

Purpose

After numerous years of teaching, I have noticed that students have become less interested in science and science-related careers. This is evidenced by lack of work completion, low class participation, and minimal enthusiasm for learning. Why is this happening? According to a study completed by Hulleman and Harackiewicz (2009), it was discovered that when students make a connection between their everyday lives and what they are learning in the classroom, they are more likely to become interested in science, and their grade in the class will increase. By having students read and interact with current science events articles, I hoped to make science more relevant for my students and increase their interest in the subject and related careers.

Research Questions

Primary Question

How does using current science events in an 8th grade classroom impact students' interest in science?

Sub-Question 1

What is the relationship between a student's interest in science and their academic achievement?

Sub-Question 2

How can using current events make students more aware of science-related careers?

Sub-Question 3

How will using current events in the classroom impact my teaching?

Sample

This study was conducted using six sections of an 8th grade science classroom (N=85). There was a range of 14 – 24 students per class. Of the 85 students, there were:

- 44 males and 41 females,
- 20 students qualifying for free and reduced lunch services,
- 6 students receiving special education services,
- 25 students in advanced math (high school algebra), and
- 76 student who were white/Caucasian.

Treatment

- The treatment took place during the months of October, November, and December, 2018.
- Treatment included:
 - Students read 2 current science articles per week.
 - Students wrote a summary and critique of 1 article.
 - Students took notes and wrote an explanation explaining why they chose the article.
- After treatment:
 - Students looked for themes in their choice of articles.
 - Based on their themes, students choose a science career and completed a report on that career.
 - If no theme was present, students choose a career based on their favorite article and completed a report.
 - Students presented reports to the class.



Figure 1. Student's Draw a Scientist Test (DAST) drawing pre-treatment on the left with six indicators of eight and post-treatment on the right showing two indicators. The more indicators, the less likely a student can visualize his/herself as a scientist.

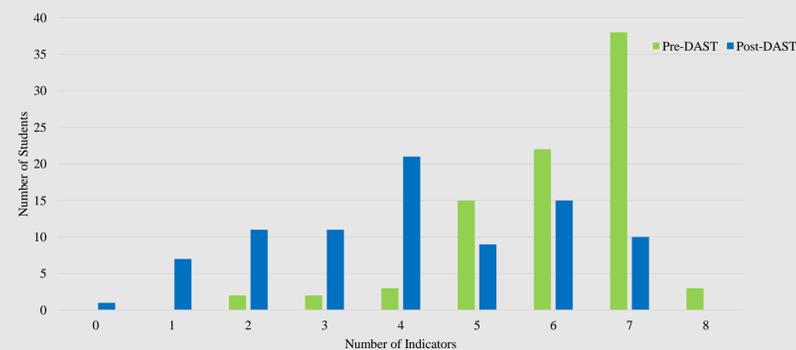


Figure 2. Number of students and number of indicators drawn by students on DAST, pre- and post-treatment, (N=85).

Data

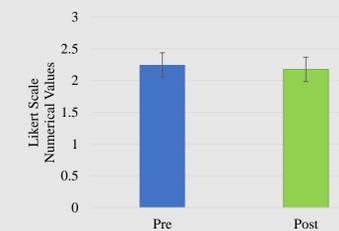


Figure 3. Mean pre- and post-treatment interest survey values, theme of interest in science, ± 95% confidence interval, (N=85).

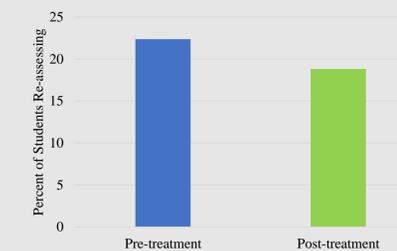


Figure 4. Percent of students required to re-assess pre- and post-treatment, theme of academic achievement, (N=85).

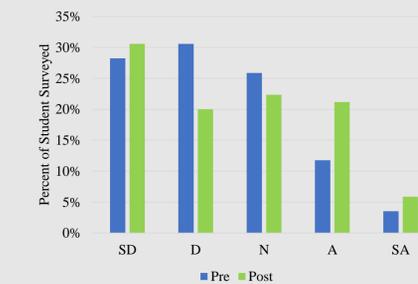


Figure 5. Percent of students in each level of agreement with interest survey statement, "I can see myself as a scientist," pre- and post-treatment, (N=85) *Note: SD=strongly disagree, D=disagree, N=neutral, A=agree, SA=strongly agree

Student Quotes

- ❖ "I always knew in the back of my mind that scientists were more than just like in a lab, but I never realized how vast the outside world with science in it was until I started reading up on things."
- ❖ "The article also kind of interested me into a career."
- ❖ "I didn't know those [veterinarians] were scientists until after I had done research on them."
- ❖ "I think they are fun to read. They relate to what's going on in the world. And, they are also about science, so that's good."

Analysis and Conclusion

- Quantitative data indicated there was not significant increase in student interest in science, academic performance, or science career interest.
- Qualitative data from student interviews found that students enjoyed reading the articles and became more aware of careers in the science field.

Value

Although the quantitative data showed little improvement or growth in any of my research questions, next year I will continue to have students read current science articles. The gains in science literacy, real world science knowledge, and science-related careers are important enough to continue the treatment. One student summed up the assignments as saying, "It [reading the articles] helps me to understand the world that I live in a little bit more. I can relate to the things around me." As the students made connections with the world around them, I made connections with the students.