

University of Michigan, Ross School of Business

Clixie Pilot: Case Study

The Clixie pilot was conducted in Professor David Brophy's *FIN ES 329 629 F17 Financing Technology Commercialization: A Venture Capital Practicum* class at the University of Michigan's Ross School of Business during the fall semester of 2017. The purpose was to determine if video interactivity (integrated with the Canvas LMS) would improve the learning experience for instructors and students and, if so, how and where the interactivity was best deployed.

One of the Teaching Assistants (TA) was responsible for student support, filming the videos in and out of class, adding the interactive elements and posting the "Clixified" videos to the Canvas LMS for student viewing. The TA's, along with Clixie team members, monitored the student behavior as they interacted with the videos during the semester.

Clixie was introduced into several areas within the class structure. The videos were focused on:

- 1) *Video Announcements* – Short videos released prior to the week's upcoming class (featuring Professor Brophy), that explained what assignments were due, what speaker would be featured in the next class and what to know/read before coming to class. The videos were posted 3-5 days before class.
- 2) *Speaker Videos* – Each of Professor Brophy's classes featured a guest speaker that presented for approximately one hour. Each speaker was filmed and the videos were then edited into shorter segments (3-5 minutes) and then "Clixified" for student viewing. The videos were made available inside of a published page and were viewable only as individual videos until Chaptering (see below) was introduced.
- 3) *Lecture Review Video*– Introduced at the end of the semester, the Lecture Review Video introduced the concepts of Chaptering and Gating. The LRV was created using multiple small video clips (chapters) to make a longer form video for use as a study guide for the final exam. At the end of each chapter, a Canvas quiz was administered that required all answers to be correct prior to

“unlocking” the next chapter for viewing. For correctly answering all questions on the 9 quizzes, students received 10% extra credit toward their final exam grade.

Clixie provided a wealth of data, to show overall class trends and individual statistics, on how the students interacted with the videos. This data came from the Clixie backend and the integration to the Canvas student profile (using native OAuth2 Authentication Protocols). The data was analyzed during the semester and used to adjust in-class teachings and supplemental teaching material, based on perceived student needs and interests. This also showed a dramatic increase of video views and higher engagement levels when students were offered a reason (clear value proposition and easy to use interactivity) to watch the videos (e.g. 10% extra credit and help in studying). Students were an average of **fifteen times more likely** to watch the videos that were included in the Lecture Video Review (Chaptering and Gating) than if they were offered as individual lecture videos.

During the semester, two surveys were administered the class, at the end of the 2nd week and at the end of class. The survey data shows the following:

- 91.53% Took the Lecture Video Review (“LVR”)
- 89.83% Said Clixie was easy to use
- 88.14% Said the LVR was easy to use
- 86.44% Watched more than one video
- 86.44% Said Chaptering was valuable and easy to use
- 81.36% Said the LVR helped prepare them for the final
- 81.36% Said Video Announcements (“VA”) were easy to use
- 76.27% Want more LVR’s in other classes
- 74.58% Want more class lectures with Clixie
- 69.49% Said VA’s helped prepare them for class
- 66.10% Said VA’s gave the class more organization and structure
- 57.63% Want more VA’s in other classes

Conclusions (Executive Summary)

The pilot was successful in demonstrating that both students and teaches benefitted from using interactive video through increased student engagement, higher efficiencies of teaching methods and actionable

preemptive student data. Students were fifteen times more likely to watch videos that included enhanced interactive features. The students adapted to the Clixified quicker than expected (90% ease of use) and no student support was required. The ease with which the students used the Lecture Review Video was higher than expected (88% said it was easy to use), as the concepts of unlocking content through embedded quizzes in the video and chaptering different video segments are complex and unique. One of the most important statistics was if "...the Lecture Review Video helped prepare me for the final exam" and 81% affirmed that it did. It was surprising that fewer students wanted more Video Announcements in other classes (58%) or thought that the Video Announcements helped structure and organize the class (66%). The video data shows more students interacting with the VA's in the beginning of class and less at the end, as the students realized it was quicker to scan the text below the videos.

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