



Making it real - from the street to the online classroom in police education: what is the impact on student learning?

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The design and delivery of effective learning experiences in foundational police practice studies for distance education students is complex and challenging. The many and varied capabilities of computer technologies, in particular the online environment is providing a conduit to connect distance education students with authentic, situated learning experiences and providing a nexus between face to face and distance education police subject delivery. This paper describes the design and implementation of an online module in police investigation studies by Charles Sturt University School of Policing for NSW Police recruit students and the student evaluation of the learning experience. Key findings from the evaluation suggests that online learning delivery which utilises real-time policing scenarios connected the student to the reality of their chosen profession and was preferable to traditional print based curriculum delivery. Further findings from the evaluation informs on future design considerations and the connection between learning opportunities and technologies, a focus of ASCILITE 2010. Importantly, students also suggested that the interactive design of the online modules was compelling, engaging, provided for diverse learner styles whilst allowing for individual rate of progress without fear or favour.

Key words: authentic, situated learning; online environment; virtual; policing

Introduction

In New South Wales police recruit training is provided by a partnership between Charles Sturt University, School of Policing Studies and the NSW Police Force. Policing students undertake the study of the Associate Degree in Policing Practice (ADPP) over a period of five sessions of study of three months duration. Session One and Session Two are undertaken whilst a student at the NSW Police College and on completion, the student officer is employed as a Probationary Constable and undertakes Sessions Three, Four and Five through distance education mode whilst working at their designated police station. In recognition of the global demand across an increasing number of professions to provide accessibility to learning and career choices, policing students may choose to undertake Session One by distance education mode. The consequence for curriculum delivery is to narrow the disparity in learning experiences so as to provide an equal knowledge platform at the commencement of Session Two for all students. Whilst acknowledge that utilising virtual online environments is not new to the educational arena as reported by Ahlberg, et. al. (2002) Arrowsmith, Counihan & McGreevy, 2005; Chen, (2006) Cochrane, 2004; Herrington, J, Oliver, R., & Reeves, T.C., (2003); O'Reilly's (2002); Stuckey-Mickell & Stuckey-Danner,(2007), it is noteworthy that this

mode of delivery is unique in the world of initial police recruit training where distance education students and face to face on campus recruit students learn in parallel study programmes.

Answering the challenge

Currently there is a plethora of creative curriculum delivery designs being implemented within the ADPP as the programme moves rapidly to embrace the capabilities of technology to provide best practice in curriculum delivery, student learning and experience. The Session One distance education subject, Investigations in Policing (PPP102) is no exception. Pivotal to the resultant response to enhance the learning experience of students undertaking PPP102 was consideration afforded to the suggestion by Knowles (1990) that adults learn new knowledge, understandings, skills, values and attitudes most effectively when they are presented in the context of application to real-life situations. In the field of law enforcement education and training there is overwhelming support for contextualised, authentic learning experiences which provide opportunity to 'practice' the application of newly acquired knowledge and skills. (Cope, 2007; Stranberg, 2005). Herrington, Oliver and Reeves (2002) conclude that exposure to learning environments which resemble real life will enhance student learning and it therefore follows that learning contexts and activities should simulate conditions and experiences which allow students to gain contextualized application of their knowledge and understanding (Davies, 2010).

