

Contextually Connecting Careers in the Classroom

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Introduction:

During my three summers at Arizona Public Service (APS), I have observed and interacted with groups working together to solve problems. By assigning collaborative projects that involve 21st century skills like those they will eventually interact with in the workplace, students are more likely to see the value in what they are doing in the classroom. I have had the opportunity to work with many different departments at APS. I was able to tour new solar plants, attend and help create trainings based on employee data, forecast customer service calling trends, and survey land around Arizona. Highlighting careers that I have interacted with at APS helps students understand the wide array of jobs available to them in the future which helps them see value in what they are doing today.

The purpose of my project was to help my students see the value in learning math by using career-centered contextual problem solving and projects. I developed strategies to motivate my students to learn math. I emphasized group work and 21st century skills during different unit projects. I collected data during the whole year from a pre-algebra class of 26 students. Data included surveys, interviews, reflections and student grades.

Findings:

Engaging students in career-centered projects and career context problem solving increased their knowledge of 21st century skills, how those skills relate to their future careers, and their knowledge of specifically STEM related careers. Overall, students learned to find more value in learning mathematics because they understood math class would help them with their career someday.

Plan of Action:

Since less than 20% of students nationally are choosing a path in STEM (“STEM Education & Workforce,” 2014), in the future I want to do more to highlight different STEM careers that are available to my students. My research showed that students value their learning more when they can relate it to the future. I have met with employees from many departments at APS to create documents which can be shared with students to describe the employee’s typical day and what they enjoyed doing during middle school. This will hopefully create a meaningful connection for the future for my students.

STEM Education & Workforce. (2014, January 13). Retrieved from

<https://www.nms.org/Portals/0/Docs/STEM%20Crisis%20Page%20Stats%20and%20References.pdf>.

Framework for 21st Century Learning. (2015, May). Retrieved from <http://www.p21.org/our-work/p21-framework>.