ONLINE CL@SSROOM

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Comparing Online Peer Interaction Methods

Face-to-face instructors are increasingly turning to online communication tools to provide students the opportunities to discuss course content with peers. There are several communication modes that support this type of interaction, and in a recent study, Bill Warrick, education instructor at George Mason University, and his colleague Stacy Connors surveyed a cohort of graduate students in an instructional technology master's program on the quality of the learning experience, peer interactions, and ease of use of e-mail, bulletin board, and synchronous chat for collaborative group work.

The study

In fall 2003, 49 students enrolled in two courses — Teaching With Technology and Education and the Culture of Schools — engaged in online discussions about seven books related to the culture of schools and technology tools. During the first five weeks, they used e-mail as their discussion tool, followed by Blackboard's bulletin board feature in the second five-week period, and finally DigiChat software for synchronous communication in the final five-week period.

For each five-week discussion, the students were randomly divided into groups of four or five and were asked to discuss the readings.

In the first five-week period, each student was asked to create a chain e-mail message about what they thought was the main idea of the reading. Each message was to be sent to the group one at a time in a specific order. As each student received peers' messages he or she would comment and forward the original message and all additional comments to the next person in the group. When the chain message made its way back to the original sender, he or she would read all the comments and forward it to the instructor.

For the Blackboard assignment, students were asked to post and reply to other group members' comments about the main ideas of the book.

In the synchronous part of the course, the instructor created private chat rooms for each group to discuss the books. One student served as moderator and summarized the chat for the instructor.

After each five-week period, Warrick surveyed the students to determine how they rated

- their learning experiences using each of the three communication modes

Planning Discussion Board Use

Chances are your online course includes the use of a discussion board to some extent. But have you carefully thought about how you use it? The following questions adapted from a discussion board checklist from the University of Wisconsin-Stout can help keep you on track:

- Will participation be graded?
- Will there be a required minimum number of postings?
- Will students be required to respond to each other?
- Are your discussion board requirements clearly stated in your syllabus?
- Do you have a plan for instructing students on how to use the discussion board?
- What type of interaction are you looking for on the discussion board: questioning, sharing experiences, listing outside resources, making connections, summarizing points?

After the course has ended the following questions can help you evaluate the use of the discussion board and point to possible improvements:

FACULTY

How Faculty Opinions of OLEs Affect Course Quality

An important dimension to course quality is the faculty member's perception of their quality. A study that looked at faculty perceptions of the online learning experience and their reasons for using OLEs (see reference below) found that the reasons faculty use educational technologies may affect their perceptions of the quality of the learning experience.

The study asked faculty members why they chose to teach courses that used OLEs. The question read as follows: "How important to you are the following reasons for teaching this course using online learning environments?" The faculty were asked to respond using a Likert scale to the following:

- "To teach nontraditional students with work experience,
- I was asked to teach this course
- To learn or stay abreast of new educational technologies in the classroom
- To support goals of my department, college, or school (e.g., the course may be about new technologies)
- To develop new teaching skills
- To improve my vita or resume."

From a non-random sample of faculty at Washington State University, the following results emerged:

- The faculty in the sample, 65 percent of whom were women and the average had taught between five and 10 years, reported a "moderately positive evaluation of the learning experience in courses that use OLEs compared to courses that do not use OLEs."
- The top three reasons for teaching courses with OLEs were:
  ✓ To develop new teaching skills
  ✓ To stay abreast of new technologies and try them in the classroom
  ✓ To support program goals of my department or college.
- Two reasons for teaching that were ranked low were to make more money and because they were asked to teach the course.
- Faculty perception of the OLE learning experience was more positive when they gave the following reasons for using OLEs:
  ✓ It makes sense to use an OLE in the course
  ✓ To develop skills
  ✓ To improve my vita.
- Faculty were more likely to report more positive perceptions of OLEs if making more money was not a big motivator for using OLEs.

Based on these findings, the study's authors write: "[I]t appears that favorable evaluations about the learning experiences in courses that use OLEs are not because faculty necessarily want to learn about these new technologies per se, but because faculty wish to supplement and update their vitas and improve their teaching skills."

They suggest that institutions need to integrate technology into faculty development programs rather than teaching them how to use the technology in isolation.

Reference

Myers, C.B., Bennett, D., Brown, G. & Henderson, T. (2004). Emerging online learning environments and student learning: An analysis of faculty perceptions. Educational Technology & Society, 7(1),78-86. Accessed at http://ifets.ieee.org/ periodical/7_1/index.html on 9/20/04. @

- their interactions with peers using each of the three communication modes
- the ease of use of each of the three communication modes.

