A Model for Shaping the Learning Environment for Effective Web Based Courses: Pepperdine’s Online Master’s in Educational Technology Program

Mercedes M. Fisher; Pepperdine University
Bonita Coleman; Bellflower Christian Schools

Abstract

Investigating the pedagogical strategies of a program that promotes dialogue and collective intellect in a community model could benefit course designers and contribute to significant development of online course delivery. This paper summarizes the study of a program that has a proven track record in offering learners powerful and substantial change in their practice. The community model is utilized with students in the Online Master of Arts Educational Technology program at Pepperdine University. In this summary we conducted a detailed case study using a mixture of quantitative and qualitative methods - including observation, focus groups, transcripts from synchronous and asynchronous discussions, questionnaires, and interviews, as well as statistical data from enrollment records - to identify perceptions of effective online collaboration and performance, and also to show the overall program success rate. Community formation, support, and sustainability were also explored.

Corporate and educational institutions have rushed to provide online courses; however, too often they have discovered the difficulty in transferring effective teaching strategies from the classroom to an online environment. According to a report prepared by International Data Corporation, there were approximately 700,000 students enrolled in distance learning classes in the United States in 1997-1998. By the end of 2002, that number could reach 2.23 million. In a knowledge-driven society, high-quality online instruction relies heavily on effective collaboration to create meaningful learning environments that contribute positively to learning outcomes. Making changes to how we interact with students or business colleagues and developing a more collaborative, ‘community of learner’ approach will have a major impact in what we do with or without technology.

In well-structured learning environments delivered via the web, learners actively participate in projects, planned research, synchronized active discussions, and even “live editing” of documents and projects with shared viewing made possible using the web. Course design demands attention toward such successful transfer of knowledge, with the Internet as a delivery option. Learning in a constructivist context is “action technology” in a computationally rich environment. Students create their own content based on individual need. Students document what they are doing and their understanding, allowing greater capacity for reflection and self-correction. They apply what they learn to their workplace in a practice related circumstance.

Based on the collected research, in the past four years over 200 students or 92% of students (Table 1), who take their coursework online in a community model, valued their education through the online program and graduate. Cohort members have come together online to explore and examine course content, share their viewpoints of the material, develop ideas and create solutions all with the single purpose of learning from each other. When compared to traditional face-to-face classroom instruction students have found web-based learning an authentic learning experience that fosters productive interaction between students. Pepperdine makes its program dynamic by using an action research project with real world application of coursework, which is an apprenticeship in making change - a year-long effort that is the backbone of the entire program.

A most recent focus group of 85 students and 15 alumni explored and examined program development recommendations, trends, and global implications (see Table 2). In analysis of these data sources from the past four years across the online Master’s in Ed Tech program, we were able to widen the research sample and increase the confidence level of results in identifying and describing several key elements and patterns of learning and growth that are important to student performance achievement and what students attribute to part of their growth during the program.

To set up an effective online environment we found the following elements must be considered:

- Learning model needs to be collaborative and approached as a team effort
- Professors act as guides, mentors and even co-learners
- Student opinion and experience is valued by professors and peers
- Students are challenged to apply new knowledge and share what happened as a result. This challenge piece changes knowledge into something owned not memorized
- Select tools for both synchronous and asynchronous communication
- Include learning technologies: Chat rooms, threaded discussions, video streaming, audio streaming, simulations and laboratories
- Decide on activities/projects (a.k.a., What to do where?)
- Make projects and assignments open-ended. Interactive set-up includes distributed collaborators, web-based inquiry, case
application, rich media and public demonstration of learning

- Determine how work will be evaluated (i.e., peer review, % on collaboration) and communicate it to students
- Determine how you will provide feedback (i.e., emails, privacy, frequency)
- Set schedule for synchronous meetings. Consider student input
- Set expectations for asynchronous discussion every day, several times per week
- Limit Group size (i.e., 20 – 25 for newsgroups 3 – 5 for group projects)
- Provide orientation if required (i.e., Tech Camp, tech remediation, community help)

