat School

In planning the lesson on scaled drawings, there were several things that we wanted to incorporate. Earlier in the unit, the students had been introduced to the difference between fractional relationships and proportional relationships. They had also been introduced to ways of expressing proportional relationships. One main goal was that the students would apply their understanding of proportional relationships to a scaled drawing. They would recognize the proportional relationship of the drawing to the actual room. During the lesson itself, it was difficult to see if students truly understood this relationship, in part due to some factors that I will describe later. However, in subsequent lessons, students were able to recognize the proportional relationship between a scaled drawing and the real object and express that relationship in a proportion.

During the debriefing, some excellent points were made to improve the lesson. Some of the questions raised during the debriefing included:

> Because the scale was 5 inches to 2 feet, students could also use 1 cm to 1 foot. Was the scale appropriate?
> The work the students posted did not show the students' thinking, but just answered the yes or no question. Could the question be reworded so that students would more clearly express their ideas on the work that was posted.
> Did the students need more of an introduction or warm-up to the lesson?

Scale

There is some discussion among the planners of this lesson as to whether the scale used was appropriate or not. One of the teachers who planned the lesson felt that it was okay for students to find that 1 cm on the drawing represented 1 foot in the room. This allowed students who may have struggled with the calculations or the expression of the proportional relationship.

On the other hand, it seems that using a scale that could not be simplified to 1:1 would have been a much better idea. It would have allowed observers to follow students' thinking. More to the point, it would have forced students to use a mathematical expression to solve for the missing dimensions. Plus, it would have been easier for the teacher to understand how students were relating the scaled drawing to the actual room and check for any erroneous thinking.

Posing Problem

Because the posing problem was worded with a question that asked for a "yes" or "no" answer, most of the groups had merely a complete sentence answer for their work. Instead of asking a yes or no question, the lesson could be improved with a question that asked students to include the dimension of the room in their explanation.

Introduction/Warm-Up

Because I was concerned about leading the students too much into one way to solve the problem, the warm-up activity was very brief. However, after reflecting on the lesson, it may have been helpful to talk about the blueprint of the church in more detail. Still, I do not

think I would have had students find missing dimensions, but I do think the warm-up could have included the students writing a proportion to show the relationship between the drawing and the actual church.

In conclusion, I would recommend using this lesson, with the improvements mentioned above, as part of the unit we constructed. The unit is a good introduction to proportionality for fifth grade students because it gives students an opportunity to explore the concept of proportionality. And, as I learned as I taught this unit, the concept of proportionality does not necessarily come naturally to students.