Use of Vimeo on-line video sharing services as a reflective tool in higher educational settings: A preliminary report

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Most students attending the School of Education, University of Western Sydney (UWS) have competing schedules due to the combination of work, family and study commitments which makes effective collaboration difficult. Dispersal within the Greater Western Sydney area further encumbers collaboration and this makes students interactions a difficult and demanding task. This is reflected in on-line scenarios, as academics at University of Western Sydney (UWS) note that many students do not contribute to on-line work (blogs, wikis or discussion forums). This could be further attributed to the lack of provision of on-line learning objects such as digital videos that triggers students learning and exploration. In this regard, we identified the potential of using online digital videos embedded in blogs within our e-learning system (Blackboard). Preliminary research was conducted using digital video embedded in blogs and measuring student's participation. Quantitative and qualitative methods were used as students were asked to respond to on-line discussions and an on-line survey related to the video topic. The concept was to allow the students the opportunity to reflect on the videos, by learning in a visually appealing and therefore constructive manner. Preliminary data shown the potential of these videos to increase students participation and promote reflective learning and on-line collaboration. Although we identified the need to conduct rigorous research, taking into account content analysis of the discussions, before drawing a firm conclusion, we believe that this strategy has the potential to become a powerful teaching and learning tool that will engage students in the use of e-learning resources within the School of Education at UWS.

Keywords: digital video, digital video embedded in blogs, online participation, blog discussion.

Introduction

There appears to be a dissociation between theory and practice in terms of good teaching practices to pre-service educators, within the School of Education at University of Western Sydney (UWS). Different strategies need to be developed in order to address this limitation so to engage students in real learning as well as provide exposure of pre-service teachers to quality classroom teaching practices. This issue has been described both in Australia (Bluic, Ellis, Goodyear & Piggott, 2010; Buckingham, 2005) and internationally (Schon, 1987; Smith, 2000;Stigler & Hiebert, 1999). Further, during the pre-

service teacher's stage of their career, the notion of good examples of quality teaching practise with provision for reflective practice by students needs to be cultivated (Rhine & Bryant, 2007).

In this regard, digital video in combination with blogs (on-line discussion) create a new world of possibilities in pre-service education. Digital video makes it possible to capture and edit an hour of footage into short segments and to compress it to upload inside Blackboard/ WebCT e-learning systems. Pre-service teachers can view these short video segments in the context of the time and place of their own choice. On-line discussions can then follow. It has been reported that increased discussion among pre-service teachers helped students to handle stress, develop confidence and increase self-esteem (Kamens, 2000) and stimulate critical thinking (Arthur, Beecher, Elliott & Newman, 2006; Otero, Peressini, Anderson-Meymaris, Ford, Garvin, Harlow, Rediel, Waite, & Mears, 2005). This preliminary research explores whether using web based video followed by blog discussions will encourage on-line collaboration, increase idea sharing and improve discussion and consideration of ideas.

Literature proves that there are a number of advantages of using video in education. These include; providing a powerful tool to demonstrate situations that cannot be explained adequately, showcasing effective teaching methods, promoting dialogue on critical issues in the field, helping to apply theory to practice, and creating enthusiasm and confidence in the viewer so they can implement new strategies/approaches (Dymond & Bentz, 2006). Additionally, video provides a natural medium for enhancing the sense of context and realism in case studies. It can capture the complexity of classroom interactions and allow students to replay events as many times as they need and absorb important features that escaped them on first viewing (Columbo & Columbo, 2007: Jacobs, Kawanaka, & Stigler, 1999; Stigler & Hiebert, 1999).

A study conducted at the School of Education, Edith Cowan University (Newhouse, Lane & Brown, 2007) concluded that the use of digital-video-based case study analysis supported students in providing them opportunities to link theory with practice. Students demonstrated much better understanding of the pedagogical theory and related this more authentically to their own practice. Further, it has been reported that the use of streaming video for teaching foreign languages and English as a second language is an effective methodology to provide examples of successful teaching methods, and assist them to generate new ideas for teaching in the area of languages (Dhonau & McAlpine, 2002). Other authors have reported positive outcomes using videos in educational environments such as teacher education (Brophy, 2004), preparation of elementary science teachers (Abell & Cennamo, 2004), and linking on-line video to improving teacher community knowledge (Fishman 2000). However, there is limited documentation specifically related to the use of on-line Digital Video in conjunction with blogs in higher educational settings in Australia and this preliminary study was conducted to determine if there was justification in developing a further and more complex research study in this area.