Unlike a traditional classroom that moves in lockstep to a well-defined syllabus (that is measured by minutes and hours) learning is sometimes difficult to observe—even by those involved in the collaborative effort. The advantage to a collaborative community is the direct involvement that is required for the acquisition of knowledge. One student observed, “Ideas are out there for all to see and comment on, which lends itself to our examining of what we are doing and learning…we get to see the big picture.” There was a shift from an emphasis on the individual learner to one of a shared community. Rather than being subjected to being told what to do they are being guided in how to accomplish something that they have decided upon. Giving students choices in layers of communication for synchronous communication (i.e., chat, videoconferencing, instant messaging and telephone conversations), allows students a greater amount of ownership and confidence when working in collaboration with other students. Their vested interest in the outcome is an important factor when it comes to motivation because the learning is no longer an external manifestation that is held inside a textbook, rather the learning is internal and depends on their decisions of what to include or exclude. As one student reflected, “How rewarding it is to read an article, feel a strong reaction, type this into NG (newsgroup), and read someone else’s reaction in a few hours! In a traditional setup, I’d have to wait until next week’s class.”

It is difficult to be a non-participant without falling back into the traditional mode of learning-by-rote and explicit isolation of sharing knowledge. “The assignments utilizing technology are not just busy-work, but are thought provoking and challenging – much more so than any undergraduate or graduate classes that I’ve ever had. Always before the learning has been self-contained…[now] we rely on cadre members for help, support, information and feedback. That makes a world of difference. The technology involved makes that possible.”

Both instructors and students prosper when instructors initiate and facilitate their learning environment with dynamic communication methods to foster and support student-to-student communication and collaboration. Specifically, 1) It aids college faculty in designing courses; 2) Guides teacher education students in integrating educational technology in K-16 courses; and 3) Helps instructional trainers in developing web-based training materials. Our goal is that educators will benefit by developing an awareness and knowledge of the potential in online teaching.

An essential piece in planning for online courses is in thinking about WHEN is technology the best tool to accomplish the work involved. The fact is, tools may change over time. Things that continually have presence in learning are the learning process, dialogue, idea of apprenticing, culture, shared knowledge or co-creation of knowledge, and an authentic context. The connecting factor of a learning community, we found, is a common goal (i.e. project within the learning group), which is essential for complete success.

<table>
<thead>
<tr>
<th>Enrollment Yr.</th>
<th>Education</th>
<th>Business</th>
<th>Total Yr.</th>
<th>Drop</th>
<th>Graduated</th>
<th>Percentages</th>
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<tbody>
<tr>
<td>1998</td>
<td>14</td>
<td>10</td>
<td>24</td>
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<tr>
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<td>25</td>
<td>62</td>
<td>1</td>
<td>58</td>
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<tr>
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<td>26</td>
<td>74</td>
<td>2</td>
<td>67</td>
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<tr>
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<td>28</td>
<td>63</td>
<td>1</td>
<td>61</td>
<td>96.83%</td>
</tr>
<tr>
<td>2002</td>
<td>42</td>
<td>31</td>
<td>73</td>
<td>1</td>
<td>TBD</td>
<td></td>
</tr>
<tr>
<td>Totals to date</td>
<td>223</td>
<td>206</td>
<td>429</td>
<td></td>
<td>92.37%</td>
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</tbody>
</table>

(Table 1) Compiled Enrollment Data

<table>
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<tr>
<th>Benefits &amp; Sustained Results (in order of popular idea &amp; preference as stated from participants)</th>
<th>1) Networking &amp; relationships</th>
<th>2) Mentoring &amp; leadership</th>
<th>3) Communication</th>
<th>4) Knowledge sharing &amp; management</th>
<th>5) Ethics</th>
<th>6) Diversity education (connecting across barriers)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1) Project based learning; hands on approach</td>
<td>2) Community action; seeing results</td>
<td>3) Transcends barriers &amp; expands walls</td>
<td>4) Education worldwide</td>
<td></td>
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(Table 2) Program Participant Feedback

The Authors
Mercedes Fisher is an Associate Professor and Co-Director of the Master of Arts Program in Educational Technology Pepperdine University, CA USA mmfisher@pepperdine.edu 310.568.5671 PH 310.568.5755 FAX http://gsep.pepperdine.edu/~mmfisher/main/home.html
Bonita Coleman is Director of Technology Integration & Teacher Training at Bellflower Christian Schools Cerritos, CA USA bcoleman@bcschools.org or bcolema@pepperdine.edu 562.865.6519 PH http://www.bcschools.org/