And at the end of the course, Warrick asked students to rank each communication mode in terms of overall quality.

Results

Based on anonymous survey responses, the quality of the learning experiences, interactions with peers, and ease of use were consistently high across the three communication modes. In terms of quality of interactions with peers, synchronous chat rated slightly lower than the other two modes.

On a scale of 1 to 5 where 1 is the best, the mean scores for each category were all 1's and 2's in terms of quality of learning and peer interaction.

"That kind of surprised and pleased us. It said that all three were viable means of interaction," Warrick says.

As for ranking the different communication modes, there was no clear preferred mode: 31 percent ranked e-mail as their preferred mode; 35 percent chose bulletin board; 33 percent chose synchronous chat.

Students were less divided on which communication mode they least preferred: 29 percent rated e-mail lowest; 29 percent rated bulletin board lowest; 41 percent ranked synchronous chat the lowest.

"We just attributed that to the fact that one of the problems was that they were doing this on a weekly basis, and it is difficult to arrange time for people to meet online, particularly when they are just being introduced to the tool," Warrick says.

Warrick and Connors also analyzed the discussions that occurred in each mode.

"Blackboard and chat allowed for a little more freedom of interaction. The e-mail was a little too structured, and I wish we hadn't had it as structured as we had where they were only able to react once to someone's comments. There was

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"We learned that it is appropriate to use any of these three tools depending on the subject matter, time frame, and students' learning styles."

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not a lot of opportunity for back and forth discussion, so we didn't see the depth of interaction simply because of the way we had it structured. In Blackboard and in the synchronous chats, they were a lot more free to react and have what we term a 'general discussion' with a lot more give and take," Warrick says.

Implications

"Inasmuch as we found that each of the three was rated highly in terms of their quality of learning and interaction, we learned that it is appropriate to use any of these three tools depending on the subject matter, time frame, and students' learning styles," Warrick says.

In addition to the findings, informal discussions with students pointed out areas of frustration such as difficulty in organizing synchronous chats and the lack of back-and-forth interaction using e-mail.

Students' reactions to these communication tools were partly based on their previous experience with them, Warrick says. "E-mail was much more familiar to them. It facilitated their discussion, and it made it easier for them to share their thoughts. By the same token, one of the problems we found in talking with students after the course had ended was that they were simply reacting to what someone wrote to them. If we had a more iterative process where they could e-mail back and forth among each of the five members a number of times, the quality of the discussion, I think, would approach what we saw in Blackboard," Warrick says.

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- What topics generated the most discussion?
- Why did certain topics generate a lot of discussion?
- Did the quality of postings meet your expectations?
- How did the quality of student responses compare to their other work in the course?

Reference

Discussion Board Checklist. University of Wisconsin-Stout Learning Technology Services. Accessed 9/27 at www.uwstout.edu/solutions/lts/ webid/webboard/DiscussionBd_ Checklist.doc. @

Using the Debate as a Teaching Tool in the Online Classroom

By Kam Jugdev, Ph.D., PMP, Carrie Markowski, BComm, BEd, and Thomas Mengel, Ph.D., PMP

Launched in 1994, Athabasca University's online Executive MBA program is now Canada's largest executive MBA with specialized MBAs in Project Management and Information Technology Management. Delivered via a Lotus Notes® learning platform, the rich, collaborative learning environment fosters a high level of interaction among students and academic coaches, and facilitates discussion that is thoughtful, reasoned, and reflective.

Because we believe our students learn best when they interact with their peers and when they are asked to apply their learning, we make extensive use of asynchronous group discussion exercises and group case studies. The case method of teaching allows students to apply analytical skills, tools, and techniques to a variety of organizations, to analyze situations from different perspectives, and to develop pragmatic action plans (Thompson & Strickland, 2003).

In one of our specialized MBAs, the MBA in Project Management, course evaluations indicated that some students were tiring of case studies. Further, some of our coaches had pedagogical concerns with the use of the case study method throughout the program. In response to the student and pedagogical concerns, we decided to include a debate in the last two courses of the program (at which point, students have a basic understanding of key concepts and are in good position to critically analyze controversial issues).

This paper presents our interdisciplinary course team's experiences in incorporating a debate as an innovation in our online classroom. The course team consists of an editor, a coach, and an academic course manager.

Merits of a debate

"Although the use of opposing positions for discussion is as old as Socrates, the technique has not been a typical educational strategy in some course subjects" (Dushkin/McGraw-Hill, 2004).

