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Joseph Luca
_Edith Cowan University_

Catherine E McLoughlin

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Supporting Collaborative Learning with Blogs

Joe Luca, Edith Cowan University, Australia j.luca@cowan.edu.au
Catherine McLoughlin, Australian Catholic University, Australia c.mcloughlin@signadou.acu.edu.au

Abstract: Bloggers can provide opportunities to help enhance community building that can help increase the flexibility of learning while motivating students to actively participate in their learning. In this study, bloggers were used to support social processes of learning by enabling peers to monitor team member performance.

Introduction

Traditional university education sometimes operates within a “transmissive paradigm”, emphasising the transfer of knowledge from lecturer to student. This approach is not conducive to meaningful, active learning where students take a pro-active role in questioning, sharing ideas and applying prior knowledge to develop new ideas. However, the increased emphasis on generic transferable skills has required a re-alignment of teaching practices to obtain desired learning outcomes (Biggs, 1999). Online student-centred learning environments can provide students with increased responsibility for their learning, and help foster important process skills, such as discussion, review of ideas, inquiry and reflection.

This study considers how to use the attributes of technology to increase the benefits of peer work and interdependence by designing learning environments that enable students to develop social, collaborative, professional and communicative skills as well as actively engage in learning through the use of Blogs.

Context of Implementation

At Edith Cowan University, final year multimedia students are required to complete IMM3330/4330 “Industry Project Development”. The aim of this unit is to consolidate core multimedia skills developed in other units, while at the same time making industry contacts and developing a portfolio item to assist with job applications. A career management component (worth 10% of the assessment) is also included that requires students to develop a potential employer list, CV and complete selection criteria for jobs that suit their skills.

Students are responsible for making contact with the client and discussing the scope and legal aspects of the project (educational software, IP, etc). These are negotiated so that clients’ requirements are satisfied, while at the same time the students produce authentic assessment items that conform to the requirements of the unit. This involves firstly understanding the client’s needs and “educating” the client about web production, maintenance and costs. The project-based nature of this unit enables students to develop a relationship with a client, create solutions to design problems and develop a project brief, as in a real scenario. In addition, project teams have to report on progress to other teams, compare project plans and reflect on learning processes, assessment processes and team dynamics. Each of these involves partnerships with industry clients and result in the development of websites (http://studentprojects.scam.ecu.edu.au/).

The unit runs over a fifteen-week semester, with three hours allocated per week for tutorials and lectures. There are no formal face-to-face classes for content, as the unit is largely run online from a Bulletin Board, which provides a rich arena for advice, comments and feedback. Students post questions or ideas, and receive responses from others to help guide them in managing their projects, and creating multimedia products. The rationale used in structuring the project unit around a bulletin board, was that students could benefit from the experiences of other students, industry representatives and academic tutors in an environment that promotes collaboration, negotiation and the exchange of ideas. The teamwork component in this unit comprises of 70% of the overall mark. So, it’s important to make sure that this teamwork component is fair, equitable and all the tasks performed are clearly defined and transparent to all the team members.
As promoted by Biggs (1999), Candy, Crebert & O'Leary (1994), Gibbs (1992) and Ramsden (1992), an emphasis on process, rather than subject content is needed to help develop generic skills. Learning environments with a focus on learner activities, rather than creating “excellent” lecture notes are needed. This approach is in contrast to traditional didactic methods of teaching in higher education institutions, which emphasise subject specific content and the transfer of knowledge from lecturer to student, which must often be memorised for examination purposes.

**Blogger Implementation**

An online Blogger was designed which enabled students to provide weekly progress and reflection of their contributions to the assigned team tasks. Both team members and tutor were able to view this dialogue in order to clearly see team members’ progress - reflections on how successful they had been in completing last week’s tasks, and tasks to be completed in the coming week as part of their responsibilities to the team (see Table 1).

### Table 1: Planning & scheduling Blogger

<table>
<thead>
<tr>
<th>Categories</th>
<th>Description</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reflections completed for week</td>
<td>Were the required tasks completed on time, and completed to the required quality?</td>
<td>Reflections on Tasks Completed for Week 5: I managed to successfully complete all my tasks for last week with the estimated time except for one major problem!!!</td>
</tr>
<tr>
<td></td>
<td>If not, why not?</td>
<td>If the project proposal wasn't finished on time due to technical problems, the meeting I had with Frances didn't go as planned (30 minutes to complete) because the project proposal wasn't finished on time due to technical problems!</td>
</tr>
<tr>
<td>Teamwork and collaboration issues?</td>
<td>Have you given help or received help from others?</td>
<td>Contribution at meetings? Other issues that affected team collaboration?</td>
</tr>
<tr>
<td></td>
<td>Team attendance?</td>
<td>The project proposal wasn't finished on time due to technical problems! The meeting I had with Francis didn't go as planned (30 minutes to complete) because the project proposal wasn't finished on time due to technical problems!</td>
</tr>
<tr>
<td></td>
<td>Contribution at meetings?</td>
<td>The project proposal wasn't finished on time due to technical problems! The meeting I had with Francis didn't go as planned (30 minutes to complete) because the project proposal wasn't finished on time due to technical problems!</td>
</tr>
<tr>
<td></td>
<td>Other issues that affected teamwork</td>
<td>In the end it took me about 3.5 hours to update the backup copy of the proposal which included formatting. The main problem with this is that it took me an extra day and then caused me to hand it over 1 day late. I felt that this problem wasn't entirely my fault as the team was involved in preparing this document, and we need better backup procedures for the future.</td>
</tr>
<tr>
<td>Tasks to be completed for the coming week</td>
<td>Any foreseeable issues or problems?</td>
<td>Finalise the roles and responsibilities section for the PM Doc 1 with team members (est. 30 mins) Write up meeting notes and organize agenda for next meeting (est 30 mins)</td>
</tr>
</tbody>
</table>