Research objectives

Currently issues with on-line participation from our students encouraged us to trial the inclusion of Digital Video embedded in blogs in the Early Childhood unit: "Contemporary Perspectives of Childhood". We sought to use on-line digital video technology to promote reflective learning amongst our pre-service teachers. We believe that this approach has the potential to promote self-directed learning, increase motivation, activate learners to find their own solutions and have a positive effect on self-confidence. The study will address the following research question: What is the relationship between the use of digital video embedded into blogs and students participation?

Context

Many education students at UWS students are not making use of the opportunities to participate in e-learning system (vUWS), and make limited use of the on-line opportunities afforded them. To determine the reasons behind this reluctance to embrace e-learning it is necessary to examine the specific cohort of students attending the UWS. The students come from various different cultural and socio-economic backgrounds. Seventy-three percent of students who attend UWS live in the Greater Western Sydney Region (UWS, 2003).One third of this region's population are born overseas and half of the world's languages are spoken by students. The region encompasses many of the seriously disadvantaged segments of Australian society. Additionally, half of UWS' students are the first

generation of their family to attend university. The student population is heterogeneous, including mature-age students, and students who are have just completed high school or attended a TAFE (Technical and Further Education) course. Students have a varied range of computer skills. In many cases the students have very tight schedules due to working full-time as well as undertaking full-time studies.

This has contributed to the decision of UWS to adopt policy where many core studies are taught on-line. Academics teach a large proportion of their course on-line through e-learning (Blackboard). This is to ensure that course content is easily accessible to all students. The flexible nature of online study should appeal to our students who need to juggle competing schedules (Arthur, et.al., 2006;Volery & Lord, 2000). However, academics at UWS are concerned about the response to e-learning. They state that it is a constant challenge to encourage students to participate and respond to on-line work. We believe that an interactive and challenging e-learning site, which encourages collaboration through useful video embedded in blogs, has the potential to increase both participation and usage. It is important to follow this with discussion and open-ended questions to address some of these limitations.

We identified that the Vimeo video-sharing application in conjunction with blogs, as one potential tool to be used by teaching staff to consolidate students' learning, improve student relationships, promote collaboration between students, and give students an opportunity to express their opinions and provide feedback.

Vimeo video sharing services

Our current server allows us to upload a maximum video size of 20 MB, or 3-8 minute long video vignettes. In the past students reported frustration with slow downloads when videos were hosted directly inside the UWS server. Due to this limitation, we decided to use the Vimeo server as the host for digital videos.

Vimeo was launched in November 2004 and supports embedding, sharing, video storage and user-comment on each video page. The name Vimeo was created by co-founder Jakob Lodwick and conveys the words "video" and "me" as a reference to the site's exclusive dedication to user-made films. The Vimeo server is currently used by several academics within the School of Education at UWS, with positive results.. The main advantages of using the Vimeo Plus service can be summarised as follows:

- easy for academics to use
- ability to manage and organise groups
- advanced privacy, including the ability to password -protect videos
- a large amount of upload capability per week; and
- affordable.

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 These features influenced our decision to use Vimeo for this study.

Case study

As university educators we were confounded by the apparent paradox that many of our students were technologically advanced yet exhibited a real reluctance to contribute to on-line work. We questioned whether educators were providing sufficient opportunity for students to express their opinion and engage in discussion with peers. Although, many academics provided student with quality actual on-line work there was limited provision for engaging in on-line discussion between students. This research focus was to see whether the use of embedded digital video into blogs would change the number of on-line discussion postings and enhance the learning experience.