A further concept which influenced the design of the online module under discussion here was the embodiment within the authentic learning environments of problem solving as a pivotal element which provides opportunity for engagement and application of learning. The core characteristics of problem solving (Andre, 1986) require mental and behavioural activities to deal with problems which may involve the combination of cognitive, emotional, behavioural and motivational components. Problem based learning, specifically in police training according to Cleveland (2006) is a teaching or training method characterized by using real world problems so students can learn critical-thinking and problem-solving skills and acquire knowledge. It is timely here, to briefly clarify the perspective of virtual learning and e-learning environments from which the PPP102 module has been constructed. As Martin Addison (2010) reports the term 'e-learning' has been defined as "learning that is delivered, enabled or mediated using electronic technology for the explicit purpose of training in organisations. The construction of the PPP102 online module builds on the work by Davies (2010) whose platform for developing fire investigation delivery encompassed the elements of the virtual environment as recognized by Heaperman and Sudweeks (2001), Paulsson and Naeve (2006); Stuckey-Mickell, & Tuckey-Danner, (2007) that a VLE is any groupware specifically developed for the educational context that makes use of networking technologies and learning tools and is an environment which provides learners with the facilities to manage their own learning experience(pp.9-10). It is the work of Wilson (1997) who proffered that a virtual learning environment is "a computer-generated model where the participant can interact intuitively in real time with the environment or objects within it, and to some extent has a feeling of actually 'being there', or a feeling of presence" (p.1057-1058).that has guided the inclusion of elements within the online PPP102 module.

The PPP102 module

The learning goals for the module were to provide opportunity for students to acquire knowledge and skills in the application of the Scientific Method of Investigation (Osterburg & Ward, 1992, p.337). The Scientific Method is a keystone concept for police investigation training designed to encouraged students to develop a critical thinking mindset in seeking out the truth through the utilization and analysis of all available evidence whilst remaining objective and unbiased (Davies et al., 2009, pp.26-30). The framework for the PPP102 online module is centered on a real time police incident, a motor vehicle collision near the New South Wales country town of Yass. The module design includes a variety of learning activities to cater for a range of learning styles i.e. following text instructions, analyzing real life photographs, completing written tasks, answering multiple choice questions and providing justifications for the answers chosen, listening to, analyzing and taking notes from recorded interviews and using reasoning from the information gathered to form a defensible conclusion. The module guides the student learning through a range of interactive elements, examples of which include: accessing audio of police radio calls from the NSW Police Communications Centre, audio recordings of witnesses interviewed at the crime scene, photographic compilations of the crime scene, video clips of the crime scene, police officers arriving on the scene. To enhance the contextualization

all terms and procedures strictly adhere to current NSW Police policy and all depictions are of the real crime scene.

Evaluation

Anecdotal evidence suggests that in 2010, in the helter skelter to embrace technology in the educational environment, the underpinning pedagogical platforms which inform the design and use of simulation technologies for educational purposes are of secondary importance, overridden by the glamour of emergent captivating technologies. Arguably, there is a wealth of literature, for example the extensive work of, Akerlind & Trevitt, 1999; Dalgarno, 2001; Hawryszkiewicz, 2002; Merrill, 2007; Rieber, et al 2004 the focus of which is the use of technology assisted simulation in learning environments. An evaluation survey was included in the PPP102 module design in recognition of the importance for academics, educational designers and change agents to focus on (a) accommodating the needs and expectations of their future clients, i.e. the student, and (b) maintaining a consistent vigilance to understanding the student learning experience in utilising the online environment for the delivery of curriculum. The focus of the survey was to understand (1) the extent to which the design of the module incorporating real time police incidents provided an authentic situated learning experience, with a sense of 'being there'; and (2) the impact on student learning experiences with the move from print based to online curriculum delivery. Mindful that distance education students are 'time poor' and to encourage participation with the survey, questions were kept to a minimum. The total number of students in the cohort = 46, the number of responses for Questions 1- Question 5 was 25 responses for each question.

Results

Question (1) Have you done any previous online learning before? What type? This question was designed to establish an understanding of the students' familiarity with the online environment. Interestingly, although not surprising, as the NSW Police recruit cohort historically is reflective of society generally, encompassing students from diverse educational and cultural backgrounds, 3 of the 25 respondents had familiarity with the online learning environment. These figures assist in placing the results of the survey into perspective.

Question (2) what did you like about the module? Table 2 provides a selection of the responses. These responses indicate that the online environment is capable of supporting the notion expounded by Knowles (1990) that adult learning is enhanced when presented in the context of application to real-life situations. Further, the responses support the concept that the online medium has the capacity to provide learning environments in which students have a sense of 'being there'.