We chose to use a debate format because debates help students go beyond the typical discussion that results from a case study or a discussion question (and which can lead to group think and joint problem resolution). Debates have the following benefits:

- They encourage students to think critically.
- They encourage respect for different viewpoints.
- They draw out differences and similarities in viewpoints more clearly than a case study.
- They ask students to support positions that they might not normally defend.
- They encourage students to delve into discussions that the textbooks and other course materials may not cover (Dushkin/McGraw-Hill, 1997).

Our challenge was to structure the debate for effective delivery in our eight-week online Lotus Notes® classroom.

The great debate: designing the debate format for online delivery

Learning objectives

Our learning objectives for the debate were to help students do the following:

- "See the relationship between the course concepts and controversial issues" (Dushkin/McGraw Hill, 1997, p. 8).
- Use critical thinking and constructive arguments to support and defend their positions.
- Explore personal biases in opinions.
- Develop skills in arguing different viewpoints.

We paid specific attention to developing clear and detailed instructions for "The Great Debate" so that students would be able to interact freely with minimal coaching intervention. This also allowed our academic coach to follow the interactions without biasing the process.

However, the academic coach did take an active role in initiating and guiding the debate. He selected a debate topic, ensured that the debate stayed "on track," and posted questions to foster further discussion and critical thinking.

Forced-sides approach

We chose a forced-sides debate format. Two groups of five students were assigned to argue either "for" or "against" a resolution. We intentionally developed resolution topics that were current and controversial. For example, one debate resolution was "Be it resolved that project team-related issues (such as performance and disciplinary matters) are the sole responsibility of the functional manager to whom the team members report, and not the project manager's responsibility."

A five-step approach

The debate process consisted of five steps.

1. *Develop group code of conduct:* Each group prepared a code of conduct to guide the group work. Groups were asked to include group rules of engagement and

processes for effective decision making and conflict resolution in the code of conduct.

2. *Develop a position statement:* In a private Lotus Notes® database accessible only to group members, each group developed a formal 1,000-word position statement based on the readings and course material. Students were encouraged to develop up to five convincing arguments for their side. Each group then posted its position in a database accessible to both groups.

3. *Develop a rebuttal to other side's position statement:* Each group then studied the position statement posted by the other group and developed a formal 1,000-word rebuttal to it. The rebuttal involved developing clear and logical points that identified and addressed weaknesses in the opposing group's position statement.

4. *General discussion:* Once the rebuttals were posted, all members of both groups engaged in a final general discussion on the debate.

5. *Peer evaluation:* The students were asked to evaluate the participation of the members of their groups in the debate process.

Steps 1 and 5 are used in all our MBA programs. Both steps are consistently rated as best practices; the group code of conduct allows students to work out roles and responsibilities, and the peer evaluation empowers them to address problematic team dynamics.

Grading

The debate was worth 20 percent of the course grade. Although students were assigned a group mark for the debate, the academic coach

could adjust an individual's grade on the debate based on the peer evaluation.

In marking the position statements and rebuttals, the academic coach focused on how well these submissions:

• used arguments based on logical and relevant material, not simply opinions
• focused on key issues
• challenged flaws in the opposition's arguments and research
• used constructive criticism and rationale
• avoided faulty generalizations, distorted information, or over simplifying issues.

The academic coach was also looking for submissions that were clear, interesting, relevant, well organized, and engaging.

Polling feature

Our academic coach used an innovative way of gathering individual viewpoints on the topic. Following the position statements and rebuttals, the coach was curious as to what students really thought about the resolution, despite the fact that for the debate, they had to argue a specific side. He asked students to anonymously answer two questions in a survey he placed at http://www.surveymonkey.com:

1. Which side do you personally support?
2. What is your main reason for supporting this side?

While the debate structure forced five students to argue "for" the resolution and five students to argue "against" the resolution, the poll indicated that seven out of the ten students did not support the side they were assigned.

The poll was repeated after students had engaged in the general discussion with additional questions designed to highlight changes of opinion and the related rationale.

1. Now that you have engaged in a broader discussion on the topic, have you changed your opinion on the debate?
2. If you answered "yes" to the last question, can you outline the main reasons for changing your opinion?

In this second poll, two students indicated that they had significantly changed their minds due to the general discussion. Through the discussion, they were made aware of some points that they had not previously considered, nor been aware of.

