



IMPLEMENTATION OF VIDEO-BASED STEM CURRICULUM MARKETED THROUGH SOCIAL MEDIA

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INTRODUCTION

As defined by the National Research Agenda of AAAE, research priority four warrants further research of digital technologies impacting education and online learning settings (Roberts, Harder, & Brashears, 2016). The conceptualization of this project is to educate audiences in a non-traditional setting with STEM curriculum designed into video media. According to Wickstorm and Specht (2016), social media networks can gain and influence followers on various platforms. Practical tools like social media are needed to gain the interest of 4-H youth (Galloway, Arnold, Bourdeau, & Nott, 2013). This project uses social media platforms to promote STEM curriculum further to facilitate youth and educators.

COSTS/RESOURCES NEEDED

Implementing a video series include these materials: a DSLR camera (\$527.15), Creative Cloud subscription (\$21.99), a mic (\$79.90), an actor (volunteer), Filming location (free), social media (free), curriculum (free), and materials for the experiments selected. For this project, we used Oklahoma 4-H resources which were easily accessible resulting in a low cost production. The prices listed are as if this project was created with no resources available. There are many alternative methods to complete a similar video series.

HOW IT WORKS/METHODOLOGY /PROGRAM PHASES/STEPS

This project was developed with the intent to evolve STEM curriculum into a video form marketed through social media. In the Spring of 2018, Oklahoma 4-H began to develop activities and lessons into videos for social media use, particularly through Facebook. Educators, volunteers, parents and youth who “like” Oklahoma 4-H on Facebook and those who subscribe to YouTube, can view 4-H STEM curriculum developed into 2-3 minute videos.

Facebook was selected as the primary medium of choice, based on demographics and target audience. The information posted on Facebook and the Oklahoma 4-H website includes demonstrations, and steps, and links to lessons and handouts to ensure maximum educational benefits were provided. Literature indicates an absence of social media links hinder users from finding and spreading information (Rumble, Settle & Irani, 2016).

A three-person team worked in conjunction to create this project and individual positions were created: video editor, scriptwriter, and layout designer. The STEM coordinator determined content and scripts for each video. The layout designer, designed instructional handouts and strategized appropriate times to post videos to social media. Video editor filmed and edited videos into the final product. All team members participated in the videoing recording process.

The video series was constructed based on Kolb’s Model of experiential learning (ELT). ELT was developed from the conceptualization that learning and understanding is achieved through experiences or active learning (Kolb, 1984). ELT may be paraphrased and interpreted in layman’s terms as (1) active participation, (2) reflection of the experience, (3) evaluation of experience, (4) and the formulation of solutions to attempt again (Kolb, 1984). Similarly, the National 4-H Recognition Model encourages the “learning by doing” philosophy, which allows youth to complete hands-on projects (Kress, 2014).

RESULTS TO DATE

Currently, data analysis from the three videos posted on Facebook has resulted in 1,610 views, 39 shares, three comments, and 65 likes. Adding to the total is a combination of 96 unique IP addresses and viewers on YouTube. Reaching 29%, of Oklahoma 4-H’s Facebook audience or “likes.” With post receiving comments like “You getting this ready for next meeting?😊” and “how cool is this !?!?” from Oklahoma 4-H “followers”.

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