

Promoting engagement and interaction through a technology supported learning activity

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In this paper we describe a technology supported learning activity that was developed, implemented and evaluated in a postgraduate, online unit of study offered by the University of New England in 2011. A learner analysis and an analysis of the learning outcomes of the unit informed the development of this activity. The online activity was created within a Wiki and students completed it in the first few weeks of the teaching period. This design was intended to build social presence by encouraging ongoing interaction and engagement in the unit. A constructivist approach was utilised to facilitate this authentic activity in line with theories for learning futures. The activity provided scaffolding for subsequent assessment tasks in the unit. Students' outcomes and their feedback on the activity suggested it was successful in achieving the intended goals.

Keywords: Engagement, interaction, learning futures, lifelong learning, online activity, social presence

Introduction

The focus of this paper is a technology supported learning activity that was adopted for the first time in trimester three, 2011. It involved the development and implementation of an optional online activity early in the teaching period which was aimed at encouraging interaction and engagement in a postgraduate professional ethics unit of study. The design was intended to align learning outcomes with assessment tasks. A constructivist approach was used to engage students in a discovery process aimed at development of skills intended to enhance future studies and lifelong learning. The use of such online collaborative spaces has demonstrated benefits for learners in terms of encouraging active learning (Chickering & Gamson, 1987), and experimental problem solving, thus enabling students to develop the skills required to construct their own understanding. This approach aligns with a learning futures approach which is about "education and learning which is concerned with preparing individuals and groups to respond to the challenge of life" (Kehrwald, 2006, p. 4). Andres (2002) suggests that in group learning environments "students are frequently more motivated to work when there is an audience beyond that of the teacher" (p. 2). Students were surveyed at the end of the teaching period to evaluate the success of this activity.

Activity development

Daigre (n.d) suggests that the "key to instructional design is to work around the participants rather than the content" (p. 1). Keeping this in mind, the design project began with consideration of the learners enrolled in the program of study. This analysis was conducted utilising statistical data available through the University's Planning Office, and a review of admission procedures for the program. A selection of previous offerings of units in the program was also examined to determine general participation rates and level of interaction as well as technological experience and access issues for the cohort. Finally, an analysis of the unit itself in terms of learning outcomes and content was undertaken to inform the activity design.

Learner analysis

Historical data shows that the cohort enrolled in this unit largely consists of mature-aged students. Statistics

show that almost 70% students are aged between 30 and 49. Gender distribution is relatively even. The unit (and the program) is offered in distance mode and online only at postgraduate level. The Graduate Certificate is the main entry point with almost 75% of students enrolled in this program. These students have completed an Advanced Diploma through TAFE, suggesting that a majority of students have limited experience studying in a tertiary environment, and they may have little or no experience in online studies. Admission requirements to the Masters program include completion of a three year degree or its equivalent in a relevant discipline, or completion of a Graduate Certificate in Professional Accounting. Entry into both programs requires at least two years full-time equivalent of relevant work experience and current associate membership of a professional accounting body. It can be assumed that students are familiar with the use of information technology applications as the unit is explicitly described as fully online, which implies students who enrol have a reasonable level of confidence and willingness to participate in studies using information technology as a means of delivery. Interestingly, the age range of the majority of students indicates that many will be 'digital immigrants' (Prensky, 2001), which could impact on the level of student interaction.

The program is a full-fee paying degree therefore personal motivation to succeed is high. While this is not the same as motivation to participate, it does indicate that students enrol in this program for personal benefit and self-improvement and, as such, would be interested in engaging in discussion activities with peers. A review of discussion boards in other units in the program supports this assumption. In addition, previous student feedback from a similar cohort revealed students' willingness to view material and multimedia resources online and to participate in discussion groups. However, students expressed concerns about participation in assessed group work, with a majority of students indicating that they would not 'enjoy' this type of task. Reasons cited included time and organisation issues, problems with participation levels and preference for individual submissions. This indicated that group activities would need to be carefully structured to encourage active participation and engagement.

Unit analysis

The unit of study – Professional Ethics – is offered online through a Learning Management System (LMS) accessible via the Internet. It is a compulsory unit in both the Masters and Graduate Certificate programs, so all students are required to complete the unit successfully to ensure progression. Ethical theories and concepts are an integral part of the content, with the main outcomes of the unit dependent on knowledge, understanding and application of these theories – *'identify and explain major ethical theories and concepts'* and *'employ ethical theories and concepts to analyse particular business activities'*. The content lends itself to the use of constructivist, authentic activities, particularly those which enable students to use knowledge relevant to their own situations (Brown, Collins & Duguid, 1989). In addition, to achieve graduate attributes relating to the unit, students are required to demonstrate communication and lifelong learning skills. The design of this activity was intended to address these attributes by "the development of...transferable skills, such as the ability to work with others and the development of written...communication skills" (Crowe & Pemberton, 2000, p. 1). The unit is one of the most challenging students complete in their programs as it requires critical engagement with the materials. Students are required to demonstrate their mastery of the content by developing and defending their own points of view with regard to contentious issues related to professional practice. Since there are very few 'black and white' solutions, the content is intellectually demanding.

