

Deakin University and Online Education

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Please note that at the time of submitting this paper, the proposal of project had been submitted to the Faculty of Business & Law and was awaiting approval. Human ethics clearance as part of the University's and Australian privacy laws requirement for the project had already been obtained.

THE RISE OF E-LEARNING TECHNOLOGIES AND CHANGES IN STUDENT LEARNING

Electronic learning (e-learning) is an approach to facilitate and enhance learning through information and communications technology. For the purpose of this project, the authors have adopted the Mills, Eyre and Harvey (2005, p.45) definition of e-learning, "effective learning processes created by combining digitally delivered content with (learning) support and services". The equipment and software (such as computer software and hardware) that are used in this endeavour are collectively referred to as e-learning technology. It is anticipated that by adopting and practicing e-learning technologies, a University would be able to address the knowledge thirst of higher percentage of learners, those who require flexible working hours due to their professional or personal commitments.

Our current students perceive information and learn in different ways compared with the past. There have been emerging debates about generation Y (also known as Millennials, Buckingham, 2006; Eisner, 2005) and the fundamental nature of thinking that is applied by people who are raised in an environment filled with digital media. The digital natives, as Prensky (2001) refers to them, seem to challenge teachers (referred to as digital immigrants) to address new learning needs. Such learners now need connection more than they need content. By this we mean that knowledge about how to conduct information search, how to manipulate metadata, how to connect from one digital device to another, becomes the majority of information that is needed to become proficient in a specialised field. In any given discipline, the answers to questions can be found in the sea of information by knowing how to search for it (for example Google the word or phrase). This usurps the need for memory of content that was required before the era of interconnected information. What is important to digital natives is not retention of memory of content, instead understanding of how to locate content quickly.

SCUP (2004) observes in United States generation Y students that nearly every one of them has a cell phone and access to instant messaging/text messaging wherever they are, and social networking software is increasingly becoming part of the online experience [see also Miller, 2006]. The implication is that learning should occur through dominant media. As digital devices transform to become e-learning technologies, there is a ready generation of learners eager to have their experience through such devices. Accordingly, to retain their current and attract future students, a number of Australian universities are allocating millions of dollars for upgrading and installing new technologies to support e-learning initiatives (Alexander, 2001) or else they prospect losing their global competitive market.

CHANGES IN TEACHING AND LEARNING

We have applied the 'full circle' metaphor intentionally in our study to remind ourselves of the cyclical nature of information flow and the evolutionary nature of understanding in any given teacher-learner relationship. Over the centuries education institutions have moved from an oral culture to a written one nonetheless even in this digital age the importance of coherent words has only gained more importance to communicate well.

Kolb (2000) has suggested that digital media (e-learning technologies) have destructive elements that must be consciously harnessed and controlled if they are to be turned into educational value. This appears to suggest that good manage-

ment education can occur online, despite the risk that the online experience could manifest inferior to traditional classroom opportunities to interact face-to-face. As a result, educators often need to intervene in online education to be sure critical thinking emerges as an accurate response. Our experiences online tend to support this fact. People can react quite emotionally to subtle variance in application of language. Post a discussion thread message with a word that can be interpreted ambiguously, and the flame begins. Alternately, to leave an online classroom unattended for very long ensures students will feel ignored and the associated social ructions can manifest in that environment.

THIS PROJECT

The newest generation of learners in Australia and beyond have been raised on a diet of new media technologies leaving some observers wondering if the very processes of learning are being altered by this digital ground shift. The aim of the research is to gather information regarding the usage of e-learning technologies used by staff and students at Deakin University. Identifying the 'maturity' of various e-learning technologies being used within the "educational delivery [and] understanding learner needs and preferences towards e-learning" has also been highlighted as an area for future research by Pittard (2004, p.186). Most of the student respondents will belong to generation Y and may be categorised as digital natives.

The objectives of this research project are to:

- Identify best practice methods of online teaching models using e-learning technologies
- Identify challenges accompanied with improving teaching and learning via e-learning technologies, and
- Recommend guidelines and a model for improving teaching and learning via e-learning technologies.

Universities around the world are incorporating e-learning technologies within their curriculum. Deakin University is part of this change and is one of the Australia's leading distance education and online teaching universities. Deakin's commitment to online teaching and learning can be reiterated by the recent directive from its Vice Chancellor that all students need to complete a fully online unit to graduate. Universities, students and academics as stakeholders all benefit from this initiative and collaboration. A university can sell the flexibility of its online courses to gain a larger market share by targeting both full time and mature age students. It can also be argued that by forcing students to complete one fully online unit, in addition to addressing one of its graduate attributes, the university is also teaching its students computer/IT skills. People from generations X have realised that learning and using IT has become a prerequisite for their survival and advancement both in their professional and personal lives.

