Using virtual meeting spaces for work integrated learning

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Work integrated learning activities provide students with the opportunity to apply the knowledge and skills they have developed through their tertiary education to authentic work place problems. This paper reports on the outcome of a virtual work integrated learning activity undertaken by third year IT students. Students used a synchronous communication tool to participate in meetings with their virtual teammates. They were required to produce minutes and a report of their meeting. The majority of students completed the exercise successfully with some student groups using the meeting facility for subsequent collaboration during the remainder of the unit.

Keywords: Work-integrated learning, Elluminate Live! synchronous communication, virtual teams.

Introduction

One of the aims of a university is to develop in its graduates the knowledge and skills to enable them to be valued employees in the workforce on graduation (Esposto & Meagher, 2009). Increasingly, employers expect graduates to come with knowledge and skills that allow them to transition seamlessly into the working environment (Frawley & Litchfield, 2009). Students generally enjoy the type of learning that takes place in a professional context. The contextualization makes the learning relevant and enhances student engagement (Frawley & Litchfield, 2009).

Work integrated learning (WIL) provides an opportunity for students to put their learning into practice through authentic experiences and challenges in a workplace environment. “WIL helps students to engage more deeply as they create meaning from content knowledge in an applied professional environment. It provides direction for career choices, an understanding of workplace culture, and a relevance that drives deeper learning” (Patrick, Peach, Pocknee, Webb, Fletcher & Pretto, 2008, p. 21).

Creating and managing such authentic opportunities for learners is a time consuming task (Clarke & Burgess, 2009) and opportunities for student practicum or industry placements are limited. It is however possible to simulate the work environment in order to enable students to experience some aspects of the workplace within an educational framework (Patrick et al., 2008). “Online experiential learning is an essential element in the move towards more situated and professional orientations and with the drive to providing students with real work working knowledge” (McLoughlin & Luca, 2002, p. 1273).

This paper describes a simulated work environment in a wholly online IT professional practice unit that allows students to role play as employees of an organisation. In the unit, students work as IT consultants in virtual teams to solve real (authentic) problems for the organisation. The focus of this paper is how a synchronous communication tool is used to facilitate the collaboration and communication of the virtual teams. The paper discusses how the tool was used and presents findings of how two cohorts of students interacted and engaged with the tool contributing to an understanding of how student participation is affected by the introduction of synchronous communication tools (Disbrow, 2008; Hrastinski, 2005).

Background and learning context

IT Practice

IT Practice is a core third-year unit for all streams of the Bachelor of Information Technology at Deakin University. The unit aims to provide students with an understanding of how information technology professionals work in practice and to equip students with the practical skills to apply this understanding to real-world situations. One of the major challenges of this unit is that it is delivered wholly online with no face-to-face component. On average 250 students enroll in this unit annually.

The unit utilises United Enterprises (UE), the website of a fictitious telecommunications organisation that emulates the e-workplace. This flexible virtual learning environment, created using social software, allows students and teaching staff to work and communicate through an intranet as employees of that organisation. The virtual (student) teams work at solving business and IT problems that are typical of those found in a real-life organisation.

The unit consists of four modules which focus on different aspects of employment and the day-to-day operations of an IT department. The tasks and project briefs are the major part of the assessment and drive the learning. There is no formal exam and each module is worth 25 per cent of the total assessment for the unit. Information about the unit, the pedagogical approach and details of various other aspects of the unit have been published previously (Augar & Goold, 2008).

Elluminate Live!

Deakin University supports a suite of learning technologies that are collectively known as Deakin Studies Online (DSO). Elluminate Live! (ELive) is a tool in the DSO suite that provides users with multiple modes of communication that they can use to work in a team in real time. Users can:

- conduct synchronous voice (and/or video) discussions;
- engage in conversation using a text based chat tool;
- share documents, resources, presentations or websites; and
- manage interactions using a variety of visual communication cues and communication spaces.

ELive is most commonly used at Deakin University to support student and staff interaction in the form of virtual tutorials and presentations, where the teacher facilitates a synchronous voice discussion or gives a presentation to a group of up to 20 students. Recording of such sessions is common place. The tool also supports recording so that interactions (meetings) can be captured, stored in a central repository and accessed by authorised users at a later date.

Use of ELive in the IT Teams module

Within the IT Teams module of IT Practice, students gain an understanding of the issues related to virtual teams and gain experiences of team dynamics. In the project brief, which is the main assessment task for the module, they are asked to select a set of suitable UE staff for a particular IT project and to make recommendations about how to work with culturally diverse team members, located around the globe. The task requires them to elect a leader, organise and conduct a virtual meeting using ELive, produce Minutes and a set of recommendations in the form of a report. Follow up communication takes place in team discussion forums in the UE intranet.

Virtual team meeting spaces are available in ELive for all UE teams. The meeting spaces are private and are not shown on the public schedule. Access to team meeting spaces are via a URL and passwords are not required since only team members have access to the URL link. Any access to the meeting space is automatically recorded. The interface of ELive for the IT Teams module depicted in Figure 1 shows the Project Brief in the Application Sharing window showing the overall tasks that needed to be discussed and completed, as well as the Participants window and the Chat window.

A snapshot of ELive use

Table 1 shows details of students, their teams and meetings they conducted as part of the IT Teams module. The total number of sessions refers to all access to the meeting space and includes sessions where members simply dropped in to the “empty” meeting space generally prior to their scheduled meeting. The higher number of sessions in 2009 is somewhat surprising given that there were fewer students involved. However this can be attributed to some student confusion about scheduling of meetings

over the mid-trimester break which occurred halfway through the module. Students may have forgotten about their scheduled meeting even though they had initially agreed to participate at that time.

