

## Study Guide Questions - Day Four

### Planning

1. Describe the issues the teacher considered in planning for whole class discussion. [Day 3 journal, Class Organization - #23]
2. In light of these last four days, what lessons would you plan next for this group of students?
3. If you were to teach this lesson sequence in an 8th grade classroom, in what lessons would you engage the students before this sequence?
4. The teacher openly discussed the problems she encountered with assigning homework in the previous class periods. How did she go about ensuring that it would not happen again? [Day 4 journal, Anticipating Student Understanding - #33]
5. What do you believe are the significant issues that need to be addressed during the planning stage of a lesson?

### Facilitating

1. When the students contributed to the class discussion on weighting the murder rate, what learning was taking place? Were all the students engaged? What could the teacher have done to allow for more diverse student participation? [Click on Day 4 class, Content-Systems for Data Analysis - #89, and Day 4 class, Student Understanding - #90]
2. View these two clips where the teacher questioned the students. Describe what the teacher accomplished with each of these questions. Find two other examples of questioning and explain whether or not the teacher encouraged the students to extend their thinking. [Click on Day 4 class, Student Understanding-Weighted Ranks #87, and Day 4 class, Student Understanding - #90]
3. Did the teacher create a risk-taking class environment? If so, how? If not, what prevented this from happening?

### Student Thinking

1. Aleyna had difficulty understanding the difference between how weighting numbers before getting a value, as opposed to weighting a value, changes the ranked order. Do you feel she understood this concept by the end of class? What are some of the ways the teacher could have addressed this issue at the time it occurred? What would you have done and why? [Click on Day 4 class, Student Understanding - #90]
2. Throughout this lesson there were varying degrees of confusion and understanding of weighting ranks. How would you build on the students' thinking to plan the next lesson? [Click

on Day 4 class, Student Understanding-Weighted Ranks- #88, Day 4 class, Content-Systems for Data Analysis - #89, and Day 4 class, Student Understanding - #90]

3. The teacher discusses the dilemma of having her own agendas to get across to the students versus the students' agenda (raising their own issues). How did the teacher work through this conflict? How would you go about resolving this dilemma? [Click on Day 4 journal, Student Understanding - #35, #36]

### **Mathematical Content & Context**

1. (a) Look at what occurred in class as the students were developing weighted systems in this day's lesson. Describe the confusion that occurred for the students. Why do you think this confusion occurred? (b) Look at the teacher's reflection on that discussion. In the teacher's view, did the students understand the issue by the end of class? (c) Develop two mathematical examples that illustrate the difference in the two concepts that arose today. [Click on Day 4 class, Student Understanding - #90, and on Day 4 journal, Student Understanding - #36]

2. Describe the teacher's reaction to Gianni's system in this first clip. Then analyze her reflection pertaining to this issue. In retrospect, what would she have done differently? [Click on Day 4 class, Student Understanding-Weighted Ranks #87, and Day 4 journal Student Understanding-Systems for Data Analysis #39]

3. Describe the context of the problem that the teacher used to introduce the issue of weighted ranks. What impact did the context have on student engagement? Why do you think the teacher chose to use extreme values in the problem and do you think it was effective? [Click on Day 4 class, Student Understanding-Weighted Ranks #87, and Day 4 journal, Student Understanding-Weighted Ranks #40]

4. What other contexts could you use to introduce the issue of weighted ranks? Develop an example and describe how you would use it.

5. How would you assess the students' ability to symbolize their systems? Do you feel the teacher's goal was accomplished? [Click on Day 4 journal, Student Understanding-Symbolization #37]