During the Spring semester of 2009 an excerpt from a video "Consuming Kids", relating to key content was shown during the first lecture of the unit 'Contemporary Perspectives of Childhood'. Students responded positively to the content, but the viewing of it took up teaching time and therefore only a limited excerpt (about 10 minutes) was able to be viewed. Students were then asked to comment on the

video via an on-line blog discussion. A very limited number of comments were posted (3 postings) and there was no ongoing discussion about the content noted by the educator.

At the beginning Autumn 2010 the lecturer decided to trial Vimeo video sharing services using the same video to see if this method produced more engaged learning. Three segments of educational video titled "Consuming Kids" was uploaded and the e-leaning officer used the embedded code to post it in discussion blogs inside vUWS e-learning site (BlackBoard). The aim was to see if this was a more appropriate and useful reflective tool for students and to stimulate on-line participation.

Methodology

This quantative and qualatative study focused on student use of digital video embedded in blogs in our e-learning site (vUWS) as an engaging approach to increase students participation. For this preliminary report, students who participated were asked to watch the videos and reflect on it posting a comment on the blog and also complete on-line survey. During the Autumn semester, there were a total of 66 students enrolled in the unit and every student participated. As part of the on-line work, students were able to visit the discussion section of the e-learning site, where we placed a blog with an embedded video, and to watch and discuss the vignettes with their peers. Contribution to the blog was non-compulsory. This unit was taught on two campuses, Penrith and Bankstown. Student's postings were recorded and compared to the quantity of postings from a previous year where the video was watched during class time.
Additionally, an on-line survey was developed using Google Forms and emailed to participants. This survey used a Likert Scale: strongly agree, agree, disagree, strongly disagree, respectively.

Questions were:
(Q1) The experience using digital video embedded inside blogs help me to understand better the subject.
(Q2) The use of digital video encouraged me to participate online and exchange ideas with my peers.
(Q3) I did not have technical problems playing the video.
(Q4) I will recommend using videos inside blogs in the future.

Findings

Increase of total number of discussion blogs

Quantitative data showed that the use of on-line digital video embedded in blogs caused a considerable increase in students' on-line participation During Spring 2009 there were 3 responses made by the 349 students enrolled yet in Autumn 2010 there were 123 on-line discussions despite (See Table 1) despite the much lower student numbers (66 students).This result indicates that the addition of video has a positive effect on our students' on-line participation. Although the student enrolment was over 5 times greater during Spring 2009, there was a significantly larger number of discussion responses when we used digital video in Autumn, 2010. Preliminary results showed a willingness by students to engage in on-line discussion after exposure to the digital video. Results clearly reflected a significant increase in students experiences when digital video was included in blogs inside the e-learning site (vUWS).

Table 1: Number of student's comments in blogs inside vUWS e-learning site

	Spring 2009 *	Autumn 2010**
Total number of students enrolled	349	66
Blog comments	3	123

* Video was played during classroom time.
** Video was embedded in blogs inside e-learning site.

Meaningful learning

Bluic et al, (2009) noted that students who use discussion as an opportunity to improve their understanding on the topic felt they had more meaningful learning. Wenger (2001) also believes that an experience will be educationally valuable when it comprises of complex dialogue within a shared framework. Our students also reported an increase in positive feelings around the course content when they engaged with discussions following the viewing of the video. Survey question one (see Table 2) asked students if using digital video embedded inside blogs helped them to better understand subject matter. The majority of the participants found that the inclusion of digital video in blogs helped them to make more meaning of subject matter (42% agree and 48% strongly agree). The perception was that the use of digital video encouraged students to participate online and exchange ideas with their peers and therefore engage in learning that was meaningful. This result replicate those found by those of Ryan & Scott (2008) who undertook research between the years of 2002-2007 at the Australian Catholic University. They also noted that the most students agreed that their learning experiences were enhanced with the advent of on-line discussion blogs.