**Evaluating the Learning Environment**

Students were asked to complete a questionnaire that examined their perceptions about using the Blogger. Table 2 shows their responses. The average in the final is calculated by multiplying the strongly disagree responses by -2, disagree responses by -1, neutral responses by 0, agree responses by 1 and strongly agree responses by 2.
Table 2: Blogger Perceptions

<table>
<thead>
<tr>
<th>Question</th>
<th>SD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>SA</th>
<th>Avg</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 I enjoyed using the Blogger in this unit</td>
<td>7</td>
<td>23</td>
<td>39</td>
<td>23</td>
<td>17</td>
<td>20</td>
</tr>
<tr>
<td>2 I found the Blogger useful to reflect on my progress</td>
<td>7</td>
<td>15</td>
<td>46</td>
<td>17</td>
<td>51</td>
<td>11</td>
</tr>
<tr>
<td>3 The Blogger helped me keep track of the current and required tasks</td>
<td>7</td>
<td>15</td>
<td>53</td>
<td>18</td>
<td>60</td>
<td>30</td>
</tr>
<tr>
<td>4 The Blogger helped me keep track of my team progress</td>
<td>7</td>
<td>15</td>
<td>23</td>
<td>15</td>
<td>9</td>
<td>-35</td>
</tr>
<tr>
<td>5 The Blogger helps promote fair and equitable teamwork</td>
<td>15</td>
<td>38</td>
<td>23</td>
<td>15</td>
<td>9</td>
<td>-35</td>
</tr>
<tr>
<td>6 The Blogger helped me keep track of the tasks</td>
<td>15</td>
<td>23</td>
<td>23</td>
<td>15</td>
<td>11</td>
<td>-6</td>
</tr>
<tr>
<td>7 The Blogger allowed me to easily change my plan for the next week</td>
<td>23</td>
<td>15</td>
<td>23</td>
<td>15</td>
<td>11</td>
<td>-6</td>
</tr>
</tbody>
</table>

From the results on the Likert scale, it was clear that most students strongly agreed that the Blogger was very useful in helping them reflect on their progress within the team, and complimented tracking and scheduling of their tasks to help keep up to date with all team members informed about their progress. This attitude was also reflected on in student responses gained from open questionnaires and discussions with the tutors.

In addition to these findings, students also provided suggestions on how the Blogger could be improved:

- A good and clear introduction on how to write a Blogger should be given at the beginning of the semester. Maybe having a better structure to follow (more than just about ‘1 reflection and 1 planning’ sections each time).
- Showing feedback from the tutors would help us to know individually how we are going in the team and in the course.
- Guided areas - So it isn’t just a big text box to fill in. It should be in a heading/answer kind of setting where the user doesn’t have to think so much about what to write and formatting. Does this make sense? I don’t know how to describe it in words....
- A section for general blogging comments, and a page so you can enter in your timesheet data in separate fields (exactly like the provided timesheet template in the unit outline). The PHP script then could construct a

However, they perceived that the Blogger wasn’t useful in promoting fair and equitable teamwork (Likert scale average of -35)?

This was an interesting response, as all the four tutors who lecture in this unit, all believed that it strongly contributed to promoting fair and equitable teamwork by providing a medium that clearly showed how tasks were being performed in a clear and transparent fashion. Hence, allowing the team to easily judge how effective other team members were in delivering tasks. Perhaps students didn’t make this connection when answering this question, and the questionnaire needs to be modified to more clearly define “fair and equitable” teamwork. When asked how the Blogger could be improved some suggestions put forward by students included:

- It helps organise what you need to do and the importance of what you need to do
- I strongly feel that the blogger helps in the way I can reflect of what I have done and what I have to plan for the next task
- The blogger allowed our group to electronically submit our hours contributed to the project and allowed us to see how other group members were doing.
- Keeping up to date with other members progress
graph so you could see when and how often you have exceeded set times and qualities. This would also help to make it clearer what exactly is expected with the Blogger. (as there was a problem with this earlier on in the unit).

Conclusions

The creation of appropriate contexts, tasks and support roles for teachers and peers are fundamental to developing effective teaching and learning strategies (McLoughlin & Luca, 2001). Collaborative learning technologies offer some unique opportunities both for peer and electronic support of team building and collaboration, and Bloggers can provide opportunities for student dialogue that stimulate interchange of ideas, progress and reflective processes. In the context of the present study, where students were engaged in developing a web site for a real client, clear communication of progress was found to be useful in the maintenance of a positive and supportive environment to help meet the learning outcomes.

The challenge in the next implementation of the online Blogger support tool is to help students recognise that by enhancing the process of planning, tracking and reflection within a team can also lead to fair and equitable teamwork through a process in which the team and tutor are all clearly informed about the progress of each of the team members, as well as any issues and problems that occur during the semester.

References