Table 2: Question 2: What did you like about the module?

<p>"..the fact that there are interactive parts to it (audio clips etc) allows the learning to be better assimilated",</p> <p>"Using a real life accident, places the student in the moment and demonstrates the seriousness of the issues at hand."</p> <p>"I really liked the use of audio and the examples were great- allowing the theory to be put in to context".</p> <p>"The use of audio and a scene gives the exercise a degree of realism, an example that would be encountered whilst performing operation duties."</p>
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Finding 1: The online environment provides the conduit for contextualised learning experiences which support knowledge acquisition in foundational policing practices.

Question 2 responses (Table 3) revealed valuable insight into elements of learner preferences for design aspects of online curriculum delivery. A predominant preference indicated by students was for activities which require the learner to test their knowledge through application, allowing the student to (1) gauge their knowledge acquisition (2) and correct misunderstandings as they progress through the activities. Instantaneous feedback on progress was also indicated by students to be beneficial to the learning process (as indicated in Table 4).

Table 3: Responses which indicated a preference for the answers to questions being revealed following a submission

“..I liked how you had us think of the ideas first before giving us the answers... I liked that the answers were not there in front of our faces.”
“It allowed me to resolve the problem almost completely without others (say in a class room) blurting out all the answers.”
“I liked how there were choices of answers to see if you are on the right track.”
“I thought it was good that it gave us a chance to respond in a way to ‘test’ ourselves.”

Table 4: Responses indicating the benefits of instantaneous feedback on the submission of answers

“Being able to compare results with the programme gives the student instant feedback and direction.”
“I thought it was good that we actually received the answers, it let us know straight away if we were going down the wrong track so we could fix our mistakes.”

Questions (3) and (4) and (5) focussed on seeking student perspectives on the overall satisfaction with the online learning module, suggestions for enhancement and indications of preference for online vs print based curriculum delivery.. Interestingly, 24 of the 25 respondents agreed that there was no aspect of the online module they did not enjoy. One student suggested that they preferred printed materials as they travel for work and it is easier to access the print material than computer based material. A selection of indicative responses to questions 3, and 4 are found in Table 5.

Table 5: Q3: What did you not like about the module? Q4 How does it(the online module compare to just doing the learning with print material?

Q3: “I enjoyed all facets of the module.”
“There was nothing I did not like about it, it gave the information in simple easy to understand format.”
Q4:”It is of benefit as it is a different way of learning ...holds greater interest in the material as it is what has actually happened not just learning material that you have to imagine how it will be applied.”
“I think the module is better set out and makes your mind go through the process of the scientific method and critical thinking with an actual event that has taken place, rather than just reading text after text without putting the thought process into practice.”

Question (5) Do you have any suggestions about how to make the online module better? Here 22/25 students indicated a preference for modules of a similar design in their distance education studies.

Conclusion

This paper has presented the students response to learning foundational policing concepts via the online medium. The student voices provide sound support for the future development of online modules for the delivery of key policing studies which integrate real time policing incidents and best practice police response processes in the online environment.. The findings from this preliminary online design, delivery and evaluation project whilst supporting previous studies in this arena as exemplified by Herrington, Oliver and Reeves (2002) further suggests that online real time based activities for distance education curriculum delivery is preferable to traditional print material . The important aspect identified here is that continuous evaluation of the endeavours of integrating technology in the delivery of curriculum provides valuable insight for academic developers, educational designers and change agents in meeting the needs of diverse learner student cohorts. For the future, the impact of the student experience with the PPP102 online learning module will not be revealed until the current learners, subjects of this discussion, join with their colleagues from the internal face to face cohort in Session Two of the ADPP at which time differences in learning uptake will be more readily measurable.