Table 2: Students' experience using digital video embedded in blogs

Questions	Strongly Agree (%)	Agree (%)	Disagree (%)	Strongly Disagree (%)
Q1. The experience using digital video embedded inside blogs help me to understand better the subject.	48	42	5	5
Q2. The use of digital video encouraged me to participate online and exchange ideas with my peers.	55	35	5	5
Q3. I did not have technical problems playing the video.	50	45	5	0
Q4. I will recommend using videos inside blogs in the future.	45	45	5	5

The idea of improved quality of learning was also reflected in the on-line discussions where students commented positively on their own learning experiences.

> Jessica: I had a couple of friends come around with their kids for a play date and I ended up putting this video on for them to watch. We watched and talked about what this meant to us as parents.

> Laura: It was good being able to share my thoughts on-line. I found I was able to really understand what the video was about.

Flexibility

As previously outlined many students at UWS have competing schedules. When asked to discuss on-line their experiences with this unit researchers found that the majority of comments centred on the advantages of flexibility and availability of the video. The on-line video and discussions allowed more time for students to tend to their competing demands (Arthur et. al., 2006). Student's comments included:

> Fiona: I really liked being able to watch the video at home after work in my pyjamas while laying on the lounge.

> Tina: It was great being able to watch the video over and over or stop and pause to take notes.

Kathleen: It was a helpful video and watching it didn't use up class time.

Their findings are similar to those regarding the students in a study conducted by McLoughlin, Broadbent & Boyle (2004) at the University of Canberra, who found that on-line communication boards which were open 24 hours a day and 7 days a week provided a high degree of flexibility and therefore increased participation. The availability of the video and following on-line blog discussions similarly fitted in with our student's work and study schedules and enabled them to participate in work which they previously may not have been privy access to.

Equal opportunity for all to participate in discussions

This study found that the online discussions allowed participants who do not speak in classes for a number of reasons an opportunity to participate in discussions (Bradford-Smith, Smith, & Boone, 2000,). Ryan & Scott (2008) also noted that there was evidence that preservice teachers became engaged in discussions and interacted effectively when students were given equal opportunity to participate. A student in this study noted:

> Rawha: It was good being able to share my thoughts on-line. I'm too shy to talk in class and this gave me a chance to give my opinion.

Technological considerations

Only 4 students reported technical problems through on-line discussions with playing the videos and it was related to an Adobe Flash version. The e-learning technical officer contacted them by e-mail and gave them the instructions on how to solve this issue.

Example comments include:

> Tina: How the hell can I get this to work?

Further, when asked to indicate on the survey if they agreed with the statement that they did not have any technical problems playing the video only 5% of students indicated they had issues. This small number of technical difficulties shows that processes of both Vimeo and the one provided in this unit successfully enabled students the opportunity to watch the set video and successfully respond to discussions.

Student recommendations

Ninety percent of students recommended the use of this approach (45% agree and 45% strongly agree). Students themselves feel that the quality of learning was enhanced through the use of video that the flexibility enabled through this learning style and the opportunity for all students to have a voice were positives of this pedagogical practice. Student commented that they wished that there were more opportunity to watch videos on-line and that this style fitted in with their busy schedules. Researchers noted only minimal technological difficulties.

Conclusions

Based on this preliminary report, the use of digital video content in open-ended blog discussions increased students participation and provided opportunities for engaging students in on-line collaboration via blogs. These discussions may lead to knowledge construction which enhances the learning process and learning experiences for our students. We believe that promoting this on-line learning approach amongst both teaching staff and students in the School of Education will have a positive impact on engaging students, promoting reflection and collaboration, and consolidating students' learning processes.

Subsequently, indications from this preliminary study into the usage of on-line digital video for

students at UWS suggest a further comprehensive study is required. The next phase of this study is currently taking place and includes content analysis of postings, student's attitude survey and reflections about on-line discussions. This study will end in December 2010 and the results will generate a journal paper in 2011.

References

Abell, S. and K. Cennamo, Eds. (2004). Videocases in Elementary Science Teacher Preparation. Advances in Research on Teaching. New York, Elsevier.

Arthur, L., Beecher, B., Elliott, R., and Newman, L (2006) E-learning: Do our students want it and do we care? Proceedings of the 23rd annual ascilite conference: Who's learning? Whose technology?

