

Multidisciplinary

participating in her multimedia project, titled “The ABCs of Mathematics.” Through this year-long partner project, her students used PowerPoint to create a slide for each letter of the alphabet, defining in their own words algebraic terms, constructing appropriate types of graphs, and designing appropriate questions and answers. The teacher also noticed that through participation in this project, her students turned into “little teachers,” as they frequently took time to explain a term to a classmate who was struggling with a topic.

Another elementary teacher commented that she noticed her students’ motivation increased while they were participating in a multimedia project titled “All about Me.” In this project, her students created a slide show highlighting their likes and dislikes and included digital images and a video clip.

Knowing the qualities of what makes a good multimedia project will help you to develop ones that motivate and engage your students. When you have a project idea, evaluate it based on these seven key dimensions to see if it follows these guidelines or if it could be improved in some way. As your students begin their projects, keep your eyes and ears open, and you just might see some magic happening right in your classroom!

Donna Dick is an educational technology specialist with the Northwest Ohio Educational Technology Foundation. She also has adjunct faculty status with Bowling Green University, and has taught several graduate-level courses with an emphasis on technology integration.

Jennifer Lindeman is a mathematics teacher at Ridgedale Junior/Senior High School in Morral, Ohio. She holds a bachelor of science in adolescent/young adult and integrated mathematics from the University of Findlay and is currently working on her master’s in classroom technology at Bowling Green State University.

Encouraging Graphing with Sports

As I work with teachers to lead and assist in the computer lab with students, I have found that spreadsheet programs—specifically Excel—are one of the toughest programs to get teachers to use, not only with students, but also on their own. It is hard for many teachers to get past the mindset that using a spreadsheet is going to mean using and understanding formulas.

With March Madness here in basketball-crazy New Castle, Indiana, I found a great way to get students, and even teachers, interested in using Excel and creating a graph. For many teachers, it was their first experience using a spreadsheet program, and it has helped them to see that spreadsheets have many uses and can be adapted to fit many topics.

Our high school boys’ basketball team won the Class 3A State Championship on March 25, 2006. The previous weekend, New Castle had won the Semi-State Championship. I thought this was a perfect opportunity to generate some enthusiasm for spreadsheets.

I targeted a few of our third grade classes to introduce this lesson. When introducing Excel to students, I always ask how many know how to play the game Battleship, and nearly all hands go up. I explain to them that spreadsheets use the same layout when working with cells. For the students who are not familiar with Battleship, I explain by showing the students how the spreadsheet is really a grid and each cell is a location. Clicking on a cell highlights the column and row indicators. Then, when asked to identify which cell I was on, all students could name the cell location.

I listed the names of the boys who scored in that Semi-State game along with their number of points scored. The students created a very simple spreadsheet with this information.

Then we were ready to create a chart. Explaining how to highlight and select by drag and drop didn’t present as much of a problem as I had expected. Once they understood that in Excel you must have the “big white plus sign” before you can drag, the students had no problems in selecting their range of cells.

Using the Chart Wizard in Excel, students created a bar graph. I then showed students how to color the individual columns and backgrounds, and change to different types of charts. Many of the students were already familiar with using fill colors and fill effects from PowerPoint projects that they had worked on, so there were a lot of creative charts. And there were a lot of variations of kelly green and white, the New Castle school colors.

After the classroom teachers saw how quickly the students understood how to use Excel in this simple form, the teachers quickly thought of other uses—having students create a spreadsheet and graph of math and reading scores, results of measuring kilograms of classroom items, creating surveys, and charting weather and temperatures.

And that included, of course, creating a new spreadsheet and graph with the points scored by our state champs! Not only did the students learn that graphs could be fun, they learned that using spreadsheets and creating graphs is not limited to formulas. It is a great way to show a visual representation of the many types of data collected and make an easier comparison of the information. Students also learned that the same data can be presented in different ways to highlight a different viewpoint.

—Theresa J. Pierce, Technology Associate & M.O.S. Master Instructor, New Castle Community School Corporation, Technology Center, New Castle, Indiana

Mathematics