

Part III: Data Analysis/Interpretation

I collected data on a second grade class of 18 students at Galway Elementary School.

There are 8 girls and 10 boys in the class. The majority of the children are African American, but there is also one White student, one Asian student, and one Lebanese student.

I used data collected was from math assessment quizzes of the first unit in mathematics.

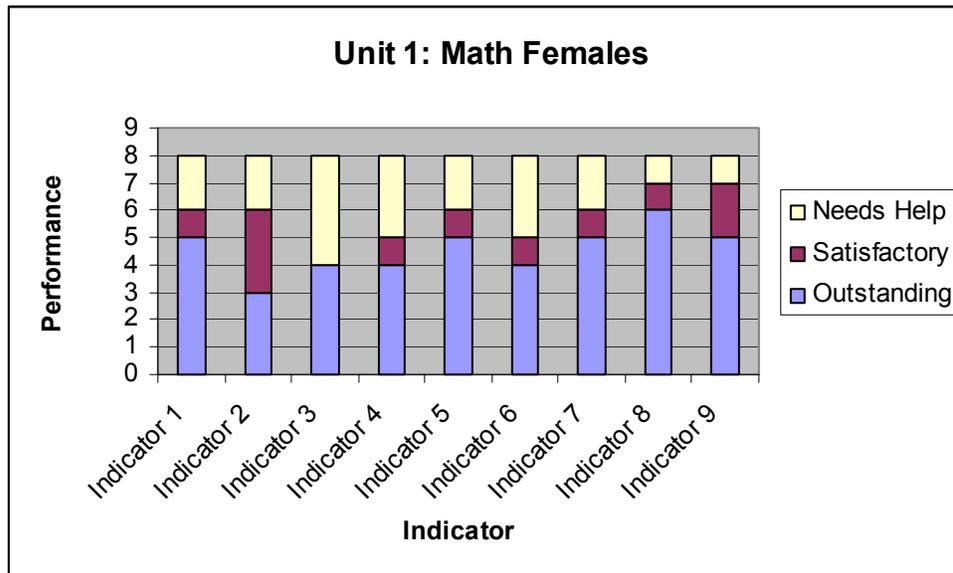
The math quizzes tested the students' knowledge on different Maryland State Department of Education (MSDE) indicators of number relationships, computation, and statistics.

There was a different quiz for each indicator in these areas, and there were two problems per each quiz. If a child got both right, they received an "O", if they got one correct they received an "S", and if they got none correct they received an "N". Some of the indicators that were quizzed were: model multi-digit numbers, read and write words that represent numbers less than 1000, express two- and three- digit numbers in expanded notation form, identify missing numbers in a sequence of 100, identify and use 10 more and 10 less, generalize ways to determine odd or even, describe numbers as even or odd, gather and organize data from surveys and class experiments, and organize and display data in more than one way.

Once I entered all the data into an Excel spreadsheet ("Class Data"), I decided to create another spreadsheet to highlight all the "Needs Help" spots. I noticed that many most of the "N's" were from girls, so I decided to create two new spreadsheets to separate males and females so I could see the data closer for each group. Then to create my graphs I decided to calculate the number of students who got "O's", "S's" and "N's" for each

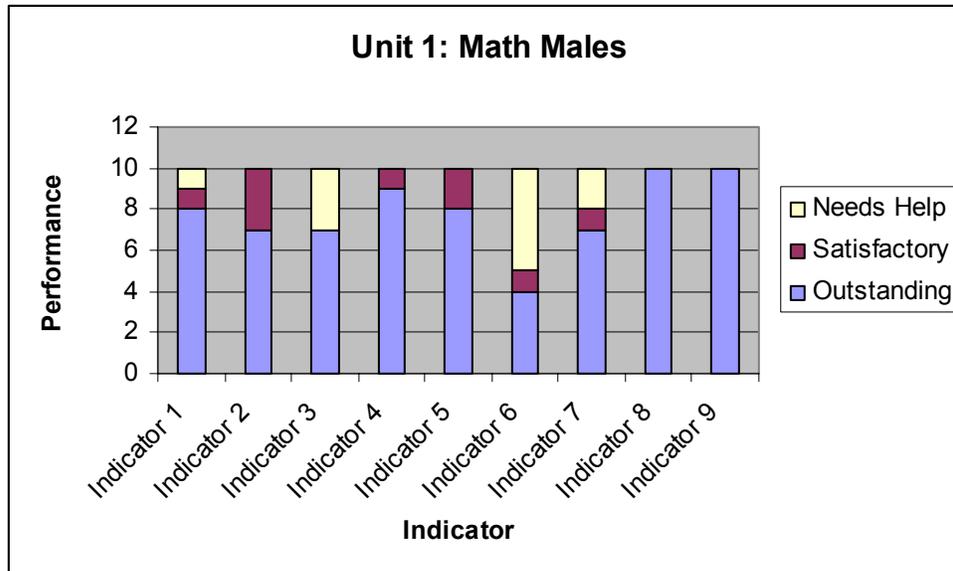
indicator. I made one graph for the males and one for the females so I could compare these two groups easier. I created two stacked column bar graphs to show the data for each indicator. I found that it was mostly females who were having difficulty in math compared to the males in the class. On every single indicator, one female or more received an “N”, yet there were only four indicators that the males received at least one “N”. There were two indicators that the males all received “O’s” on, which was very impressive.

Figure 1: Unit 1 Math Performance of Females



Source: Class Data from Galway Elementary School

Figure 2: Unit 1 Math Performance of Males



Source: Class Data from Galway Elementary School

Factors that may have contributed to the females performing so much lower than the males may be that of the girls, one has parents who just went through a separation and she may be having emotional problems and another girl is seeing an ESOL teacher and is still learning the language. Of the eight girls, half of them are having real difficulties in math. None of the males are really struggling with the subject and only one male is seeing an ESOL teacher, yet he is still good at math despite the language barrier. This boy is receiving a lot of support at home, and I am not sure how much support the girls are receiving.

Implications of these data findings for lesson development is that one, the teacher needs to focus on helping the girls more and making sure they are up to speed. The teacher may need to pull the group of girls who are having the most problems into a smaller group and spend more time teaching these students while the rest of the class works more independently. The teacher could also seat each girl that is struggling, with a girl who is

doing well so they can receive help from their peers. The teacher may even want to look into a counselor for the girl whose parents recently separated to make sure she is okay and to help her cope with what is going on in her life outside of school. There should also be more communication with the ESOL teacher to make sure the ESOL students are making gains in learning English.