Using Student-Centered Discussion Forums to Enhance Student Participation in Online Courses

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The effectiveness of teaching and learning online depends upon the active engagement of the learner (Moore, 1993; Offir, 2000). Pedagogical strategies that promote learner involvement are critical for face-to-face, hybrid, and online learning environments. To satisfy this need for interactive and meaningful discussion board work, research was conducted in the areas of student-centered and constructivist learning through situated and active learning discussion forums. As a result of this investigation, insights into the use of student-centered discussion board activities to increase student participation in online courses were explored.

The adult learners and the digital lifestyle they work and live in have resulted in an increased demand for ‘learning now’ online degrees and coursework (Conceição, 2007). More than 2,500 colleges and universities nationwide and approximately 3.94 million students were enrolled in at least one online course in 2007 (Allen & Seaman, 2008). Despite the increase in and demand for quality courses student-centered interaction is lacking in many online courses (El-Tigi & Branch, 1997) and unsatisfactory implementation continues to be a concern for instructional designers (Hogarth & Dawson, 2008). Given the larger numbers of online learners as well as the need for the development and improvement of discussion forum formats to promote meaningful student participation, a model of student-centered discussion forms to enhance student participation was examined.

Student-Centered Learning and Interaction

Constructivist learning occurs when the learner builds on prior knowledge and interests for understanding and makes connections to link and construct new knowledge (Newby, Stepich, Lehman, & Russell, 1996; Walker & Lambert, 1995). Maxwell (1995) believes this interaction causes the learner to be both responsible and active in the learning process. In student-centered learning the responsibility shifts from the instructor to the student. In this model, learners are responsible for managing their learning (Sparrow, Sparrow, & Swan, 2000) as creative and active producers of learning (Ponti & Ryberg, 2004). The instructor designs learning experiences to promote student engagement in the learning process using open-ended questions, creative/critical thinking problems (Jonassen, 1999), simulations and role-playing, and/or research through individualized and/or collaborative work that stress the learning process rather than the product (Salmon, 2000).

Students actively involved in learning tend to learn more concepts (Bonwell & Eisen, 1991), demonstrate a deeper understanding (Meyers & Jones 1993), and retain concepts longer than when involved in passive learning activities (Newman & Scurry, 2001). Brown (2001) and Herrington and Standon (2000) described student-centered online learning communities as consistent with active or constructivist approaches to learning. Moore (1989) describes three types of interaction levels necessary in a distance-learning environment. Learner-content interaction which occurs when the learner forms a cognitive and intellectual relationship with the content; the learner-instructor relationship, affected by the structure and motivation provided by the instructional design of the curriculum; and learner-learner interaction that promotes active student engagement and discussion through knowledge sharing (pp. 2-4). Anderson (2002) believed “High levels of more than one of these three modes will likely deliver a more satisfying educational experience” (p. 4). Palloff and Pratt (2001) also found value in student-to-student and faculty-student interaction and collaboration. Grooms (2000) reported students enjoy and want such interactions.
Researchers clearly recognize the value of discussion forums as constructivist learning tools in e-settings (Bannan-Ritland, Dabbagh, & Murphy, 2000; Hung & Nichani, 2001).

Technology tools can be used to facilitate those communications by actively engaging students (Solvie & Kloek, 2007) and such communication tools can result in an increase in learner interactions (Lavooy & Newlin, 2003).

**Research and Forum Analysis**

This study focused on the extent student-centered learning activities used in discussion forums to promote student participation. The participants in this study were 22 graduate students of differing abilities and backgrounds, enrolled in two different education and leadership courses in an urban university. The population included 17 female and 5 male students.

The students participated in a series of eight discussion and four summary forums delivered through the ANGEL Learning Management System (Blackboard, Inc.). Based upon the work of Sorensen and Baylen (2009) five different types of discussion board formats were used.