When academics use technological tools as part of their teaching, the students regardless of their generation benefit from getting more efficient, prompt and timely feedback on their assessment tasks. IT also allows both academics and students to communicate with each other in a virtual environment hence addressing one of the major concerns of off-campus or distance students, losing information and contact with their academics and peers due to their respective mode of enrolment. Online technology nevertheless may act as a double-edged sword for academics. On one hand, academics like their mature age students are forced (or in some instances motivated) to learn about how technology can be used to enhance teaching mediums and bridge the gap between them and their current students. On the other hand, many academics complain about the entire activity being time consuming and a steep learning curve without much assistance from the university.

The emerging landscape of e-learning technologies has the potential to fragment online delivery options. Wireless applications are testing the traditional definition of online, however, the functional aspects are synonymous in the sense that inter-networked digital learning objects are the content delivered through this media. At the heart of any operational change will be the need to stay focused on good quality teaching practices. The question accordingly is, 'What constitutes good education in the online and e-learning context and how can a university such as Deakin maintain or improve its standards and competitive advantage?'

This project will focus on the current e-learning teaching practices used by Deakin University academics in order to identify a best practice framework. It will also recognize the challenges experienced by academics using these e-learning technologies and when attempting to improve the quality of teaching. The project will also look at the benefits and challenges of using e-learning technologies as experienced by Deakin's students. Findings of the research will result in a set of guidelines and a model for improving quality of delivery via e-learning tools.

RESEARCH METHODOLOGY

To obtain a 'full circle' perspective on e-learning applications, we decided to research the views of both academics and students. We are in the process of finalising questions for staff questionnaire and students focus group procedure in order to capture the data snapshot.

Staff Questionnaire Survey

Questionnaire survey will be administered to Faculty of Business & Law, Deakin University academics to obtain feedback on a number of key variables in relation to e-learning technologies. Questionnaire surveys have been described by Ferber et al (1980, as cited in May 1993, p.65) as "a method of gathering information from a number of individuals, a 'sample', in order to learn something about the larger population from which the sample is drawn". Questionnaire surveys, as a deductive methodology with time, have gained an edge over other research techniques such as door-to-door surveys or telephone interviews (Spencer, 1982). One of the reasons behind their wide spread use is that the results obtained can be exhaustively analysed by the use of sophisticated computer software packages. Moreover, the assurances of anonymity and confidentiality (Jobber & O'Reilly, 1996; Jobber & Sanderson, 1983; and Jobber, 1986) increases the rate of getting true responses from the respondents that are not achieved for instance by telephone surveys (Peil et al, 1982).

Muller & Miller (1996); and Jobber et al (1985) have provided examples of the benefits of usage of questionnaire over phone surveys. Nonetheless, before undertaking this methodology, a researcher needs to be also aware of its weaknesses (see Jobber, 1989; Herberlein & Baumgartner, 1978; Lewis, 1997; and Inguanzo, 1997).

Student Focus Groups

As no previous research had been undertaken in this specific area, focus groups were chosen as a methodology for students as an exploratory technique was required. Researchers are increasingly using focus groups to "identify issues and attitudes [and to] see how various people from the group respond to other's position" (Bouma, 2004, p.182). As opposed to directing one-on-one questions as in case of interviews, during a focus group the facilitator asks an open question to the group and observes the group responses and dynamics. The facilitator nonetheless needs to be careful to not intervene and bias the group discussion from previous knowledge, experience or background. Keeping in view focus group advantages (Ghauri & Gronhaug, 2005; Veal, 2006; and Morgan, 1997) and drawbacks (Ghauri & Gronhaug, 2005; and Morgan, 1997) focus groups can be used to raise and pilot new ideas.

NEXT STEP ...

In views of the authors, e-learning technologies are both consolidating and proliferating the universities and academics environment. IT is allowing people from diverse backgrounds and age groups to come together and learn new skills and secure more degrees. Simultaneously, e-learning technologies are proliferating as both technologies and learning methods are constantly changing.

Our project will take a foundational view of education, as identified by researchers such as Dewey (1963) and Alexander (2001), in context with e-learning technolo-

gies and the concept of the digital native. Is knowledge of connection between media the kind of knowledge Dewey (1963) may have anticipated? Could it be that learners now have some kind of advantage over many of their teachers, simply by knowing more about how digital devices connect and sift metadata in a sea of information? Or does the teacher still retain the upper hand? Perhaps the role of experience simply cannot be replaced by connection? What use is connection to information if one does not have the experience or wisdom to know what to do with it? Knowledge of connection may just be another way of conceptualising rote memory. Biggs (2003, p.214) raises this very warning, suggesting that transmission of information does not in itself constitute learning. We will reflect upon these burning questions as the project evolves.

