

Meet me at the Water Cooler

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Abstract: This paper looks at strategies and the technology used by current on line instructors to create a sense of community in their classes and technological advances that will be present in future class practices. This paper is an investigation of community building among the students and between students and their instructors in online courses. This paper will examine the teacher's role in interactive on line learning, asynchronous discussion boards and the wave of the future including numerous synchronous options. According to Etienne Wenger a community of practice is made up of individuals who "In pursuing their interest in their domain engage in joint activities. Having the same job or the same title does not make for a community of practice unless members interact and learn together." "The students in American high schools may have much in common, but unless they interact, they do not form a community of practice." Wenger (2001)

Introduction

The movement of many schools, towards the increased use of distance education, has raised the question of how to foster community among learners who are physically separated from each other. When distance learning online classes were first offered, generally it was accepted that students would be working as an isolated unit. As the number of on line courses increased across the states, futurist thinkers concluded that for e-learning to maintain a meaningful presence among the next generation of digital learners the use and appreciation of technology must be connected to a sense of community.

Face-to-Face Classrooms

The past two decades has witnessed increased interest in the concept of community in educational settings. Face to face classroom instructors work at creating a sense of community within their classroom. These teachers may make it seem effortless to create a sense of shared community between students and themselves within the walls of their classroom. Students and the instructor can share eye contact and mutual laughter or mutual concerns. Students and teachers can sense if a student is struggling and feeling down or they can join in with the child when they feel successful. Classroom teachers

know that strong feelings of community within their classrooms help to increase the flow of information among their classroom students and between students and the teacher, and it may increase the frequency with which students are able to ask for help from the instructor or from other students. A sense of camaraderie between class members increases the commitment to group goals, and increases the level of cooperation among members, and eventual satisfaction with group efforts. Collaboration is a best-practice educational technique allowing the “student” to gain a better understanding of a subject while the “teacher” reinforces his or her own knowledge on the same subject. Collaborative learning also has been shown to increase motivation, enhance social skills, and increase communicative ability in students. These same understandings and increased connections between students and students with teachers may not be as readily available to students in an on line classroom. The challenge is to create connections in distance learning classrooms so that those students and teachers can experience the transformative learning that can occur as the result of interactivity and collaborative peer learning and mentoring in classes. Innovations in the use of technology are allowing this to occur.

Virtual Classrooms

Teaching without a teacher’s presence in the classroom to provide direct instruction is an ever-increasing feature of 21st century education. Originally these distance-learning courses were generally acknowledged as self-paced individual study type experiences with a focus on the convenience to the learner of having a course at his fingertips any time of day. The flexibility to acquire a degree through online classes offered opportunities to members of rural communities and others whose schedules did not permit them to attend classes to continue their education. To fully maximize the benefits of distance education and online instruction, it is important to create active learning experiences to enhance the meaningfulness of content knowledge. Students need to be encouraged to be engaged to become active participants in the class and productive consumers of the information they are learning. Transformative Electronic learning (E-learning) can occur as the result of online interactivity and collaborative peer learning and mentoring. Best practices in online education recommend pedagogy that supports the development of learning communities

Communities of Practice in Virtual Classrooms

How can this sense of community and active learning be achieved? “ Many communities start as conversations. So providing a conversation utility where people can open a discussion is a good place to start.” (Wenger 2001). Vygotsky’s learning theory emphasizes that learning is social and includes arguing, reflecting, and articulating to others (Vygotsky,1978). Dialogue should be considered an essential element of human learning, particularly for distance education. This includes exchanges between students and teachers, contacts between students, interactions between students and others not directly involved in their learning processes and even dialogue in the form of self-reflective thought.

Asynchronous Online Discussion Boards

Computer-mediated communication facilitates online discussions and interaction in distance education courses. The most widely used forums that can facilitate computer-mediated communication is the course discussion board, which is used to facilitate learner to learner, learner to instructor, and learner to content online interactions. It allows students to ask peers for their opinions, elicit information, seek clarification, and offer feedback to others. With the use of an electronic discussion board, which is an electronic asynchronous message board, which allows text to be input and documents to be uploaded as a message attachment, learners acquire and retain new information by engaging in dialogs with their classmates through written communication. Students can use the discussion board forums to stimulate conversations regarding a particular topic. The use of electronic discussion boards can create a natural learning environment that promotes social interaction between learners, thereby developing an authentic discourse community.

