Bellwork as a Strategy to Increase Student's Ability to Analyze Graph and Chart Data

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Bellwork can be used to accomplish many goals such as getting students working with the bell, or reviewing the previous day's lesson. This project uses the first few minutes of class to teach graph reading skills to increase a student's success on the ACT Science test.

**Research Question - Could bellwork be used to increase graph literacy?**
- Question 1: How does bellwork influence student graph reading and data analysis skills?
- Question 2: How does bellwork that uses a step-by-step approach influence student resiliency on problem solving tasks?
- Question 3: How does bellwork influence student confidence in regards to their graphing and data analysis skills?

**Pre and Post Test Data**

![Graph showing ACT Science Scores]

**Survey Data Results**

![Graph showing Experimental Group Pre and Post-Survey Responses]

**Student Discussion Results**

"I can read the graphs easier than I can read the passages."

"Not reading passages I answered more questions"

**Conclusion**

- Scores increased 5%
- Number of questions answered increased 11%
- Confidence increased
- Resiliency increased