1. *In the Structured Board*, a student leader posed a key question, provided background knowledge and resources and then summarized and synthesized the forum at the end of the session (p. 77).
2. *In the Case Analysis Discussion Board*, learning teams were assigned to a different case study for development and analysis. Each team reviewed and critiqued the findings of another team (p. 78).
3. *In the Discussion Role Forum*, each student assumed a different perspective/role for postings including: Initiating, Supporting, Challenging, Monitoring, and Summarizing (p. 79).
4. *In the Viewpoint Forum*, students were assigned differing viewpoints for research, evidence gathering, and solutions development.
5. *In the Summary Forum*, students evaluated and reflected on key concepts learned.

With this structure the following outcomes were evaluated: (a) To what extent do student-centered learning forums promote levels of student engagement? and (b) What are student perceptions of interactive learning forums?

**Student Perceptions**

Students were surveyed about their perceptions of the discussion forum experiences. Using a 5-Point Likert Scale, students rated their learning experiences using an online questionnaire. Out of 22 students, 18 completed the questionnaire, a response rate of 82%. Data were analyzed and calculations were completed by the Manage Reports function in ANGEL.
Perceptions of Graduate Students on Discussion Forum Experiences

<table>
<thead>
<tr>
<th></th>
<th>1- Strongly Agree</th>
<th>2- Agree</th>
<th>3- Neutral</th>
<th>4- Disagree</th>
<th>5- Strongly Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Perceived Learning</strong></td>
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<tr>
<td>Participating in discussion forums helped me explore and better understand key course concepts and topics.</td>
<td>61.1%</td>
<td>33.3%</td>
<td>5.6%</td>
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<tr>
<td>Participating in the discussion forums helped me achieve course goals and objectives.</td>
<td>50%</td>
<td>50%</td>
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<tr>
<td>The discussion forums promoted higher-level thinking and application of skills.</td>
<td>44.4%</td>
<td>44.4%</td>
<td>5.6%</td>
<td>5.6%</td>
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<tr>
<td><strong>Interaction/Participation</strong></td>
<td></td>
<td></td>
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<tr>
<td>The discussion forums promoted student communication and collaboration.</td>
<td>38.9%</td>
<td>50%</td>
<td>11.1%</td>
<td></td>
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<tr>
<td>The discussion forums increased teacher-student and student-to-student interaction.</td>
<td>44.4%</td>
<td>33.4%</td>
<td>11.1%</td>
<td>11.1%</td>
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<tr>
<td>Participating in the discussion forums encouraged and guided my participation.</td>
<td>27.8%</td>
<td>55.5%</td>
<td>11.1%</td>
<td>5.6%</td>
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<tr>
<td><strong>Satisfaction</strong></td>
<td></td>
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<tr>
<td>I support the use of student-centered discussion forums in online courses.</td>
<td>50%</td>
<td>38.9%</td>
<td>11.1%</td>
<td></td>
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</tr>
<tr>
<td>My experiences with the discussion forums enhanced the course.</td>
<td>55.5%</td>
<td>27.8%</td>
<td>16.7%</td>
<td></td>
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<td>I found the experience of participating in the discussion forums interesting.</td>
<td>38.9%</td>
<td>55.5%</td>
<td>5.6%</td>
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**Discussion**

The significance of the above findings is that student-centered discussion forums were contributors to the level of student interaction, learning, and satisfaction in online courses. The use of discussion forums promoted student involvement in a virtual community. All students agreed or strongly agreed that participating in the discussion forums helped them achieve course goals and objectives. Ninety-four percent of students also reported interest in the use of discussion forums and 89% believed the discussions facilitated their communication and collaboration. These findings are consistent with those of Palloff and Pratt (2001) and Salmon (2000) that interaction is considered an important factor in learning online by promoting student involvement and responsibility for the process of learning (Bruning, 2005; Burnett, Bonnici, Miksa, & Kim, 2007; Fresen, 2007; Kearsley, 2000; Trentin, 2000). The use of technology facilitated the interaction among students acting as a critical tool for learning and achieving course goals and objectives.

The results of this study indicate that a relationship exists between the instructional design and the degree and level of student engagement on the learning process. Clearly more research is needed in this area but it appears there is merit in moving from requiring a specific number of words in discussion board threads to an analysis of student participation and thinking. In the field of e-learning there is an ongoing need to study how instructional design can promote student-centered interaction and self-management of learning in a virtual learning environment.

**References**


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About the Presenter

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