As the next step, the authors would like to explore the industry/practitioners views to fully close the 'circle' and identify whether the e-learning practices are of any use for them. The researchers would also like to replicate their study in other countries and universities.

REFERENCES

- Alexander, S. (2001) E-learning Developments and Experiences, *Education + Training*, Vol. 43, No. 4/5, 240-248.
- Biggs, J. (2003) *Teaching for Quality Learning at University*, 2nd Ed. Open University Press. Buckingham.
- Bouma, G., D. (2004), *The Research Process*, (4th edition), Oxford University Press, Victoria, Australia.
- Buckingham, M. (2006) Engaging Generation Y: An interview with Marcus Buckingham, *ASTD*, August, 27-30.
- Dewey, J. (1963) *Experience and Education*. London: Collier Books.
- Eisner, S. (2005) Managing Generation Y, *SAM Advanced Management Journal*, Vol. 70, No. 4, 4-15.
- Ghauri, P. and Gronhaug, K. (2005) *Research Methods in Business Studies*, (3rd edition), Prentice Hall, UK.
- Herberlein, T., A. and Baumgartner, R. (1978) Factors affecting response Rates to Mailed Questionnaires: A Quantitative Analysis of the Published Literature, *American Sociological Review*, Vol. 43, No. 4, 447-462.
- Inguanzo, J. (1997) Based on Response rates, Phone Surveys are Cheaper than Mail, *Marketing News*, Vol. 31, No. 1, 15.
- Jobber, D. (1989) An Examination of the Effects of Questionnaire Factors on Response to an Industrial Mail Survey, *International Journal of Research in Marketing*, Vol. 6, 129-140.
- Jobber, D. (1986) Improving Response Rates in Industrial Mail Surveys, *Industrial Marketing Management*, Vol. 15, 183-195.
- Jobber, D., Allen, N., and Oakland, J. (1985) The Impact of Telephone Notification Strategies on Responses to an Industrial Mail Survey, *International Journal of Research in Marketing*, Vol. 2, No. 4, 291-296.
- Jobber, D. and O'Reilly, D. (1996) Industrial Mail Surveys: Techniques for Inducing Response, *Marketing and Intelligence Planning*, Vol. 14, No. 1, 29-34.
- Jobber, D. and Sanderson, S. (1983) The Effects of a Prior Letter and Coloured Questionnaire Paper on Mail Survey Response Rates, *Journal of the Market Research Society*, Vol. 25, No. 4, 339-349.
- Kolb, D. (2000) Learning Places: Building Dwelling Thinking Online. *Journal of Philosophy of Education*, Vol. 34, No. 1, 121-133.
- Lewis, O. (1997) Do Your Homework, *Successful Meetings*, Vol. 46, No. 3, 120-121.
- May, T. (1993) *Social Research: Issues, Methods and Process*, Open University Press, USA.
- McLuhan, M. (1964) *Understanding Media: The Extensions of Man*. Mentor, New York.
- Miller, J. (2006) Catching Generation Y, *CMA Management*, April, 13-14.
- Mills, J., Eyre, G., and Harvey, R. (2005) What makes Provision of e-learning Successful? Charles Sturt University's Experience in Asia, *Education for Information*, Vol. 23, No. 1/2, 43-55.
- Morgan, D., L. (1997) *Focus Groups as Qualitative Research*, (2nd edition), Sage Publications, USA.
- Muller, G., D. and Miller, J. (1996) Interviews make the Difference, *Marketing Research*, Vol. 8, No. 1, 8.
- Peil, M., Mitchell, P., K. and Rimmer, D. (1982) *Social Sciences Research Methods: An African Handbook*, Hloder & Stoughton, Great Britain.
- Pittard, V. (2004) Evidence for E-learning Policy. *Technology, Pedagogy and Education*. Vol.13. No.2, 181-194.

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Prensky, M, (2001) Digital natives, digital immigrants. On the Horizon, 9(5), 1-2. Available: <http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf> [viewed: 19 September 2006]

SCUP (2004) *Trends in Higher Education: November Ed.* Society for College and University Planning. Ann Arbor, MI

Spencer, D., L. (1982) *Researcher's Guide: How and Why*, College-Hill Press, USA.

Veil, A., J. (2006) *Research Methodology for Leisure and Tourism: A Practical Guide*, (3rd edition), Prentice Hall, UK.

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