Investigating the Effectiveness of Video Content in a College Transition Course

Sherri L. Stepp

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Abstract

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This paper explores the effectiveness of video content delivery in a college freshman transition course at Marshall University, a four-year public institution. The course, UNI 100 Freshman First Class, was implemented in fall 2010 and the content delivery method was changed to video delivery with a class facilitator in fall 2012. While there is a significant amount of research available on the necessity and effectiveness of college transition courses and there is research available on the use of videos in the classroom, no research was found that investigated the use of video content delivery specifically in a college freshman transition course. In recent years, the cost of producing video has dropped significantly allowing more institutions to explore video content for the classroom. In synthesizing some of the available resources, it was found that video could be an affordable and effective learning tool when delivered in a manner that includes relevant course material and integrates student participation and efficient learning.

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Introduction

In fall 2010, Marshall University implemented a new freshman transition course called UNI 100 Freshman First Class. The course contained an informational and social transitional program called Week of Welcome (WOW) and also included an online component for delivery of course content. After two years, evaluations suggested that the online portion of the course was unsuccessful in its effort to effectively deliver content to incoming freshman. Though students managed to pass the content quizzes, they retained little knowledge as was evident in their confusion about campus resources. For this reason, the online portion of the class was eliminated and classroom sessions were integrated into the WOW program and seven additional weekly course meetings were added. Students met with their classroom facilitators in technology enhanced classrooms to view videos and complete class activities designed to reinforce the content. Activities included written reflections, quizzes and worksheets (Stepp, in press).

There were three classroom sessions during the two-day WOW event. At each of these class times, nearly 1700 students in 57 classrooms met simultaneously. Video content was streamed via Livestream and included an opportunity for questions from the students to be answered by experts in a studio.   The "Livestream encoder transmits video from your camera into a live feed over the internet so people can see your event in real time" (Why Livestream, n. d.). This enabled facilitators to submit questions from their students via the Livestream feed. The seven weekly sessions incorporated the use of the University's YouTube channel and were available on demand. Video links were

made available to facilitators in advance of the class meeting and made available to students at the conclusion of the weekly sessions.

Video content was delivered by campus experts on topics generally included in freshman transition courses such as academic wellness, university history and traditions, Title IX and personal responsibility and safety, health and wellness, student involvement, career planning, financial responsibility, registration methods and library resources. By ensuring that each topic was delivered by the "expert," each student received a consistent and accurate message about available resources and opportunities.

Effective college transition programs are essential to retention, but "…retention should be the residual benefit of planning and implementing effective student learning and success initiatives rather than as the purpose of it" (Siegel, 2011, p. 1). Therefore, this paper investigates the effectiveness of this content delivery method by reviewing recent research in the areas of freshman transition courses and video use in the classrooms. The comments of UNI 100 facilitators will also be considered as first-hand accounts of student responses to the video content.

Questions for Exploration

There are several questions to be considered in regard to the effectiveness of video content in the UNI 100 freshman transition course. The literature review will address the following questions:

1. Is video delivery an appropriate method of content delivery in a freshman transition course?

2. Is video alone an appropriate delivery method, or should it be used in combination with other methods?

3. What is the appropriate length of video content to maintain effectiveness?

4. Can video content be made to effectively allow interaction between the content, the classroom facilitator, and the students?

5. Should content be delivered by campus "experts" or by peer students?

Literature Review

While there is a significant amount of research available on the necessity and effectiveness of college transition courses and there is research available on the use of videos in the classroom, no research was found that investigated the use of video content delivery specifically in a college freshman transition course. This review will look at the topics separately and synthesize the material to speculate whether or not video content delivery is effective in a freshman transition course.

College Freshman Transition Courses

College retention rates and academic performance have been hot topics for research in recent decades. Such research has been influenced by the onset of first-year experience programs and courses; however, generalizing the research results is not an easy task. Tinto's (2006-2007) research in the 1970s began to shift the blame for student failures from the student and acknowledge that the educational institution, along with the environment, helped to determine the student's success. In contrast, Alexander and Gardner (2009) suggest "…it remains the case that the dominant mind-set is to consider college students primarily responsible for their own educational outcomes rather than acknowledge our own responsibility as educators" (p. 21).

When a particular class or transition program works for one institution, it is not a guaranteed success at another. First year experience programs, as well as the makeup of student populations, vary widely at different institutions. Many institutions require that students take the transition course while other schools do not require enrollment. Courses vary in length, content and pedagogy (Raymondo, 2003). "Retention is no one's problem, but everyone's problem. It follows that it can be everyone's solution" (Siegel, 2011, p. 8). Because of the importance of retention, each school should establish an assessment program to evaluate the implementation and effectiveness of freshman transition courses on their own campuses.

According to Veenstra (2009), support programs are needed in the first year since there is a high percentage of students who fail to persist. Colleges and universities are obligated to provide support to students in order for them to succeed. They are responsible for ensuring that students are learning, not just in their first year transition courses, but in all of their courses in their first year. "Despite the popularity of those experience courses, it is not clear how effective they are in retaining students and influencing academic performance" (Clark & Cundiff, 2011, p. 617). For this reason, it is essential for colleges and universities to assess academic performance in addition to retention.

Siegel (2011) notes that first-year experience programs help students learn about the college experience and result in increased academic performance and persistence. Jamelske (2008) found that participation also results in greater student involvement in campus activities along with satisfaction with the college experience. Goodman and Pascarella (2006) describe the elements commonly found in a first-year transition course:

The element that is most common to first-year seminars is a regularly scheduled

meeting time with a specific instructor for new students. Elements that vary

include the frequency and duration of class meeting times, content, pedagogy, and

structure; credit hours and grading' and whether the course is required or an

elective. The common goal of first-year seminars is to increase academic

performance and persistence through academic and social integration. The long

term goal is increased degree attainment. (p. 26)

Alexander and Gardner (2009) surmise that "…their potential impact would be far greater

if they were more integrated, less competitive, and less duplicative" (p. 20) reinforcing

the need for more research by individual institutions in regard to their own practices.

Content Delivery in the Classroom

There are several different methods of utilizing video in the classrooms including

video created by the instructor, video created by teams of instructors, use of pre-recorded

materials available online by institutions such as the Khan Academy, social media like

YouTube and reputable academic institutions such as Massachusetts Institute of

Technology (MIT). There are also different approaches to how the videos are

incorporated in the classroom and outside the classroom.

Dey, Burn, and Gerdes (2009) note that "multimedia learning occurs when

learners engage in different kinds of cognitive process: selecting words, selecting

images, organizing words, organizing images, and integrating these elements" (p. 379).

They further explain that instructors choose to use technology based on their own

personal epistemological beliefs. Their beliefs are reflected in the learning outcomes for

students and in the methods they choose to deliver the content.

In recent years, the cost to create video content has decreased significantly. In some cases, instructors can record their own lectures at little or no expense with only minimal technical abilities to utilize the hardware and software programs. Orlando (2010) states that social media has provided the opportunity for anyone to become a video producer. Many high quality teaching videos have resulted from this capability. Demetriadis and Pombortsis (2007) state that this inexpensive opportunity provides flexibility for the instructor as well as increasing "...learning flexibility as students can easily access online material and reuse it as needed" (p. 147). They further argue that the use of digital lectures should not be just for the sake of using technology. Instructors should carefully consider the pedagogical value and ensure that students are engaged in learning activities.

Choi and Yang (2011) found that students who were provided with problem-based video instruction were more satisfied and learned more than those students who were provided with text instructions. Richardson and Glosenger (2006) pointed out the importance of including "strategically planned viewing activities" (p. 6) to accompany the video content. Such strategies include the traditional viewing guide where the instructor provides a list of questions for the students to briefly review before viewing the content and then answer while viewing. Another strategy is a graphic organizer on which the instructor provides the major topics and students are asked to provide the main ideas as they view the content. The third strategy presented by Richardson and Glosenger is the collaborative group viewing guide allowing groups to select different topics on which to answer specified questions. Students are provided the opportunity to summarize their topics and share with the class. Such strategies incorporate critical thinking by

transforming "video viewing, a relatively passive activity, into a dynamic and interactive event" (p. 6) and "effectively focuses students on steps in a process, helps them organize large amounts of data and provides structure for analyzing relationships."

According to Jones and Cuthrell (2011), video can be a vital tool in the classroom. Video usage activates the brain's core intelligences (verbal/linguistic, visual/spatial, and musical/rhythmic) and utilizes both sides of the brain. "The brain's left hemisphere processes language thereby enabling learners to process dialog, lyrics, and plots. The right side of the brain is used to process nonverbal input such as visual images, color, sound effects, and melodies" (p. 77).

Orlando (2010) surmises that the value of a teacher is in her ability to bring together the best resources available to produce the expected outcome. Teachers have access to thousands of video resources and should not have to develop their own materials each time they choose to use a video in the classroom. The teacher can critically synthesize the available materials to incorporate in a lesson utilizing one or more of the many available resources. One of the most common resources for video content is YouTube, a social networking website where users can create and contribute video content on literally any subject and other users can submit comments.

The Adjunct Assistance website suggests that class sessions should be divided into 20 minute chunks to be effective. Video lends to the ability to do this by breaking up long lectures. The website also asserts that videos are an important tool in student learning. Videos can be utilized to meet certain pedagogical expectations such as introducing topics, reinforcing topics and making the best of available instruction time. YouTube videos can be out-of-class assignments and finding appropriate topical videos

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can be the assignment (YouTube and the college instructor, n. d.). YouTube videos can serve as a resource for teachers, a direct part of a classroom lecture or as an attention-grabbing method (Jones & Cuthrell, 2011).

The Suite 101 website also espouses the virtues of video in the classroom. "Students…learn by seeing, hearing and doing" (The college instructor's guide to YouTube, n. d., para 3) and college instructors can use video to appeal to the students' needs for "visual, auditory, and kinesthetic learning preferences" (para. 3) because students retain more knowledge when all three modes are utilized. One alternative to the social networking videos is the Khan Academy which is an instructional video repository with more than 2,000 educational videos. The website began when Salman (Sal) Khan created instructional videos for his cousin who needed help in math. The videos available from the Khan Academy are academic and appropriate for the college classroom (The Khan Academy and the college classroom, n. d.).

Another source of academic lectures is the Massachusetts Institute of Technology OpenCourseWare. This site actually publishes full courses available for public use at no cost. The site offers more than 2,100 undergraduate and graduate courses representing nearly all the courses offered at their educational institution. The site documents the usage patterns and notes that 31% of the educators who utilize the site use the videos to improve their own personal knowledge. Other educators utilize the site to learn new teaching methods, incorporate material into their own courses, locate reference material for students or assist in the development of curriculum for their own students. Forty-six percent of student users also indicate they use the site for personal knowledge and further utilize the site to complement their current courses or assist in the preparation of a plan of

study. Self learners typically use the resources for work-related professional development (MIT OpenCourseWare, n. d.).

While many of the resources above expound the benefits of video use in the classroom, some instructors at both the college and high school levels have "flipped their classrooms" to incorporate video usage outside the classroom. The math teachers at Byron School District in Minnesota (Fulton, 2012) found themselves without money for textbooks, so they decided bypass textbooks and create their own curriculum. The teachers worked together to create video lectures to replace the textbooks and these videos were assigned as homework. This then allowed class time to focus on working with students to practice problems and explore content related discussions beyond the lecture, thus, the idea of the "flipped classroom" (p. 21).

Ash (2012) noted that although a flipped classroom can be effective, it is still a lecture. "You can't just hand the flipped classroom off to an ineffective teacher and say you're going to transform the classroom. It's not going to make a bad teacher a good teacher" (p. 57).