References

- Addison, M. (2010). Putting the 'learning' back into e-learning. www.trainngjournal.com March. 17.
- Akerlind, G.S. & Trevitt, A.C. (1999). Enhancing self-directed learning through educational technology: when students resist change. *Innovations in Education and Teaching International*. 36(20), 96-105. <https://doi.org/10.1080/1355800990360202>
- Andre, T. (1986). Problem solving and education. In G.D. Phye & T. Andre (Eds.), *Cognitive classroom learning understanding, thinking and problem solving*. New York: Academic Press.
- Arrowsmith, C, Counihan, A and McGreevy, D (2005), "Development of a multi-scaled virtual field trip for the teaching and learning of geospatial science", *International Journal of Education and Development using Information and Communication Technology*, Vol 1 No 3, URL <http://ijedict.dec.uwi.edu/viewissue.php?id=5>.
- Chen, C.J. (2006). The design, development and evaluation of a virtual reality based learning environment. *Australasian Journal of Educational Technology*. 22(1), 39-63.
- Cleveland, G. (2006) Using problem-based learning in police training. *Police Chief Magazine*, 73(11). ,
- Cochrane, T. (2004). Interactive QuickTime: Developing and evaluating multimedia learning objects to enhance both face to face and distance e-learning environments. In R. Atkinson, C. McBeath, D. Jonas-Dwyer & R. Phillips (Eds), *Beyond the comfort zone: Proceedings of the 21st ASCILITE Conference* (pp. 201-211). Perth, 5-8 December. <http://www.ascilite.org.au/conferences/perth04/procs/cochrane.html>
- Copay, A.G. & Charles, M.T. (2001). Handgun shooting accuracy in low light conditions. *Policing: An International Journal of Police Strategies & Management*, 24(4), 595-604.
- Cope, C.J. (2007). Enhancing use of force training. *The Journal of California Law Enforcement*, 41 (3), 6-7.
- Dalgarno, B. (2001). Interpretations of constructivism and consequences for computer assisted learning. *British Journal of Educational Technology*. 32(2), 183-194.
- Davies A.(2010) *Reusable digital learning objects: What is their impact on learning*. Lampert Academic Publishing, Germany.
- Davies, A., Mullan, B., Nixon, J., O'Connor, G., Stefanovic, M., & Wooden, K. (2009). *Investigation & communication in policing 1*. [PPP102 Study Guide/Residential School Workbook]. Wagga: Charles Sturt University.
- Herrington, A.J., Oliver, R. & Reeves, T.C. (2003). Patterns of enquiry in authentic online learning environments. *Australian Journal of Educational Technology*. 19(1), 59-71.
- Knowles, M.S. (1990). *The Adult Learner: A Neglected Species*, (4th ed.). Texas: Gulf Publishing Company.
- Merrill, M.D. (2007). A task-centered instructional strategy. *Journal of Research on Technology in Education*. 40(10), 5-22. <https://doi.org/10.1080/15391523.2007.10782493>
- O'Reilly, R. (2002). You can lead a student to water, but can you make them think? An evaluation of a situated learning environment: An Ocean in the Classroom. *Australian Journal of Educational Technology*. 18(20), 169-186. <https://doi.org/10.14742/ajet.1754>
- Osterburg, J., & Ward, R. (1992). Reconstructing the past: Methods, evidence, examples. In *Criminal investigation: A method for reconstructing the past*. Cincinnati: Anderson.
- Paulsson, F. & Naeve, A. (2006). Virtual Workshop Environment (VWE): A taxonomy and service oriented architecture (SOA) Framework for Modularized Virtual Learning Environments (VLE) – applying the learning object concept to the VLE. *International Journal of E-Learning*. 5(1).
- Rieber, L.P., Tzeng, S., & Tribble, K. (2004). Discovery learning, representation, and explanation within a computer-based simulation: Finding the right mix. *Learning and Instruction*. 14, 307-323
- Strandberg, K.W. (2005). Simulating reality. *Corrections Forum*, 14(4), 48-50, 52.
- Wilson, J.R. (1997). Virtual environments and ergonomics: needs and opportunities. *Ergonomics*. 40(10). <https://doi.org/10.1080/001401397187603>

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