Bliuc, A., Ellis, R., Goodyear, P., & Piggott, L. (2010). Learning through face-to-face and online discussions: Associations between students' conceptions, approaches and academic performance in political science. *British Journal of Educational Technology*, *41*(3), 512-524.

Bradford-Smith, S., Smith, S., & Boone, R. (2000). Increasing access to teacher preparation: The effectiveness of traditional instructional methods in an online learning environment. *Journal of Special EducationTechnology, 15*(2), 37 - 50.

Brophy, J., Ed. (2004). Advances in Research on Teaching. Using Video in Teacher Education. New York, Elsevier Science.

Buckingham, J. (2005). "Good Teachers Where They are Needed." Issue Analysis **64**.

Columbo, M. and Columbo, P. (2007). Using Blogs to Improve Differentiated Instruction Education Digest **73** (4)10-14.

Dhonau, S. and D. McAlpine (2002) "Streaming Best Practices: Using Digital Video-teaching Segments in the FL/ESL methods course." Foreign Language Annals **35**(6): 632-635.

Dymond, S. K. and J. L. Bentz (2006). Using Digital Videos to Enhance Teacher Preparation. Teacher Education & Special Education, Teacher Education & Special Education. **29:** 98-112.

Fishman, B. (2000). "Linking On-line Video and Curriculum to Leverage Community Knowledge." Advances in Research on Teaching **10**: 201-234.

Jacobs, J. K., Kawanaka, T. & Stigler, J. W. (1999). "Integrating Qualitative and Quantitative Approaches to the Analysis of Video Data in Classroom Teaching." International Journal of Education Research **31**: 717- 724.

Kamens, M. (2000). "Pre-service Teacher Support: collaborative experiences in a technology training partnership." Action in Teacher Education **22**(2): 39-44.

Ludd, C. & Volet, S. (1998) Barriers to studying online for the first time: Students perceptions. http://www.ascilite.org.au/aset-archives/confs/edtech98/pubs/articles/lund.html

McLoughlan, C., Broadbent, C and Boyle, M (2004) Developing expertise and intrapersonal practitioner reflection in a web environment. http://www.aare.edu.au/04pap/

Newhouse, C. P., Lane, J.,& Brown, C. (2007). "Reflecting on Teaching Practices using Digital Video Representation in Teacher Education." Australian Journal of Teacher Education **32**(3): 1-12.

Otero, V., Peressini, D., Anderson-Meymaris, K., Ford, P., Garvin, T., Harlow, D., Rediel, M, Waite, B., & Mears, C. (2005). Integrating technology into teacher education: A critical framework for implementing reform. *Journal of Teacher Education, 56* (1), 8-23.

Rhine, S. and J. Bryant (2007). Enhancing pre-service teachers' reflective practice with digital video-based dialogue. Reflective Practice, Routledge. **8:** 345-358.

Ryan, J, and Scott, A, (2008)Integrating technology into teacher education:How online discussion can be used to develop informed and critical literacy teachers Teaching and Teacher Education 24 1635–1644

Sawyer, W (2007). "New/small news in the English curriculum", English in Australia, 42:3, pp. 43-54.

Schon, D. (1987). Educating the reflective practitioner: Toward a new design for teaching and learning in the professions. San Francisco, California, Jossey-Bass.

Smith, R. (2000). "The future of teacher education: theory and practice." Asia-Pacific Journal of Teacher Education **28**(1).

Stigler, J. W. and Hiebert, J (1999). The teaching gap: best idea from the world's teachers for improving education in the classroom. New York, The Free Press.

University of Western Sydney (2003). *Greater Western Sydney Regional Profile*. University of Western Sydney.

VideoAktiv (2008). Handbook on digital video and audio in education. Creating and using audio and video material for ducational purposes. T. V. Project. Glasgow, VideoAktiv.

Volery, T. & Lord, D. (2000) Critical success factors in online education. *The International Journal of Educational Management.* 14 (5) pp.216 – 233.

Wenger, E., (2001) Supporting Communities of Practice: a survey of community oriented technologies. http://www.ewenger.com

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