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Enhancing Student Learning Through Discussion Boards and Blogs

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Abstract

Discussion boards and blogs are Web 2.0 tools that purportedly enhance learning. Teachers hope that the exchange of ideas and opinions that occur in these environments will help students to form, solidify, or change their own ideas on a given topic. The purpose of the study is to determine if participation in a discussion board helps students' perceptions of learning, particularly in forming opinions, and if active participation aids in the acquisition of course objectives. Data from class discussion board dialogues, a 10-item Likert scale survey, and final course reflections were collected and analyzed for common trends and themes. Results indicate that students perceived their learning was helped by their participation in the discussion board, they would like to participate in a discussion board again, and that the discussion helped them to be better informed and form their own opinions. Similarly, a strong predictor variable for mastery of course objectives, reflected in their final grades (average above 95%), is "weekly" participation in the discussion board.

Keywords: discussion board, blog, student perceptions, Web 2.0 tools

Enhancing Student Learning Through Discussion Boards and Blogs

Dedicated, conscientious teachers want their students to succeed. They want students to broaden their understanding, to seek more information on a given topic, and to become lifelong learners. One of the ways that teachers try to help their students succeed is through class discussions. When students express their opinions and hear the opinions of others, teachers hope that students will learn from each other and question and solidify their own opinions, thus forming a community of learners.

Blogs and Discussion Boards

In many classrooms today, options to continue in-class discussion and to converse about topics outside class are through Web 2.0 tools such as discussion boards or web logs, commonly referred to as "blogs" (Huang, Jeng, & Huang, 2009). In both interactive formats participants can write asynchronous responses to a posted topic or thread. Blogs are usually maintained by an individual who posts entries on a topic to which readers can respond. Blog sites generally list the entire conversation in reverse chronological order and allow the reader to leave comments on these entries (Wikipedia, 2011, June 2). In contrast, a discussion board allows a participant to start new topics or threads of conversation and also to respond to others. The settings on a discussion board can be changed so that one could follow the conversation in any chronological order, or one could look at the postings of a particular participant or a particular thread. The discussion board indicates the entries the reader has already viewed, which is helpful to a reader who only wants to check the new entries. The blog does not have this feature, forcing the reader to scroll through the entries to determine which are the new ones, although the use

of a Really Simple Syndication (RSS) feed can enable a reader to more easily see new entries (Churchill, 2009; Huang et al., 2009).

Background Research

Researchers have found that the use of blogs and discussion boards can be helpful for student learning. For example, Goldman, Cohen, and Sheahan (2008) report that participation in a blog enabled students to learn from each other and to discover other perspectives. This is important if we want our students to be mindful and respectful of those whose ideas and cultural backgrounds may be different from their own. Reading and reflecting on what their peers have written may be useful for students in forming their own opinions as students exchange their thoughts and ideas with their peer group (Rosenfeld, 2010).

Burgess (2009) finds that students who participated in a discussion board forum and chat (online synchronous discussion) were motivated to read more on a topic. Burgess suggests that the use of the discussion board and chat encourages the social aspect of learning, giving students the opportunity to learn from each other and from their own prior knowledge. Coole and Watts (2009) concur suggesting that interactivity on suitable tasks increases learner control of critical concepts and skills. Some researchers report that student interaction in an online asynchronous learning environment can create a community of learners (Churchill, 2009; Cox & Cox, 2008) and Churchill further notes that the use of blogs enables students to feel that their needs and opinions are valued.

Method

Purpose

The purpose of this study is to determine if the use of the discussion board in a graduate class would help students' perceptions of learning, particularly whether it would

help students to change or form opinions on a topic, and if active participation aids in the acquisition of course objectives. The present study used the discussion board as a vehicle for the discussion.

Participants

The participants in this study were 21 graduate students attending a northeastern urban university. There were 2 males and 19 females in a multicultural "Advanced Study of Pedagogy and Curriculum in Childhood Education" course with a focus on social studies, literacy, and technology. To maintain anonymity, students were assigned numbers rather than their real names in reporting the results.

Instrumentation

The survey instrument used for this analysis was the Course Feedback Survey on the Blackboard Discussion Board (Rosenfeld, 2011). The survey consists of 10 questions and is set to a Likert Scale from 1: Strongly Disagree, 2: Disagree, 3: Neutral, 4: Agree, and 5: Strongly Agree. (See Appendix A.)

Procedure

Blackboard was used to provide the discussion board that was open only to class members. As part of the course assignments, students were asked to make weekly contributions to the class discussion board and to respond to their classmates' postings. Of the nine required postings, five topics were current and/or controversial in nature and four topics were on required course readings. A final course reflection that was not posted for sharing was submitted as part of the assignment.