While in the course discussed here, the coach used a poll after the debate was over, some of the management-education literature we have read since suggests that a pre-debate opinion poll might also be useful. In particular, Dushkin/McGraw Hill (1997, p. 7) suggests that "students … have to be aware of their own biases when analyzing arguments. One way to reduce a possible 'sympathetic effect' when considering an argument is to test students on their opinions…before they are discussed….[This] may well reduce the effects of unconsciously held preconceptions." Dushkin/McGraw Hill goes on to describe how the University of Maryland uses an Opinion-Assessment Pretest in which students have to indicate their opinions on the issues before the debate starts.

Student feedback

We gathered student feedback

Making the Most of Text-Based Instruction

Having taught online for more than five years, at several institutions, using a variety of course management systems, Thomas C. Richards, professor of information systems at the University of North Texas, sticks to a text-based approach rather than using the latest multimedia. He does this because of the amount of time and other resources it would take to develop and because some students do not have high-speed internet connections would likely have trouble accessing any audio and video course elements he might include.

Richards has taught online for the University of North Texas, the University of Phoenix, the University of Dallas, Baker College, and Capella University. He has been trained by three of these institutions and has used Outlook Express, Blackboard, WebCT, and Lotus Notes to deliver his courses.

His home institution has a staff to help instructors incorporate high-tech features into their courses, but he has never sought its assistance because of the time it would take to develop courses that go beyond text.

Each of Richards' courses features text lectures, some of which are provided by the institution and some he has written himself.

"My philosophy is to keep them rather brief — two pages maximum. You can't expect students to read information on a screen for an hour, and you can't them to print something that's 40 pages long," Richards says.

Preparing for threaded discussion

The main strength of the text-based format is the threaded discussion, a prominent feature in Richards' courses. Because many of his students are first-time online learners, he makes his expectations clear. He asks students to post information about themselves to get them comfortable participating in these discussion and to create an environment conducive to learning. And "without being threatening," he explains that participation in threaded discussions can count for one-tenth to one-third of a student's grade (depending on the course and the institution).

Most students understand the expectations and actively participate, but when they don't, Richard's sends a friendly e-mail asking them to telephone him if they are having problems and want to discuss participation. "Those who call have misconceptions about how the course functions or technical problems," he says.

Threaded discussion serves two main purposes in Richards' courses: it simulates the discussion that would take place in a face-to-face classroom, and it replaces the discussion students would normally have outside the classroom. And just as he would not restrict the conversations students have outside of class, he does not restrict threaded discussion topics. "But I do ask them to be sure to change subject line in their postings so others realize that they're no longer talking about the original subject," Richards says.

A typical prompt

The threaded discussions go beyond the course readings and lectures. A typical prompt will read: "What do you believe the long-range impact of computer crime is going to be in the future use of computers in business. Think long range — ten to 30 years."

Richards tells his students not to summarize the readings but to do further research on the web and respond to each others' postings.

The following response to a student's posting on this prompt illustrates the type of dialogue he tries to elicit: "Chris, I have to say that I disagree with your argument …. Businesses have already shown that they are willing to absorb these losses by remaining in the e-commerce business. If the risks are too high and they're losing too much money they wouldn't be in it …."

Instructor's role

Most of the institutions Richards has taught for require the instructor to be active in the threaded discussions and respond to students' e-mails within 24 hours.

"That means I'm out there every day reading the postings and commenting on them, referring [students] to resources, and that sort of thing," Richards says.

The University of Phoenix audits each instructor once a year to ensure that his or her postings contribute to the discussions and add real-world experience.

"I follow their procedures pretty closely. We are to respond to students' questions and actively participate in a positive manner. Even if a student criticizes you, you can't be negative. I follow their procedures in my home university quite closely because I think they work, quite frankly," Richards says.

"I don't address the discussion prompt directly, but I do respond to students' responses and read what they've written. I usually target one statement I find interesting and comment on it. I encourage them to go out on the web to find sites related to the topic," Richards says.

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through the discussion databases and through a formal course evaluation. In general, students indicated that they liked the variety the debate format introduced into the course structure. They found it to be a good complement to the case work, and some noted that they enjoyed the theoretical exercise in what is usually a practically-based program. Many noted that the debate allowed for a more open and honest discussion than they had experienced before. They also indicated that they found the debate more thought-provoking than the typical case study. Further, they liked the novelty of being challenged to argue a side that they would not normally support—this helped them learn about the merits of an opposing view and think critically about both sides. Students indicated that they liked the poll because it helped them see visually and quantitatively how everyone voted and why. Overall, the debate and the poll seem to have increased the sensitivity of students for certain aspects and details that might have otherwise been lost. As one student put it, "had the argument been phrased differently, I would have voted differently."

