ICEMST 2015: International Conference on Education in Mathematics, Science & Technology

ONLINE LEARNING: CAN VIDEOS ENHANCE LEARNING?

Karim HAJHASHEMI

Neil ANDERSON

Cliff JACKSON

Nerina CALTABIANO[2]

School of Education, James Cook University
[2]Department of Psychology, James Cook University

ABSTRACT: Higher education lecturers integrate different media into their courses. Internet-based educational video clips have gained prominence, as this media is perceived to promote deeper thought processes, communication and interaction among users, and make classroom content more diverse. This paper provides a literature overview of the increasing importance of online videos across all modes of instruction. It discusses a quantitative and qualitative research design that was used to assess on-line video pedagogy and perceptions of lecturers and students of video use.

Key words: Online learning, online videos, ICT, blended learning,

INTRODUCTION

In recent years, many universities have increasingly used online learning resources as an adjunct to traditional modes of learning and as part of the Blended learning. Blended learning is the purposeful use of technologies in subject design to enhance the learning and teaching experience for teachers and students by enabling them to engage in ways not previously available to them (JCU Blended Learning Policy, 2014). One of the most promising approaches of blended learning that has attracted attentions among higher education lecturers is to integrate different media into courses. Internet-based educational video clips have gained prominence, as this media is perceived to promote deeper thought processes, communication and interaction among users, and make classroom content more diverse. Educational benefits of online affordances and web-based information have provided both students and academics such an opportunity to see different types of educational videos available only through an internet connection. According to Sherer and Shea (2011), integrating online videos to deliver a subject in any mode (traditional, online, or blended) provides many opportunities for students. For instance, it can enhance lectures, class discussions, exams, and even students' skill competency. Similarly, Lance and Kitchin (2007) argue that academics no longer need to carry out-dated videos and DVDs from class to class as they can simply present the video by accessing the internet during class, copying the link into their presentation slides, or even inserting them into their web-pages. These and other resources can be interwoven to make the classroom more diverse. For instance, Greenfield (cited in Lance & Kitchin, 2007) postulates that videos can offer "an accessible visual and emotional experience to students', presenting 'a literacy', and a new language – the 'language of images', and a form 'symbolic visual codes'" (p. 113). In a similar vein, Sherer and Shea (2011) state that the flexibility, accessibility, and content breadth of online videos provide opportunities for both teachers and students as they can be used to shape and contribute to subject content as well as increasing students' engagement in classroom activities.

Providing the students with the opportunity of complementing courses with the Internet-based educational video clips has been one of the crucial developments in higher education. Traditionally, courses were offered in internal or face-to-face mode. Today, however, owing to the growth of technology and ICT, most subjects are offered fully or partially blended. Sherer and Shea (2011) state that the use of online videos in higher education is increasing as part of the explosion of Web 2.0 tools that are now available. Thinking about how educational

- Selection and peer-review under responsibility of the Organizing Committee of the conference

*Corresponding author: Karim HAJHASHEMI- icemstoffice@gmail.com

video clips can enhance learning gives academics the opportunity to adjust and update their traditional curriculum and teaching approaches to meet the needs of diverse learners in higher education. More recently, McCoog (2007), Henry et al. (2005), and the Bill and Melinda Gates Foundation (2010) highlight the importance of thoughtful and purposeful use of technology to facilitate students' achievements. They state that it should help exploration of other learning avenues in the process of differentiating instruction with clear educational goals. It should also engage students in creative information gap activities and real experiential learning. To address the obstacles to US educational innovations and tap the potential of technology, for instance, the Bill and Melinda Gates Foundation argue that utilizing technology intelligently can dramatically improve American students' readiness and completion. Furthermore, the emergence of the Net- generation indicates that universities have to address and include the role of technology in their teaching and learning. The Net-generations are "demanding a change in the classroom because of their ability to gather information faster than any other generation" (Willingham, 2010, p. 1). With the increased use of computers and technology comes the increased need to equip learners to engage with the challenges in different learning modes. In providing an optimal learning environment for learners, we need to understand students' experiences and perceptions, as well as how to best use technology affordances to enhance face-to-face and blended classes.

Online affordances and and web tools are typically designed to engage students and to improve the quality of their learning experience and outcomes. The reverse could also be true. Counter to the studies positing that a mixture of media with the course will meet the needs of more learners and lead to a better learning outcomes, Angiello (2010) and Means, et al. (2009) believe that the inclusion of more media (e.g., videos, and online quizzes) does not enhance the amount that they learn in courses. Thus, it is important to consider students' perceptions of the changes in educational aspects in parallel with technological innovations and different types of ICT resources. Integrating of students' preferences through understanding their perceptions of these innovations into their learning environment may facilitate meeting individual learning needs. The results of some studies have revealed the effectiveness of different technological modes of instruction and the positive perception of students (e.g., Evans, 2008; Karal, Çebi, & Turgut, 2011; Rose, 2009). This study aimed to provide insight about lecturers and students' perceptions at the school of Education, JCU, of integrating video affordances in their pedagogy.

