



## How to Use the Highlight Comments and Caption Strategy

**NOTE:** A link to the student version of this “How To” can be found in the student edition at point of use. It can also be found in the Student Resources menu at the top of the screen.

Graphs, tables, charts, and diagrams are not always easy for students to interpret. In many cases, students are overwhelmed by the amount of information in these visuals. As a result, they either select only the most significant observation from the visual or they select even insignificant information. Explicit strategies to help students interpret graphs, figures, charts, and other visuals broaden their scientific literacy. Highlight comments and caption represent an effective strategy to help students make sense of information.

To use the strategy, students interpret information from graphs and charts by first answering a highlight question, “What do I see?” They should draw an arrow to any change, trend, or difference that they see and write a brief phrase to describe the observation. This should be done on the graph, figure, or chart. By doing just observations to begin, students learn to break down the visual into smaller pieces of information. Then, for each What I See observation, students answer the highlight question, “What does it mean?” The phrases they write to answer these two questions are their *highlight comments*. By having the comments near the information they are interpreting, students make physical and conceptual connections between graphical information and interpretation (Sweller, 1988). They accomplish this by linking highlight comments to graphical information, thus building cause-and-effect relationships. Furthermore, students are able to confirm the observations they made as important because they will not be able to assign meaning to insignificant data.

From the highlight comments, students should then be able to write a *caption* for the visual. A caption should be written under the graph, chart, or diagram students are interpreting. The caption helps students assemble highlight comments into a coherent, short paragraph that explains what is important in the figure. In effect, the combination of highlight comments and caption is the opposite of T-tables. That is, with T-tables, students reconfigure what they know from text into organized structures or tables; with highlight comments and caption, students generate meaning by shifting from dimensional structures (graphs, charts, and tables) to text. The built-in, back-and-forth process between these various strategies makes for more literate, intellectually flexible students. Although some students may feel that writing a caption is redundant, the value of putting the highlight comments together into a coherent paragraph increases their ability to communicate clearly and effectively.

When you first begin using this strategy with your students, you should model the strategy with them. Begin by reviewing figure 1 in the student version of this How To with the class. This figure shows students how to construct highlight comments and caption in a step-by-step manner. You might then do a think-aloud as you go through another graph or figure with the class. Once students begin working on their own, you might have them complete only the What I See and What It Means comments on the graphs or figures. As students become more proficient at identifying the important information in a visual and assigning meaning to those observations, you can add writing a caption to their work.

### Reference

Sweller, J. (1988). Cognitive load during problem solving: Effects on learning. *Cognition and Instruction*, 12, 258–285.