Data Visualization Best Practices Workshop Teacher Report

Name: Don Lurgio

Area(s) of Teaching: Chemistry Biology

Where You Teach:

East Providence High School

Please describe your activity goal:

The goal of this activity is to provide students with an opportunity to look critically at 2 data sets presented in 4 different formats; a table, a bar graph, a line graph and a pie chart and have them make a claim with evidence and reasoning as to which format was easier for them to visualize the data presented.

What is the intended visualization?

The intended visualization is that students will determine that the line graph best represents the data in a format that allows the reader to compare the 2 sets of data (pH surface water vs pH of bottom water) most easily and effectively.

Please provide the activity wordings presented to the students:

Below is a data set of pH levels taken at the North Prudence Island buoy in the upper Narragansett Bay. The data compares pH levels of water at the surface and at the bottom. A table of the pH reading over a 10 day period are presented below:

Which of the graphs below BEST helps you to visualize and understand the data that is being presented? CER

Please describe the nature of the activity (e.g. In class activity? Homework? Something else) and the rationale behind your choice.

This document could be used in any number of different ways, I would primarily think about this as a **Formative Assessment** where I would be assessing a students response to the prompt as evidence to students level of understanding and adjust my instruction as needed.

Were students engaged?:
 NA

What is/are the dataset(s) that will be used for the activity? How students will access the dataset(s)?

The data sets came from Simple Charts RI. It is a 10 set of pH measurements from the North Prudence Buoy in Narragansett Bay. It includes pH measurements from the surface and the bottom. The data sets are contained in the document for students to analyze.

What tool(s) are students going to use? How will students have access to the tool(s)?

Students will use their Chromebooks. The document will be posted on my Google Classroom page.

How you are going to grade the activity? (e.g. Rubric)

Student responses will be in the format of a CER paragraph (Claim Evidence Reasoning) and be scored using a rubric (see attached)

Do you think you will keep incorporating data visualization in the future?

Yes, most definitely. I feel that it is vital that our students feel part of the scientific process or at least feel what it's like to be. Doing science involves analyzing data, making claims based on evidence derived from data and observation. We should want our students to look for evidence from a claim as naturally as the look both ways before they cross a street.