Students were then asked to fill in the Course Feedback Survey on the Discussion Board (Rosenfeld, 2011) that gauged their perceptions about their participation on the

discussion board. These were returned by17 participants. The survey data were collected and analyzed. Frequencies of responses for each survey item were determined; correlations and regressions were run. Comments were also reviewed to note trends.

Analysis

The data were analyzed using IBM's Statistical Programming of the Social Sciences (SPSS) version 19. Descriptive statistics, correlations, and regressions were run to ascertain frequencies and linkages. Significant results are reported. In addition, student comments were analyzed to ascertain themes and trends.

Limitations

It should be noted that this study is based on a small population (n=17) of graduate students at an urban university. This population is one of convenience and the results may not be generalizable to other students and situations.

Results

During the semester, participants contributed 599 posts to the discussion board.

Frequencies

Initial descriptives reveal that students perceived their participation on the discussion board helped their learning, as 100% of the returned survey participants selected "agree" or "strongly agree" on item #1.

Items #2 and #3 were statements about participation on the discussion board. Fourteen students agreed or strongly agreed that they had participated a lot on the discussion board and 3 students disagreed with this statement. Thirteen students disagreed or strongly disagreed that their participation was minimal and that they had not responded to classmates' postings, one was neutral and three students agreed.

Item #4 stated that the discussion board helped to form one's own opinions. Fifteen students agreed or strongly agreed, and two students disagreed.

Item #5 stated that one's opinion on a topic changed after reading the discussion. Ten students strongly disagreed or disagreed and seven were neutral.

Item #6 stated that one's opinions were not changed, but that one felt better informed after reading the discussion on the discussion board. Fifteen students agreed or strongly agreed and two students were neutral.

Item #7 stated that classmates' postings influenced one's own thinking so that one questioned his/her opinions on a topic. Ten students agreed or strongly agreed with this statement, four were neutral, and three disagreed.

Item #8 stated that one had read all of the discussion on the discussion board. Students responded according to their participation; responses were mixed. Item #9 stated that the discussion had been read weekly. One student disagreed and 16 students agreed or strongly agreed.

The last item (#10) stated that one would like to participate in a discussion board again. Fifteen students agreed or strongly agreed; one student strongly disagreed and one was neutral.

Linkages

A significant positive correlation ($r = .829$ $p < .01$) was found between students reading the discussion board weekly and wanting to participate in the discussion board (see Table 1 below). This suggests that students who are active on a discussion board on a weekly basis want to participate in a discussion board again.

Table 1

Correlation between Question #9 and Question #10

Correlations

		VAR00009	VAR00010
VAR00009	Pearson Correlation	1	.829**
	Sig. (2-tailed)		.000
	N	17	17
VAR00010	Pearson Correlation	.829**	1
	Sig. (2-tailed)	.000	
	N	17	17

**. Correlation is significant at the 0.01 level (2-tailed).

Regression

Multiple regression was performed using all ten questions/variables on the criterion "Final Grades;" however, the only predictor variable showing significant variance (r^2 =35%) with the dependent variable was students who "read the discussion board weekly" (see Table 2). This linear regression suggests that students who are active "weekly on the discussion board" positively enhances - to some degree (a little over one-third) - their acquisition of course objectives that is reflected in their final grades. (The final class average was 95.54%.)

Table 2

Linear Regression

Variables Entered/Removed[b]

Model	Variables Entered	Variables Removed	Method
1	IReadDisc Weekly	.	Enter

a. All requested variables entered.
b. Dependent Variable: FinalGrades

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.587[a]	.345	.301	2.79660

a. Predictors: (Constant), IReadDiscWeekly

Discussion

There were many positive student comments about the discussion board including statements that the discussion board made the class more interesting, that students enjoyed reading different opinions and perspectives, that students enjoyed the topics most

when they were about current educational issues, that the discussion board was a useful tool for shy people, that it enabled them to think more openly, it helped to clarify their thinking, and it gave them the opportunity to voice their thoughts in a way they would not have had time to do in class.

All the students perceived that the discussion board helped their learning; 88% thought that the discussion board helped them to be better informed and helped them form their own opinions. No one reported that his/her opinions had changed on a topic after reading the discussion on the discussion board. Interestingly, Student 15 commented that she had reflected on her own entries. Her example was that she initially had blasted teachers' unions and upon reflection decided that she needed to hear the other side of the debate. This student also commented that she had a change of opinion after class discussion (but not after the online discussion.) Student 10 commented, "I found the Discussion Board extremely helpful in formulating and expanding my thoughts on a particular topic or reading assignment. It was interesting to read what others wrote and how they felt about the topic at hand." Student 11 said that discussion boards "…allowed us to think more openly and take in other people's perspectives." Student 14 concurred that it was good to share ideas and opinions. The discussion board seems to be a useful tool for helping students understand the opinions of others and gives students an opportunity to reflect on their own views.