METHODS

Participants

The study included 76 tertiary students of both genders studying at James Cook University and their lecturers (*N*=4). The students were taking undergraduate subjects at the schools of Education (i.e., ED3441). The lecturers (*N*=4) from the school of education were selected on the basis of their past teaching experience using technology (ICT) to support their instruction.

Research Tools

Using a mixed methods approach, the researchers validated and distributed an online questionnaire via SurveyMonkey including two sections. In the first part, the researchers aimed to identify participants' level of agreement with statements related to the use of videos in different modes of instruction through likert-type scale questions. The second part of the instrument included some open-ended questions to give students a clear voice on issues, experiences and perceptions of online videos utilized in different modes of instruction (online, blended or face to face). Semi-structured interviews with students (*N*=4) and their lecturers (*N*=4) were also used as a key qualitative dara source to further investigate their perspectives about learning through online videos, across different modes.

Data Collection Procedure

The quantitative phase of the study was carried out exclusively through the use of online survey as studies (e.g., Carini, Hayek, Kuh, Kennedy, & Ouimet, 2003; Delaney, Johnson, Johnson, & Treslan, 2010) have revealed its effectiveness and efficiency in collecting data. For the qualitative part, interviews with 4 studetns and 4 lecturers were conducted, audiotaped and transcribed.

RESULTS AND FINDINGS

Quantitative data

Initially, the 12 items of the researcher made questionnaire were subjected to principal components analysis (PCA) using SPSS version 22 to identify the more managable set of variables and factors. According to Pallant

(2011, p. 122), "[F]actor analysis is used when you have a large number of related variables and you wish to explore the underlying structure of this set of variables". Principal components analysis revealed the presence of three components of learning experience, motivation and engagement (see Table 1).

Table 1: Principal Components Analysis

	Factor		
	Learning Experience	Motivation	Engagement
Using online videos helped me to reflect on what I was learning.	**.80**	.10	.14
Online videos used in the subject contributed to my learning.	**.66**	.28	.48
My reviews of online videos improved my performance in the subject.	**.66**	.31	.01
The use of online videos enriched the subject materials.	**.66**	.29	.47
Online videos helped me do better on assignments/exams.	**.61**	.27	.38
The use of online videos in the subject helped me understand the material better.	.33	**.75**	-.01
The use of online videos in the subject enriched my learning experiences in this class.	.38	**.61**	.35
Online videos provided me with valuable resources for this subject.	.52	**.61**	.19
The use of online videos in the subject stimulated my interest in class sessions.	.06	**.57**	.27
I prefer learning through videos more than through an in-class lecture.	.01	.04	**.52**
I was able to learn effectively because of the mix of videos used in this subject.	.29	.45	**.50**
Online videos made the class more interactive.	.14	.36	**.47**

The factors were then subjected to descriptive analysis and the results are shown in Table 2. Based on the results, the 3 main categories resulting from integrating online videos were learning experience (*M*=19), motivation (*M*=15.78) and engagement (*M*=10.81).

Table 2: Descriptive Statistics of three Factors (*N*= 76)

	Minimum	Maximum	Mean	*SD*
Engagement	4.00	15.00	10.81	2.01
Motivation	7.00	20.00	15.78	2.63
Learning Experience	9.00	25.00	19.00	3.22

Qualitative phase

The preliminary results of the interviews also revealed the educational values of the online videos such as:
- Increasing learners' engagement and promoting their critical thinking, decision making and creativity
- Offering useful conceptual links between the theory and practice as they can connect to experiments outside the university
- Providing an avenue for learners to visualize concepts that they might not have the opportunity to see during the subject
- Providing new avenues for lecturers to engage in rigorous and serious observations of classroom activity to support and improve learning and teaching and expanding what they present

CONCLUSION

This study attempted to explore the effectiveness of integrating online videos in support of students' learning. The findings revealed that students thought the videos could help them to improve their learning which also confirmed the previous studies and the positive perception of students (e.g., Evans, 2008; Karal et al., 2011;

Lance & Kitchin, 2007; Rose, 2009; Sherer & Shea, 2011). The findings revealed that using videos to support learning and teaching could enhance students' learning experience, motivation and engagement with the course content and proved the videos' potential to satisfy the promising expectations of learning by assisting the delivery of high-quality services.

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