What did we learn?

1. It is even more important to pace the debate in an online format than in a classroom. In an asynchronous online format, it is crucial to give adequate time for each step.
2. While it is important for the academic coach to clarify points along the way, it is also important for the academic coach to allow students to work out issues on their own (to minimize introducing bias into the process).
3. A simple debate format works well in the online environment. Clear instructions upfront are crucial.
4. The online debate format was very well-received by students. Student evaluations indicated that it was a welcome change from case analysis and added an element of "fun" and competition to the class.
5. Although the use of the online polls was a last minute addition, we were very impressed with how well it worked to provide closure. Student evaluations indicated that the poll helped them to reflect on their opinions and values.

What would we change?

In future courses, we plan to expand the role of the polling feature. In addition to the two polls discussed in this article, we are thinking of adding a pre-debate opinion poll. We may also adapt the debate format such that the students prepare both a position statement for "their" side and a list of answers to possible "objections" by the other side. This would help them better anticipate opposing arguments (Dushkin/McGraw-Hill, 1997). In addition, we are working on a more detailed marking rubric. We have also been discussing whether we can adapt the debate format into a panel format whereby members of a group are assigned a role on the panel (e.g. CEO, project manager, project sponsor, and customer).

Summary

Forcing advanced students to take one side created innovative arguments and new insights for both the students and the academic coach. Polling the students added another level of reflective thinking to our teaching approach. We definitely plan to use the format again in our project management courses. Based on the student feedback, the debate format appears to be a welcome change from case studies. We look forward to hearing from other readers on the use of debates in an online format.

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Instructor's 'Restrained Participation' in Threaded Discussions Gives Students Control, Ownership of Learning

When Karen Swan, research professor in the Research Center for Educational Technology at Kent State University, taught online courses, she used a very simple rubric for threaded discussions: each posting should relate to the course material and the student's experience. This, combined with a technique she calls "restrained participation," helped achieve her goal of eliciting diverse opinions.

Modeling, not dominating

Since the goal of the threaded discussion was to get students to express their opinions and react to each others' opinions, Swan made it a point to not dominate the discussion. However, students need guidance, particularly early in the course, Swan says.

Although online discussion is more equitable and democratic than classroom discussion, there is the danger that students will view the instructor as the authority, which can hinder student participation.

Swan used this perceived authority to model appropriate participation. "Students tend to adopt the [communication] styles of the instructor. If I'm formal, they're going to be formal. If I'm conversational, they're going to be conversational," Swan says.

She also made it a point to reduce the psychological distance between her and her students by
- revealing things about herself
- being self-deprecating
- responding to students by their first names
- using inclusive statements, referring to "we" or "the class."

"If I want to talk about a particular concept I will use examples from my own experience. Hopefully, they'll experience me as a person, not as a teacher."

Gradually, she reduced the number of postings she made to the threaded discussion. In the first two weeks of her courses, Swan would respond frequently to students' postings.

"Everybody knew I was listening and that I cared about their opinions. But a teacher's response can

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"If I want to talk about a particular concept I will use examples from my own experience. Hopefully, they'll experience me as a person, not as a teacher."

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just kill a discussion. So by the end of the course, I would be in there very little," Swan says.

Journaling

Swan made it a point to have some interaction with each student each week. Not all of this interaction was in the threaded discussion, however. Swan also had an individual dialogue with each student each week. Students were required to post at least one journal entry per week to which she would respond. The content of this dialogue was open-ended. It could be reflection on the week's work or something personal. Journaling also provided Swan with feedback she used to improve her courses.

"I've gotten everything from 'My cat died.' to very long, thoughtful

reflections on the course material," Swan says. "It's like making eye contact in the class, but it's really nice because you can do it with every student."

As the course progressed and Swan gradually withdrew from the threaded discussion, this one-on-one communication reminded students that she was still actively engaged in the course even if she wasn't as active in the threaded discussion.

An important supporting role

Online communication plays an important supporting role in the online classroom, Swan says. "I think that both the class materials and the discussions were two different kinds of support that went on in the assignments."

Online learning can be viewed as a convergent process. The first two steps are stating one's opinions and considering others' points of view. The other two steps are synthesis and testing. "These last two steps don't necessarily happen in the online discussion," Swan says.

The threaded discussions helped her students prepare for the synthesis and testing that occurred in the assignments.

"I think [threaded discussion] is a really important part of the process, but I don't think [the learning] is solidified until they do those other things," Swan says.

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