The Impact of Peer Review Strategies on Student Constructed Scientific Arguments

Introduction and Background
- Evergreen Park Community High School is located in a diverse community just outside the southern border of Chicago.
- Peer Review strategies were incorporated into each day of a ten day treatment unit on a block schedule.
- Students provided feedback on student designed experiments and student evaluations of premade experiments.

Research Focus Questions
1. What impact do peer review strategies have on students’ abilities to construct arguments based on the claim evidence reasoning framework?
2. What impact does integration of peer review strategies have on student perceptions of the value of peer review?
3. What impact does integration of peer review strategies have on selecting precise dependent variables?
4. What impact does integration of peer review strategies have on student perception of their own ability to provide meaningful feedback?

Student Assessment Items

Analysis:
A greater number of students were able to identify problematic aspects of a fictional experiment after engaging in peer and self review strategies.

Student Work

Figure 1: Student responses to Experimental Design Evaluation Exit Slip

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Figure 2: Experimental Design Evaluation Exit Slip

Figure 3: Student group response to question. What makes a tick a tick?