

Solving the Interactive Video Puzzle: EdPuzzle as a Platform for Content Delivery

Introduction/Need for Innovation

Students increasingly desire visual content to help them learn (Carr, 2014). Although students prefer to learn through videos rather than still images (Baker, 2016), researchers have found that video content only increased student knowledge when used in an interactive format (Zhang, Zhou, Briggs, & Nunamaker, 2006). Creating meaningful video content can take time and technological expertise, which is one of the biggest barriers to teachers utilizing this method of teaching for secondary and post-secondary instruction (Baker, 2016).

Agricultural educators desire a useful platform for delivering video content (Rutherford, 2014), and have a large workload which prohibits them from having additional time to create course materials (Torres, Ulmer, & Aschenbrener, 2008). The EdPuzzle tool (www.edpuzzle.com) is an online service that allows teachers to easily embed interactive components to pre-existing video content.

How it Works

The EdPuzzle tool allows instructors to create an interactive video module by uploading video content from an existing file or from any publically available YouTube video. The tool allows teachers to place multiple choice or short answer questions at any point during the video, or add additional audio or text comments. At the determined time for each interactive component, the video pauses and the student must attend to the question or comment before continuing to view the video. EdPuzzle can also be set to prevent students from skipping or fast forwarding the video. In addition, the tool allows the teacher to set the days and times the video module is available to students, a due date for completion, and records which students have started and completed the module.

Teachers deliver the video content to students by adding student email addresses to classes within the EdPuzzle system, and email a link to the students with a username and password which allows them to access secure class content. Student information is collected in the teacher EdPuzzle portal, including scores and choice selections on each multiple choice quiz questions, student answers to short answer questions, embedded in the video and class summary scores for each module.

The EdPuzzle platform also allows teachers to search from previously created video modules. There are currently more than 200 agricultural education related video modules created on EdPuzzle. As agricultural educators begin to use EdPuzzle more often, more agricultural education videos will be available to teachers with little input required.

Results to Date/Implications

EdPuzzle was used as a platform for delivering content in both the on-campus and high-school sections of the pilot for a dual-credit agricultural education course in Spring 2017.

Students enrolled in the on-campus ($n = 6$) and high-school ($n = 19$) sections had the opportunity to complete two of the eight course modules in the EdPuzzle system. The course instructor created video content using PowerPoint and uploaded the video into the EdPuzzle system. The first module included seven interactive pieces, and the second module included ten interactive moments. Results on the video module quiz questions were scored by the EdPuzzle platform and checked for accuracy. All student quizzes scored through the system were accurately recorded.

The instructor noted the ease of use and time-savings allowed by using the platform. Students reported their assessment of the platform on the course assessment. A high-school student enrolled in the class for dual-credit said, “having the quizzes in the video really helped me to pay attention, I kind of zone out on most videos I watch for classes.” One of the on-campus students noted:

I wish I had more online classes using something like the interactive videos, I liked that it was allowing me to think, and then having me put in my answers to the questions made me accountable. I also liked that the modules were open and let me do them when I had time.

Overall, the use of EdPuzzle has been determined to be a successful online video platform for the class that was easy to implement and engaging for students.

Future Plans/Advice to Others

We plan to modify the course design this fall to use EdPuzzle as the exclusive delivery platform for delivery of online asynchronous content. The course videos have been created using Camtasia and Powerpoint, then uploaded into the EdPuzzle system. In addition, we have identified five additional videos from other sources we will be adding interactive components to through EdPuzzle and using them in the course instruction.

Some important considerations for others include the limitations of using EdPuzzle. Currently, the only type of self-scored question allowed by EdPuzzle is multiple choice. Care should be taken to ensure that other forms of assessment are being used to encourage higher-order thinking for content. Another consideration is important for teachers who have a block on using YouTube in their school. By embedding a YouTube video in an EdPuzzle presentation, students are able to access it even if the school firewall would normally block YouTube content. Teachers should take care to ensure their administration knows which videos are being used, and their tie to the objectives of their courses.

Costs/Resources Needed

EdPuzzle is completely free of charge to students and teachers for all video module features. The company provides an online gradebook program and a student tracking program separate from the video module features that they offer to districts on a contract basis. In order to access the content, students need access to a computer, tablet, or smartphone with internet access. Teachers require minimal training to be able to use the system, complete training videos are available on the EdPuzzle website.

References

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