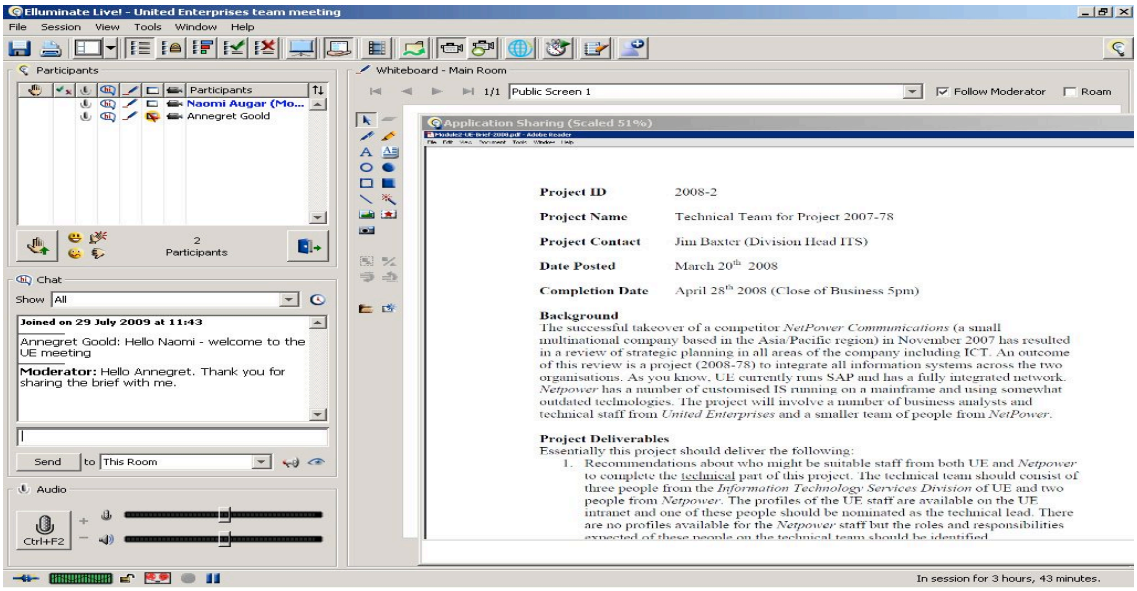

Figure 1: The ELive interface

In all 43 meetings were undertaken in the meeting spaces and the durations of those meetings varied from about 20 minutes to over two hours. Of the 31 teams, three teams met three times; eight teams met twice; and 18 teams met just once, the minimum required. Two teams did not successfully meet at all. Members of one of the unsuccessful teams did attempt to meet six times (see subsequent discussion about Team C) but for the second team, the meeting space was never accessed. It should be noted that the assessment associated with attendance and participation in the ELive meeting was five per cent of the total marks for the unit. This may not have been enough motivation for students to take part. Students could still complete their report from the Minutes prepared by their team members and participate in the team discussion forums in the UE intranet following their ELive meeting.

Table 1: Student demographics

	2008 Semester 1	2009 Trimester 1
Number of students	172	143
Number of teams	16	15
Average number of students in team	11	9
Total number of sessions	126	146
Effective team meetings	20	23

The following short synopsis of how three of the 31 teams used ELive may give further insights into how teams accessed and used the meeting spaces.

Team A

Team A had 17 sessions. Eight of those sessions were instances where different team members dropped in to the meeting. Three of the sessions were constructive meetings with most of the team members present. Another four meetings were instances where the team leader spent up to an hour playing with ELive and exploring the functionalities and features of the software in preparation for the team meetings (he took his role very seriously). There was one main meeting of about 40 minutes where discussion about the project brief took place and there were two follow up meetings to clarify outstanding issues. This team received the full five marks for their ELive meeting and the reports submitted were of a high distinction standard.

Team B

Team B was more typical of the rest of the teams. There were four sessions, only one of which one was a real meeting, lasting 65 minutes with five of the nine members present. In the first three meetings not all

students were present and those who did participate spent most of the time discussing where the other members were and how to organise and conduct the next meeting.

Team C

Team C had six sessions but all of these were instances where different team members dropped in to check out the meeting space. The team had spent a lot of time before the meeting trying to sort our leadership issues as no one wanted to take on the role. They were not able to discuss the project requirements successfully as a team using the ELive meeting space but they did manage to complete the report through subsequent interactions in the UE discussion forums. Several members of the team failed this module.

Although some students did not successfully participate in the Elive meetings, the teaching staff were satisfied with the overall outcomes of these meetings. Most students were able to demonstrate their scheduling and organisation skills in finding a mutually agreeable time to meet as a team. In conducting the meeting they demonstrated their time management, decision making, critical thinking, negotiation, organisational and verbal communication skills. In producing the resulting Minutes and the final report they displayed their planning and written communication skills. Throughout the module while role playing as employees they demonstrated professional behaviours and adhered to organisational procedures and policies provided via the UE intranet.

Overall the types of tasks allowed students to "apply their knowledge to cope with real tasks or problems that naturally occur in the workplace" (Clarke & Burgess, 2009, p. 77). The technology itself appeared easy to use and many teams used ELive for subsequent tasks in other modules, even though they were not required to do so.

Conclusions

ELive has proved to be a suitable tool that supports the pedagogical aims of the IT Teams module and its authentic activities (as characterised by Herrington, Oliver and Reeves, 2003). Further research into how the students performed and behaved in these ELive meetings, as described in the Disbrow study (2008), is planned.

Using ELive to complete tasks for UE provides students with experiential work integrated learning opportunities, which are inherently difficult to emulate online. In using such a tool students are exposed to the difficulty of decision making in virtual teams, particularly as relatively larger "work" teams are involved. The activity highlights to students the importance of good communication and time management skills, both of which are so important in today's e-workplace.

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