UNI 100 Facilitator Comments

UNI 100 facilitators met shortly after the conclusion of the seven weekly seminars to discuss the format of the class and specifically discussed video use in the classroom. In preliminary survey results and facilitator interviews, the most common reflection was that the videos were too long. The seminar classes were 50 minutes in length and the videos ranged from 21 minutes to 27 minutes in length. Since classroom size ranged from 20 to 50 students, by the time the facilitator took attendance, made announcements and watched the video, there was little time for any additional activities or any time for

the students and facilitators to make a mentoring connection. Some facilitators felt the

videos contributed to a detached environment, the opposite of what is desired in a

freshman transition course. Additional comments included suggestions to rearrange the

order of the video content, breaking the videos into smaller sections with breaks between

topics, including more students in the video segments, and the possibility of using video

in some of the class meetings but not all of them. Most agreed that the content topics met

the needs of the students. Some facilitators desired more autonomy in the classroom

while other inexperienced facilitators were comfortable with the content and activities

being prepared for them. (Stepp, in press).

Practical Implications for Video Content in Freshman Transition Courses

As previously noted, there was no research found to reflect the effectiveness of

video content delivery specifically in a freshman transition course. Based on the

literature review of the separate topics, one can synthesize that the learning needs of

students in the freshman transition courses can be met by effective use of video content.

Recommendations from those facilitators who experienced the course should be carefully

considered in relation to the classroom pedagogy recommended by Jones and Cuthrall

(2011). The methods that best meet the needs of the brain's core intelligences and utilize

both hemispheres of the brain should be explored. Dey, Burn, and Gerdes (2009) urge

instructors to use activities that utilize different cognitive processes such as the selection

and integration of words and images.

Based on facilitator's comments, the length of future course videos should be

shorter than utilized in this course. The Adjunct Assistance website recommends that

class lectures or activities should be divided into 20-minute chunks (YouTube and the

college instructor, n. d.). The UNI 100 videos were generally longer than this and the total available class time did not allow for additional activities. By shortening the videos, either as one total video, or multiple short clips with activities interspersed, the students will gain more effective learning opportunities and facilitators can enhance the socialization of the students.

While video alone incorporates the use of multiple senses essential to learning, facilitators strongly believed that they needed more time to interact with the students. Veenstra (2009) believed that colleges and university are obligated to provide support for students. By allowing facilitators the opportunity to provide interactive activities along with the video content, they would be enabling the social interaction that is one of the factors essential to college success (Goodman & Pascarella, 2006).

The found research did not clearly discuss who should provide the video content. The UNI 100 videos incorporated some student videos among the topic experts, but several facilitators believed that student would be more willing to listen and pay attention to their peers. By incorporating more student-to-student content, the material would seem more relevant and noteworthy to the freshmen; however, it is believed that some content, such as academic policies, should be delivered by the experts.

With effective learning techniques as the foundation of the course, it is believed that video content can be used in combination with other learning activities to enhance interaction between the content, the facilitator and the students. Such activities can include the use of graphic organizers and viewing guides to promote attention and post-video discussions (Choi & Yang, 2011). With shorter video length, facilitators can implement ice-breaker activities to promote social integration.

Recommendations for Video Use in UNI 100

A preliminary review of UNI 100 assessment indicates that the videos were somewhat effective, but the classroom facilitators believed that there is opportunity for improvement in delivering the video content. It is recommended that assessment continue and be allowed to influence adjustments to the course methodology in the upcoming year. It is also essential to consider the pedagogy that will be utilized in the classroom setting.

Due to a lack of research on the use of video in freshman transition courses, it is recommended that the current assessment be expanded to include student assessment to enhance the suggestions and opinions of the course facilitators. Once there is a thorough assessment, it is recommended that the results be published for other first year transition programs to benefit from the trial, error and unique learning opportunities in the UNI 100 freshman transition course at Marshall University.

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