IN AN AGE OF ELECTRONIC DISTRACTIONS, EDUCATORS ARE CONTINUOUSLY STRUGGLING TO KEEP students engaged in their classrooms amidst competing distractions. Career and technical education (CTE) classrooms are not exempt from this dilemma. Although a large component of most CTE classrooms is kinesthetic, hands-on learning in a lab environment, there is also the fundamental, theoretical component that needs to be taught as well.

As a CTE teacher, I have been attempting to bring down the walls of the traditional classroom, with intentions to not only compete with but also beat those electronic distractions. Determining the best way to achieve traditional classroom demolition and attainment of higher student engagement would involve action-based research.

Action-based Research: The Lesson

Action-based research is a type of research completed by a person, often a teacher, who has a desire to positively transform
Let’s face it, teachers can get just as bored with the material and delivery methodology as students. I challenged myself to wake up my sleeping, unengaged students and make my classroom the new distraction and not their electronic devices.

The Action Plan
I began to pull ideas from well-known methodologies I was most familiar with, such as quantitative or qualitative research. Neither one would afford me the opportunity to get involved as closely as I preferred, but then I remembered a lesson about action-based research from a professor. It was the perfect research methodology to meet my personal challenge!

I started brainstorming ideas for the student-centered classroom I wanted to create, and began generating engaging and exciting lessons to achieve those goals. Creating the new environment was going to be relatively easy, but measuring levels of student engagement and enjoyment to ensure validity and reliability would be the challenge. This is when I decided I would need to create my own instruments to monitor and measure the outcomes of my study.

Data Collection
Tools used in action-based research are often the same ones used in the more common research methodologies, i.e., surveys, interviews, journals, case studies, checklists, observations and existing data (Hendricks, 2012; Herr & Anderson, 2015). While many of these
tools are components of other research methodologies, in action-based research, the researcher, also a participant, is able to design, utilize and analyze his or her tools—ultimately creating a more personal connection with the findings of the study (Herr & Anderson, 2015). Another benefit is the tools can be designed to specifically align with the content the teacher wishes to teach (Sagor, 2011).

Tools of the Trade
For my study, there were four main areas I wanted to focus on with data collection: student perceptions, student engagement, personal performance and academic success. To gather student perceptions, I created digital surveys with qualitative and quantitative questions using Google docs. This allowed me to electronically send the surveys to all my students, and it allowed the students to provide honest, anonymous feedback. It is important to protect the anonymity of students to elicit honest responses. The responses were then compiled in a spreadsheet so that I could view them in an organized format.

To collect levels of student engagement and evaluate my own performance, I created two simple journals. Each journal asked different questions: one focusing on student engagement and the other on personal performance. I answered the same questions during non-lab classroom days for 16 weeks. Along with the student engagement survey, I created a Likert scale which allowed me to assign levels of engagement to each student, each month of the study. The Likert scale provided individual student data, as well as overall class engagement data.

Lastly, to collect data on student academic success, I developed a pre-test administered at the beginning of the semester to create a baseline of performance. At the end of the semester I administered a post-test, which allowed me to compare the student results after participating in the study for 16 weeks. To provide further validity and reliability to the study, I used the same tools utilized in a traditional classroom without student-centered learning, and compared the results.

Drawing Conclusions
Before I participated in my own action-based research and study, I thought I was doing well: that I knew the levels of student engagement in my classes, or lack thereof, and that I had a firm grasp of which lessons were effective or ineffective. However, forcing myself through this journey of personal discovery revealed meaningful data. The most significant personal benefit to participating in my own action-based research and study was learning about my teaching methodology: that my innovative attempts had not gone unnoticed and were well-received by the students. Although difficult to acknowledge, there were negative student perceptions about a few teaching methodologies I had been using for many years. Outwardly, students seemed to enjoy them, but when given the chance for honest anonymous feedback, I was able to learn their true perception of my activities.

Additionally, the study revealed student benefits, such as engagement and academic performance, do increase in a student-centered classroom, compared to a teacher-centered classroom. The results from my study cannot be considered “significant” in scientific terms and cannot be generalized to all CTE programs. However, experiencing increases in positivity, engagement, excitement and academic success in my classrooms was significant to me. Gaining self-awareness about my teaching methodologies was priceless.

While I’ve always been a passionate and innovative teacher, I have never had the courage to completely demolish those traditional classroom walls in favor of big change. I will say that conducting my own

“I continue to challenge myself to be a better educator, which simultaneously challenges my students to do more critical thinking and take more ownership in their education. Students will notice the time and effort you put into this new classroom environment and will thank you for your efforts.”
action-based research and study has been one of the most effective pieces of professional development I have ever had, aside from my graduate and doctoral education. I continue to challenge myself to be a better educator, which simultaneously challenges my students to do more critical thinking and take more ownership in their education. Students will notice the time and effort you put into this new classroom environment and will thank you for your efforts.

I am glad I participated in my own action-based research and study: I became a better teacher for it. Tech

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REFERENCES


