Scribing the Way: Using VideoScribe to Engage Agricultural Education and Communications Students in Virtual Learning

Rebekah McCarty, *Graduate Student*
New Mexico State University
P.O. Box 30003, MSC 3501
Las Cruces, NM 88003
505-382-7402
rmccarty@nmsu.edu

Shannon Norris, *Assistant Professor*
New Mexico State University
norriss@nmsu.edu

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Introduction

Education is being redefined as the use of online platforms becomes not only an option but a necessity. While these changes present their own challenges, many opportunities to cater to the diverse needs of students can also be observed. According to the American Association for Agricultural Education (AAAE; Edgar et al., 2016), there is a need to develop student-centered instruction that is feasible across numerous technologies and platforms. AAAE Research Priority Area 4 more specifically identifies the need for "change of instructional methodology from passive, teacher-centered instruction to active, student-centered instruction" (Edgar et al., 2016, p. 38). This claim is supported by multiple studies indicating that students value diverse course materials that foster meaningful interactions with both peers and instructors (Groton & Spadoloa, 2020; Martin & Bollinger, 2018). Integrating sketch videos into the delivery of online education courses may benefit agricultural education by simplifying complex scientific topics, increasing student engagement in course materials, and creating unique career exploration opportunities.

In studying the most effective engagement strategies for online learning, Martin and Bollinger (2018) discovered that students value three types of interactions in an online course. The categories listed in order of student preference are learner-to-instructor interactions, learner-to-content interactions, and learner-to-learner interactions (Martin & Bollinger, 2018). Other studies show that students also value the ability to work through course content at their own pace, access a variety of course materials, and engage in realistic scenarios that allow them to develop practical skills (Groton & Spadola, 2020; Martin & Bollinger, 2018). Understanding that video is a primary medium used in online learning, Laaser and Toloza (2017) further explored video styles currently used for teaching. His findings led to two primary styles of educational video—lecture capture format and explainer video. Lecture capture format records a presentation and all its elements from a fixed camera position. Meanwhile, "explainer videos," more commonly known as whiteboard or sketch videos, focus on storytelling through the animation of text or images (Laaser & Toloza, 2017). Edgar et al. (2016) stated that "meaningful learning should engage the learner in the process" (p. 38). Knowing that people have diverse learning styles and that there is not one dominant style used by any specific individual, we must consider the individual needs and values of students as we approach learning in an online environment. Delivering content through sketch video platforms such as VideoScribe positively impacts an instructors' ability to engage with students in an online environment and capitalizes on students' desire to play an active role in their own education and have an impact on those around them.

How it Works

Because virtual learning benefits from the integration of video visuals as supplements to regular instruction, we identified an opportunity to implement sketch videos into agricultural courses to increase student-centered instruction. To engage learner preferences identified by Martin and Bollinger (2018), we implemented sketch videos into a junior-level agricultural communications course at New Mexico State University. Guided by Laaser and Toloza's (2017) suggestion to allow students to have a personal touch with the videos, we allowed students to select a topic of their choice to sketch. The videos needed to relate to a topic regarding a food, agriculture, natural resource, or human (FANH) sciences issue; however, instructors can set their own parameters if

using VideoScribe to enhance student learning. The primary tools in VideoScribe include timeline programming, relevant text and image selection, audio development, and content timing. To gain exposure, students practiced incorporating these tools into videos so we could assess mastery. Because sketch videos require both audio and visual content, we also had students practice using instructor voiceovers to align visual content with auditory needs. At the end of the unit, each student completed a video using the primary VideoScribe features.

Results to Date and Implications

We observed that the sketch videos increased student interaction, which can positively impact agricultural education and communications courses at the secondary and college levels. We discovered that integrating sketch videos addressed the student value areas identified by Martin and Bollinger (2018) in an online setting. Students stated that the sketch videos improved their interactions with the instructors by challenging them with interactive tasks. Students also stated that developing sketch videos reinforced their ability to simplify complex, scientific topics.

Teachers can use VideoScribe as a hands-on learning activity or as a review assessment by having students design a brief video about a specific topic, such as the basics of photosynthesis, ruminant digestion, or making a motion in parliamentary procedure. Completed videos can be uploaded to a cloud server to be used in future lectures or as peer resources, which can benefit student-student interactions. Videos can serve as a tool to engage community members or stakeholders in advocacy settings or on social media. VideoScribe can also be use in intra- and extra-curricular programs such as 4-H and FFA by encouraging students to demonstrate the skills acquired though their supervised agricultural experience (SAE) programs or 4-H projects in a video format. Finally, video development provides opportunities for career preparation as reliance on technology will continue to increase for all students in the future. Agricultural education and communications students can benefit from integrating sketch videos into online education by gaining a more in-depth understanding of topics related to their future career fields.

Advice to Others

Increasing the presence of pre-recorded videos in online education can present challenges. While VideoScribe is user-friendly, we suggest teachers view tutorial videos to become familiar with the software prior to having students practice so they are familiar with the language and tools. Likewise, higher education institutions with programs in communications or videography could create professional development opportunities to provide resources to secondary teachers. We also recommend that teachers and administrators seek opportunities to finance the software through grants or private funding. To promote engagement for all students, opportunities to increase student accessibility should also be explored. We recommend piloting all course materials with closed-captioning, screen readers, and other tools to increase accessibility for students with visual, hearing, or learning impairments. Finally, an integration plan for students with limited internet or technology access should be considered.

Cost and Resources Needed

VideoScribe requires a paid subscription to export videos without a watermark (Sparktol Group, 2021). Some sketch video software is available free of change; however, there are limitations to the free subscriptions, including a limited number of exports, watermarked videos, or limited animation options. VideoScribe offers customized subscription options for educational use.

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