

I. What do we want to learn from this lesson? (*Research Lesson Goals for Teachers*)

Teachers want to learn how to use technology as a tool to enhance content curriculum.

II. The overarching Lesson Study goals are:

1. To use technology as a tool to organize data into a meaningful result
2. To enhance students confidence in their ability to learn and use technology

Steps of Research Lesson	Students	Teacher	Evidence of student learning/engagement	Observer’s Comments: Things to think about for next time
<p>Building a context for the lesson <i>(Connecting to meaningful things or previous lesson)</i> Students have gathered data about each other in the following categories: gender, feeder school, birth place, children (in family), birth order, subject, travel, pets, soft drink, candy bar, food, hobby, and career choice. Students have been asked to think about how they can present this data in a meaningful context.</p>	<p>Doing: Listening/Some are writing</p>	<p>Doing: “We have all this data. Let’s do something with it.” “Let’s compile and publish our data”</p>	<p>Students are listening and not playing with the computers at this time.</p>	<p>Review for students who were absent</p>
	<p>Possible Questions or Misconceptions:</p>	<p>Possible Responses/ Questions to Pose:</p>		
<p>Laying the framework for the learning experience <i>(Launching the activity)</i></p>	<p>Doing: Listening Turning on computers</p>	<p>Doing: Direct students to the handout-explaining steps of lesson and expected outcomes, sample work, and rubric</p>	<p>Listening Opening rows On task at computers</p>	
	<p>Possible Questions or Misconceptions: How is this being evaluated?</p>	<p>Possible Responses/ Questions to Pose:</p>		

<p>Engaging students with concepts <i>(Exploring, investigating, problem solving)</i> The lesson is broken into 3 steps. Between each step students must turn off their monitors. 1st. Open to Excel Saving to Excel Enter Data (20-30 minutes)</p> <p>2nd Show how to highlight columns using control (5-10 minutes of explanation)</p> <p>3rd Making the graph and looking at it to see if it is accurate. Does the graph make sense? Students with the same data will compare.</p>	<p>Doing: Reading handout, asking for help, opening rows for data input</p>	<p>Doing : Monitoring Walking around Teacher says, "Turn off computer screen." "Its all been easy up to now." Direct students to the handout and review the steps on the big screen. "Now you're ready to go to the chart wizard."</p>	<p>Inputting</p> <p>Using handouts</p> <p>Peer problem solving</p> <p>Listening</p>	<p>Make sure students are not sitting with their hands raised for questions for long periods. Breaking the lesson into the 3 steps with short periods of big screen instruction will help answer many student questions.</p>
	<p>Possible Questions or Misconceptions: What do I need to highlight for my graph?</p> <p>Students are having trouble highlighting row titles.</p> <p>"How do I use the formulas?"</p>	<p>Possible Responses to student questions and/or strategies:</p> <p>Some students may want to use the formulas, so the teacher will show individual students how to use the formulas. Most students will input information from spreadsheets.</p>		
<p>Sharing ideas/solutions <i>(Whole group, small group, written)</i> Pair and share (Peer edit and review) Students will check and compare their graphs with others with the same information to see that their math is accurate.</p>	<p>Doing: Talking/Sharing with neighbor</p>	<p>Doing: Monitoring Walking around</p>	<p>Using handout</p> <p>Peer problem solving</p>	
	<p>Possible Questions or Misconceptions:</p>	<p>Possible Responses to student questions and/or strategies:</p>		
<p>Closure/Summarizing <i>(Tying ideas together – summarize what math/strategies were learned)</i> "Earlier in the unit, we have collected data. and</p>	<p>Doing: Peer review Teacher Review Printing</p>	<p>Doing: Reviewing 3 steps of lesson: 1. We opened the program and set up the rows. 2. We input out data. 3. We created and printed our graphs for display.</p>	<p>Saving work to discs Printing Properly closing program Hand in discs and printed graph</p>	

<p>have collected data, and now we have used the Excel Program to graphically present our information in a more understandable way.” “We can use the Excel software to make graphs for science, social studies, language arts, or any subject that we need to graphically represent information.”</p>	Possible Questions or Misconceptions:	Possible Responses/ Questions to Pose:		
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