Activity design

The activity was developed within the Wiki tool built into the LMS. This provided an asynchronous, collaborative space which displayed a structured view of postings which were utilised for further discussion surrounding the activity. As the unit enrolment was high, larger groups were necessary (n=8 to 10) but the group size was still considered small enough to assist in developing accountability as well as making the task more manageable (Harasim, Hiltz, Teles & Turoff, 1995, p. 30). As students did not have extensive experience in online studies, guidelines were provided which were intended to assist students in understanding the mechanics of the activity in terms of using the embedded Wiki tool. An example was also provided to demonstrate expectations.

The rationale for choosing this type of activity was to meet the following goals:

- Encourage students to interact more fully by developing social presence in the online unit early in the teaching period
- Engage students in the materials, by illustrating the 'real world' application of the ethical theories
- Provide an opportunity to work in groups and experience other points of view

- Provide scaffolding for the subsequent assessment tasks, especially the major assignment
- Provide the unit coordinator with an early indication of students' understanding of the foundational theories and concepts

The activity consisted of an exercise with the following steps:

1. Group members were asked to describe a workplace-related ethical situation or dilemma about which they had first-hand knowledge (due at the end of week 2)
2. Each student then analysed this situation by employing one of the core ethical theories introduced in the unit (due at the end of week 3)
3. Each student was then required to use a different theory to analyse a situation posted by another member of the group (due at the end of week 4).
4. Group members were encouraged to provide comments on others' analyses (to be concluded by the end of week 5).

Lecturer support consisted only of guidance and management of technical issues. As noted by Oliver (2002): "Effective online learning settings support knowledge construction and to do this they must provide contextually-authentic tasks as the basis of learning" (p. 3). As the ethical theories were an integral part of the unit (as noted above) in terms of the stated learning outcomes, a knowledge of the principles behind several theories and their application was required in order for students to develop a broader view of how one might act when confronted with an ethical dilemma in the workplace.

The activity was structured in a way that aimed to develop learner participation and collaboration, in line with Salmon's (2002) model which "provides an example of how participants can benefit from increasing skill and comfort in working, networking and learning online" (p. 10). It was intended that this approach would create social presence for students and encourage active dialogue. The asynchronous nature of this activity also encouraged reflection and thoughtful construction of contributions (Martyn, 2003) as well as enabling flexibility for students in participation scheduling (Smith, 2005). This was considered particularly important because the students were studying part time while juggling family and work commitments.

The structure of the activity follows Reigeluth's Elaboration Theory in terms of organisation and providing a meaningful context for students to build on knowledge. While supporting content was provided, the activity enabled a learner-centred approach by allowing students to choose the ethical situations and theories they preferred to focus on. The various steps in the activity were intended to encourage student reflection and analysis, and achievement of the learning outcomes through the alignment of instruction, online interaction and the subsequent assessment tasks. Elements of experiential learning were also present in terms of participation in the learning process and tasks based on practical problems and self-evaluation, while the design utilised aspects of constructivism and situated learning, through the presentation of authentic and knowledge building tasks. The use of personal experience supported the authentic nature of the activities as did the application of knowledge to a problem presented by another student. The activity supports learning for the future through the development of skills and approaches which will be essential to the development of active learning skills.

Conclusion

For students in this unit, most of whom were already working in the disciplinary field, this design provided an authentic and learner-centred activity which "focuses on giving the learner the ability to decide what he/she feels is important and relevant. A more dynamic design approach is more reflective of the types of challenges individuals will face when learning through experience and other informal methods" (Siemans, 2005, p. 4).

This activity addressed critical elements of successful online learning identified by Reushle, Dorman, Evans, Kirkwood, McDonald & Worden in terms of "cognitive strategies, learner-centredness, interactivity, collaborative learning and social presence" (1999, p. 1). The activity provided scaffolding for following assessment tasks in the unit, which included an online test, essay and exam.

Evaluation of this task was obtained through a student survey, unsolicited feedback from students as well as a review of students' final results. Student surveys indicated that the activity was useful preparation for further assessment tasks (very helpful: 70%; somewhat helpful: 23%). Comments from students confirmed the benefit of higher levels of interactivity in the unit and the value of seeing others' points of view. Moreover, those students who participated in the optional activity were more successful in the unit overall than those who chose not to participate. Students who did not complete this activity, but completed the unit had an average mark of

55% while students who did complete the activity and completed the unit achieved an average mark of 66%. The activity also provided the unit coordinator with an early indicator of the level of understanding of the ethical theories than has been available in previous offerings of this unit, thus providing an opportunity for additional clarification where there were misunderstandings.

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