Asynchronous online discussions are increasingly integrated into online learning environments as well as into traditional face-to-face courses because they offer unprecedented opportunities for educational interactivity. They provide a virtual conversational learning environment in which students are likely to learn as much from one another as from course materials and lectures. On line discussion forums are virtual social gathering spaces within communities, the equivalent of the office water coolers.

“The Watering hole became a place where we learned from our peers — where we shared the news of the day. The learning at the watering hole was less formal. It was peer teaching, a sharing of the rumors, news, gossip, dreams and discoveries that drive us forward. Each participant at the watering hole is both learner and teacher at the same time.” (Thornburg, 2007, p. 2)

On line class discussions can occur in the following formats: whole class, small group, instructor-student, student-student, and in less focused social frameworks. It can be more effective to divide larger classes into smaller groups to encourage increased participation and reflective interaction among the students, while small classes can effectively participate as a whole. Group work projects encourage learner-to-learner interaction that is essential for community building.

One of the benefits of online discussions is that due to the ability to expect and document mandatory participation of all students (rather than just the vocal students in a face-to-face class who often volunteer), all student voices can/must be heard. Conversations in the face to face classroom “tends to favor the ideas of the most vocal and limit independent processing of material for all but the responder” (Scardamalia and Bereiter 1994) In an on line discussion each student is responsible for contributing to the discourse. Also participation can easily be documented. In addition, on line discourse can eliminate the turn taking problems. Classroom discussions typically feature the

teacher as the point of reference, if only to manage the turn taking, with asynchronous discussions over a computer network, any participant can take a turn at any time. Each student can respond to the group or to an individual, they can respond to the last posting or one that was posted yesterday. The student does not have to be the fastest at processing and emitting information to get their point across.

On line communication can diminish student inhibitions regarding communication by removing psychological and social barriers to student-teacher and student-student interactions. “When networks cross classroom boundaries younger students question and challenge older ones. Those not proficient with language can represent ideas graphically or copy and edit text from other notes to express their own ideas. ...this can offer opportunity for culturally different students to appropriate ideas in their own ways and for their own uses.” (Scardamalia and Bereiter 1994)

Online discussions also create a socially based learning environment in cyberspace. In order to communicate, students are allowed the time to create reflective, well-planned responses. Students have the ability to reflect before responding over e-mail, and may have a higher level of confidence that comes with writing rather than public speaking. On line discussions create archived discussions that can be accessed and reviewed as needed. It can be possible to review the transcripts of an on line discussion to observe the progression of the written discourse. Certainly, in order to legitimize the community as a place for sharing and creating knowledge recognized experts need to be involved in some way, even if they don't do much of the work. (Wenger 1998) Effective management of discussion board forums is critical to the overall instructional outcomes of the activities and can be used to establish forums that encourage thoughtful, reflective dialogue.

Communities of practice do not usually require heavy institutional infrastructures, but the members do need time and space to collaborate. They do not require much management, but leadership is required. The art is to help such communities find resources and connections without overwhelming them with organizational meddling. (Wenger 1998) It is important that instructors using on line discussion board's forums design activities to meet multiple learning objectives. Teachers must consider the content and an appropriate topic and must determine what roles the instructor and learner(s) are to play. Online discussion learning objective can be designed to enrich the interaction between the learner and the course content. Discussions can assist students to develop critically informed understandings about topics. Discussions can be used for posing content questions, soliciting experiential responses, and providing problem-based learning opportunities that engage students in critical, higher order thinking tasks. Electronic discussion board forums can be used to provide experiential learning opportunities within the context of problem-based questions. These components should be interrelated and focused on content goals and objectives that promote learner engagement and critical thinking. To facilitate productive discussions, the instructor or moderator must promote coherent interaction and deeper levels of thought.

Do online discussion boards allow for good learning? Analysis of online courses and assessment of the level of discourse through content analysis of contributions of

participants to online discussions has been common since the beginning of online discussions in the 1980s. There have been concerns about the cognitive levels and types of interpersonal interaction achieved in online discussions, since the typical interactions of the face-to-face environment were modified by the technology. Dooley and Wickerstam concluded that although critical thinking does occur within the whole class discussion, patterns that emerged within a whole class discussion provide evidence that it is better to move students into smaller virtual learning communities for online discussions. Through the implementation of smaller virtual discussion groups, students and instructors in online courses are better able to engage in quality discussions with a higher degree of interaction, remain focused and on-topic, and better manage the numerous threads that develop within the forums. Forums with fewer individuals have the potential to provide an environment for learners to have equal opportunity to voice their opinions and thoughts and demonstrate their understanding to their peers and instructor. (Dooley and Wickerstam 2007) Smaller groups may create stronger learning communities.

An online discussion can legitimize class participation. Members of the online class must feel supported and connected in order to create a community of practice. Online discussions recognize their mutual work and give members the time to participate and create the crucial online connections. Thereby creating an environment in which the value of communities is acknowledged. It is important to acknowledge to the students that intellectual discourse includes even less-recognized aspects of ordinary classroom life. “Merely introducing the term ‘communities of practice’ into an organization’s vocabulary can have a positive effect by giving people an opportunity to talk about how their participation in these groups contributes to the organization as a whole.” (Wenger 1998)

There are restrictive factors in online discussions. One is that many students may not feel as comfortable or as able to contribute to a written discourse. Their skills may be more obviously demonstrated in an oral presentation. Another drawback is the obvious separation between participants. This circumstance is good in that students cannot type cast each other and may even talk to someone online that if they had visual sight of they might ignore, but for other students, it can be a challenge for them to connect and communicate with other students that they have never met face to face. Another challenge is getting the student to contribute to the discourse. If the instructor has to resort to forced participation by means of imposing a grade requirement on the dialogue, the unregulated nature of some of the discourse will be lost.

Discussion boards often lack the same immediate continuous feedback through social interaction that would be present in a face-to-face classroom. This can sometimes leave a student without the information needed to create a response or to truly understand what another student may have meant in an e-mail or discussion posting. Also a challenge with virtual collaboration is the possibility of lurkers being present. Lurkers are students, who remain on the fringe of conversations and collaborations, observing and listening, but not actively participating. Most lurkers are either shy, feel inadequately educated on a given topic, or are unprepared for the discussion. They may

also be uncomfortable expressing their thoughts in written form on e-mail lists. Lurkers enjoy reading others' posts and responses to them, but refrain from adding their own contributions.

Technological Innovations: Synchronicity

In the recent past the only option for an on line class of students might have been a static web page which would have been used to describe class activities and publish essential course content. On the web page there would be a link for a discussion tool and an email feature to alert members when new material was posted on the static site or for students to communicate in writing with the instructor. These static pages represented individual publishing and were usually managed by the instructor. Weekly class related alerts helped focus the student's attention and were always created by the instructor.

But technology shifts. New modes of everyday communication-textual, visual, audio and video-are already part of almost every high school and college students' social life. (Yan 2008) Youths use digital media such a social networking sites and video games, to understand and participate in their selected society. Teens may even learn social skills online. They develop interests, express themselves creatively and give each other feedback, all on line. In their personal communications, they employ new kinds of communications such as blogs and wikis. Blogs make self-publishing easy and personal and add unique individual voices into cyberspace. Students are used to constant updates and being able to share their ideas in a contemporary manner. Comments can be added to blog posts making blogs more conversational, like discussion boards. When these same students signed up for online classes they demanded these social networking tools to use in the course content.

Blogs can be great tools for class interaction. "Blogs can be networked and created by teachers and students to form a community of blogs where students in a single class or even all students on a given campus can each present their own findings and discoveries." (Yan 2008) Using the blog/portfolio environment at Emerson College, "students are publishing their work, thoughts and ideas on a regular basis." Students "post all writing and multimedia work from several classes within the blog/portfolio environment, and use the course blogs for organizing collaborative projects." (Yan 2008)

Online classroom instructors can also set up wikis for groups of students. A wiki is a document or documents that are web based and can be written collaboratively, using a Web browser. A defining characteristic of wiki technology is the ease with which pages can be created and updated. Wikis allow students to give feedback and make suggestions and changes and jot down ideas. Everyone can be an author of the wiki at the same time. The capabilities of a wiki in the classroom can broaden the learning experiences, as student groups build rich, deep content over time. It is important that instructors use wikis in the same manner as when they are using on line forums, to design activities to meet multiple learning objectives. Instructors must create the structure of the wiki, invite students to join and then provide the students with guidelines on what kind of content should be submitted and how often. Creating a wiki in a curricular format keeping in

mind the class guidelines and providing the students with information about the purpose and format of the wiki leads to greater success within a course. Individual campuses can purchase school-specific collaborating tools ... which give them the ability to control the level of openness by denying outsiders without passwords to access the network. (Yan 2008)

The static web page has been improved upon by the use of a program like Blackboard or Moodle, which allows for the opportunity for direct communication between a teacher and students through same standard email and discussion boards but with the new added feature of the virtual chat room this may also be known as synchronous conferencing. These programs use a combination of media, including audio and video streaming, which provides a sense of copresence. Many instructors can now use these programs and their capabilities to add content-based presentations via Whiteboards with asynchronous question and answer time to make these widely spread student communities more productive. Programs such as Skype, Elluminate and Live Classroom have user reaction indicators (e.g., mood indicators) and polling and voting capability, which allow students and instructors to assess their presence awareness. Now students can use these tools to talk, hear and see each other. The students can converse and share ideas just as they can in a synchronous chat but now they can hear each other's voices. It serves as an excellent vehicle for topic discussion and for individual and group participation, as well as for content and assignment clarification and expansion. The virtual chat room can be described as an open forum opportunity for active participation and learning for both students and teachers. These innovations may increase the ease of creating an online community of learners.

Synchronous chats or discussion links have many advantages over Asynchronous links. For example, after whole group instructional presentations, small groups may break off to work on certain aspects of the corresponding assignment, chatting within their group. After a time spent sharing with this smaller group, students could then regroup and have one student present their small group findings to the entire class. This can be an excellent option for a large class of students where simply reading through written responses can be a daunting task. However, there are some drawbacks of synchronous chats, which point at a major issue in on line classes. Students must be online at the same time, which can be difficult to coordinate and can defeat the exact purpose as to why these students are taking the class on line, for the lack of time constraints. Also, with a large class of students, synchronous chats can create a lot of dialogue, which can quickly lead to a lot of instant reading and become confusing when students are trying to process the discussion while simultaneously composing responses. These synchronistic chats may be useful for holding online office hours, to allow students to ask a question of the instructor. Or just to connect with him or her in a more personal, off the record manner.

Technologies adopted in classrooms today, including blogs, wikis, social networking and online learning communities, are keeping teachers and students connected in and out of the classroom. They are creating opportunities for groups to share, collaborate, showcase and grow together. The next step for effectively facilitating learning in this format may be developing the use of mobile technologies (think hand held). On line learning will

truly be mobile learning when mobile learning devices are used. Contrast this to the more dominant model of the online student keeping in touch with a desktop computer.

The use of various types of communication (i.e., phone call, voice /text messaging, multimedia messaging, email, Web access), that provide real-time online interaction in a series of short burst learning activities, with features such as voice/video recording for story telling or even a “mobblogging” journal, complete the roster of characteristics that define effective use of mobile technologies in teaching and learning. The ability for more immediate interaction with teachers and fellow students, and the portability and affordability, of smaller, hand held wireless devices, coupled with their capacity to accommodate learners from different backgrounds, make mobile devices a future logical choice for educators. (Shih & Mills ,2007, p. 3)

Community of Practice (CoP) and student satisfaction

Menchaca and Bekele’s student survey form asked on line students to respond to questions regarding their satisfaction with their on line classes. In response to the questions regarding what components are critical to the success of online learning, both students and faculty indicated a strong belief in the value of group work and collaboration for the success of the online learning environment (OLE).

Their typical words or phrases included ‘collaboration,’ ‘teamwork,’ ‘group work,’ ‘small groups,’ and ‘cooperative.’ Student responses included “the cooperative groups online ensured success and involvement.” One student, when asked to identify critical success factors for online learning stated: ‘community, community, community.’ Other student responses included ‘the environment should foster a feeling of community and camaraderie,’ ‘the cohesiveness of the group is extremely important to the entire learning environment,’ ‘a community of learners is essential to success,’ ‘the knowledge that learning is a social process and that technology is a tool to allow that social connection.” (Menchaca & Bekele 2008, p. 244)

Conclusion

As the demand for on line classes increases so does the need for the technological innovations to allow these distance-learning students to create a sense of community via long distance. Students need to be able to connect in ways that allow them to interact on group projects and work through content questions together. Additionally, learners benefit from community membership by experiencing a greater sense of well being and having a larger set of willing individuals to call on for support. Online learning classes will continue to touch the lives of even more individuals. The need to create a sense of belonging to between these students and their course content and to other students

increases. It seems that technology is improving at the same pace and is ideally designed to help educators implement this unique brand of education.

Technologies adopted in schools today, including blogs, wikis, social networking and online learning communities, are keeping teachers and students connected in and out of class. They are creating opportunities for groups to share, collaborate, showcase and grow together. With increased advancements in technologies online learning communities can incorporate students from different backgrounds with vastly diverse learning styles into a education setting In addition, they allow exchange of information and ideas not only within the confines of a single class, but across schools, districts, states and the world. (YAN 2008,p.30)

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