Student 13 disclosed that reading other people's feedback on the discussion board sometimes helped her to clarify material that she had found to be difficult to understand. Peer comments in turn gave her confidence when she wrote her own responses. Student 14 commented that the discussion board gave her the opportunity to see the readings from

points of view that she hadn't perceived earlier. The discussion on the discussion board provided feedback for students that may have been a new way of looking at the topic that could have been useful in solidifying their own opinions.

Student 16 wrote that the discussions helped her to recognize that many of her opinions about topics were the same as her classmates'. She noted that if assignments were only turned in to the professor, she would have been unaware of this. Again, knowing that others feel the same way that they do seems to be helpful information for students. Although this was not an item on the survey, one might postulate that this information/feedback gives students confidence in expressing their own opinions on a topic.

A couple of students commented that the discussion board is helpful for shy students, as they are able to voice their views "without the scrutiny of twenty odd pairs of eyes on them." Student 16 noted "There was a sense of freedom to speak about a topic without the need to hurry up or shut up." Student 16 disclosed that she felt comfortable saying things on the discussion board in a way that she would not say in class.

Conclusions/Implications

This study examined the perceptions of a graduate class who participated in a discussion board as part of their coursework. All students who returned the survey perceived that the use of the discussion board helped their learning. Although no one felt that his/her opinions had changed as a result of participating in the discussion board dialogue, most agreed that they felt better informed because they had participated.

Almost all of the survey respondents (94%) reported that they read the discussion board on a weekly basis. The linear regression data indicate that reading the weekly

discussion is a predictor for mastery of course objectives which is reflected in their final grades (class average of over 95%.) This research suggests that professors should encourage their students to read and contribute to their class discussion boards on a weekly basis. However, it should again be noted that this is a very small sample and the results may not be generalizable to a larger population. Thus additional research is needed with a large random sample. In addition, attributes such as age range, gender, and the hourly time spent on the discussion board need to be explored.

It should be noted that many students are motivated by grades. By factoring students' discussion board participation into the overall grading system, the likelihood of boosting student achievement increases. Through frequent online exchange, whether consciously or unknowingly, students become integral contributors to an online community of learners. Conscientious teachers promote opportunities for student collaboration. Not only do online discussion boards provide an ideal forum for students to cooperatively apply newly acquired knowledge, they also provide students with opportunities to evaluate their classmates as potential partners for future assignments. Those who are frequent, thoughtful contributors to class discussions will be more desirable, while those who are largely absent will find themselves increasingly isolated. This, too, can be motivating, particularly for those students who value social acceptance more than grades.

Discussion boards and blogs continue to become an integral part of higher education classrooms, especially where educators want to stay abreast of newer technology practices that can help student learning. There are many benefits to using these Web 2.0 tools. Educators can post documents such as syllabi, class rules, and

changes in schedule without having to email each student individually. This can save educators a lot of time, a commodity many educators lack in their busy schedules. In addition educators can post class assignments and continue to clarify assignments in the same web space. This information is then readily available to students when they visit the web page. Students can respond and elaborate further about work with their teacher and peers. Class assignments can also be submitted in this web space, allowing teachers the possibility to free up desk space and avoid the misplacement of student work. Discussion boards and blogs are not only useful tools for students to share their voices in unity and equality; they are also useful classroom management tools for educators.

The results also indicate that students who read the discussion board weekly also wanted to participate in a discussion board again. This is important especially for those who advocate for the use of technologies to help learning. How students implement technology tools may affect their perceptions about how they learn. As active weekly discussion board participants, these students want to use this technology tool to aid in their learning. Thus the authors, based upon the aforementioned preliminary albeit significant results, recommend that Information Age educators actively monitor discussion boards and ask students to participate in weekly assignments to enhance both intrinsic and extrinsic student learning.

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Appendix A

Course Feedback Survey on the Blackboard Discussion Board

ED 7203

May, 2011

Directions: Please enter the letter that best states your opinion for each statement.
If you want to clarify a response, please type in your clarification after the statement. If you want to make general comments, please do so at the end.

A. Strongly disagree B. Disagree C. Neutral D. Agree E. Strongly agree

1. The Blackboard Discussion Board helped my learning this semester. 1._____

2. I participated a lot on the Discussion Board. 2._____

3. My participation was minimal; I did not respond to my classmates' postings. 3._____

4. The Discussion Board helped me to form my own opinions. 4._____

5. I changed my opinion on a topic after reading the discussion. 5._____

6. My opinions were not changed, but I felt better informed after reading the discussion on the Discussion Board. 6._____

7. Classmates' postings influenced my own thinking so that I questioned my opinions on a topic. 7._____

8. I read all of the discussion on the Discussion Board. 8._____

9. I read the discussion weekly on the Discussion Board. 9._____

10. I would like to participate in a Discussion Board again. 10._____

Comments: