SPARKing Technology in the CTE Classroom

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Introduction/Need for Innovation

In a virtual learning environment, student engagement and motivation can be a challenge to initiate and maintain. Digital competence (known as DigComp) is known to be one of the eight competences for lifelong learning needed by individuals for personal and professional pursuits (Ramsak, 2020). Using various instructional strategies and incorporating technology into instruction are needed to increase student engagement and achievement and promote creativity in the classroom (Burns, 2018). However, Coley et al. (2015) concluded that agriculture teachers are slow to adopt and incorporate technologies into the classroom.

To integrate and encourage technology usage among (course) students at NC State University, students created a digital project explaining important legislation impacting CTE through Adobe Spark. Students in the course were primarily in the teacher preparation degree program and this assignment exposed them to new sources of technology that they can develop skills in using and incorporate into future lesson plans and instructional approaches (Williams et al., 2014).

How It Works

Following a general lesson on the role legislation has played in CTE, students completed a digital project using Adobe Spark. Students were assigned legislations that impacted Career and Technical Education throughout history and created the digital project with their assigned piece of legislation(s). Students were provided with a rubric evaluating the following categories: Demonstration of Learning (research, problem solving, decision making, and technology integration); Content and Structure; Writing Mechanics; and Visuals.

Within Adobe Spark, students had access to over 19,000 templates for use in creating their digital project. Adobe Spark was developed with an educator's mindset and allows for student input, choice, and effort to create something affirming and unique (Lavery, 2018). Their project could be created in the following formats:

a) Graphics (Instagram story/post, Facebook post, or photo collage)
b) Presentation Webpage
c) Slideshow Video
d) Branded graphic

Students were encouraged to challenge themselves and create a digital project that allowed them to express their creativity while learning new technology. Students were directed to use their university email to login and connect to the university provided access to Adobe Spark. Once logged in to Adobe Spark, students can browse the over 19,000 templates and select a format for their digital project that met their needs.

Results to Date/Implications

Projects were submitted by 24 of 28 students for the CTE Legislation Spark assignment. Two students in the course ceased participation in the course after the mid-term and the other two students elected not to complete the assignment. Students had the autonomy to choose the style of digital project for their assignment. From the four options listed above: seventeen (17) students chose to complete an infographic style project, two

students chose the Instagram specific option, five students created videos, and one student created a unique project called a Glideshow, which is "a scroll-enabled experience that adds motion and dimension to your photos and text" (Converse, 2019). Students used a variety of design layouts, text and graphic combinations, and creativity in their digital project creations. One student shared the following quote in the assignment, "For my CTE Legislation Spark Assignment, I designed a game show to teach about the Morrill Acts. I wrote the script, filmed, and edited the video. My roommates and one of their boyfriends helped me by acting as contestants and the assistant. Through this assignment I was put out of my comfort zone by acting on camera. I also challenged myself by using iMovie and GarageBand, two applications I have never used before. Overall, this assignment taught me a lot about my own boundaries and technology." By encouraging students to step outside of their comfort zones and explore new technologies, instructors are encouraging their students to utilize various forms of technology in their future student teaching experiences and in other classes.

Future Plans/Advice to Others

Technology usage and implementation are important components of the college classroom. Instructors should strive to attend professional development workshops highlighting the use of new technologies that students could integrate in their coursework and careers. Future iterations of this digital project assignment should allow for student choice to select a topic of their choosing. Tutorial videos or examples of high-quality digital projects could possibly be provided to students as a guide, but caution is advised to allow students to express their own creativity and not mimic previously created projects. Instructor knowledge and skill in utilizing Adobe Spark (or other technologies) is recommended to provide answers and respond to student inquiries during completion of the project. Opportunity is available for students to complete this project individually, in partners, or in groups to promote collaborative learning.

Costs/Resources Needed

Institutional access to Adobe Spark and other Adobe platforms is needed to implement this idea. Students at (University) had access through their university sponsored Gmail account to access Adobe Spark. Pricing for Adobe Spark ranges from $19.99 per month for a team subscription, $9.99 per month for individual subscription with a 14-day free trial, and institutional packages are available by contacting the Spark for Education program. Students will need internet access and hardware such as a smartphone, tablet, laptop, or desktop computer. Additionally, there was an investment of instructor time (approximately 3 hours) to develop the rubric, assign legislation/topics, and review the assignment details with students as needed.

References

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