

...ALNs (*Asynchronous Learning Networks*) might just as well be used to represent the term *Anywhere/Anytime Learning Networks*.

## Linking Collaborating Special Education Teachers

**Ann Knackendoffel**

Few would disagree with the following statement: When students participate, they learn more. Yet, novice and experienced teachers alike can attest to many students being passive participants in their coursework. Students often arrive at class with the expectation that information will be imparted to them in as pleasant and painless manner as possible. Unfortunately, passive student behavior is not limited to only elementary or secondary classrooms. It is also seen in graduate-level teacher-education courses where the students occupying chairs seem to effortlessly slide from the active teacher mode into the passive student mode. Surprising? Not really when you consider that often these adult-students come to the university after putting in a full day of teaching and, in many cases, after driving a considerable distance before ever arriving for their classes on campus. Even students taking their course work in the summer face challenges such as intensive classes compacted into short time frames, often meeting several hours a day and involving literally hours of outside reading and projects daily. Thus, a dilemma many university educators face is how to get students actively involved in meaningful problem solving and student-directed class discussions? Ironically, if active student participation is achieved over the course of the semester, instructors are then dismayed when the dialogue is arbitrarily and abruptly cut off at semester's end just when meaningful discourse begins to emerge and blossom. Until recently, this situation has been accepted as simply a reality of a university calendar (Simpson, Whelan, and Zabel, 1993).

Years of teaching university courses confirms that adult students vary widely with regard to their level of in-class participation. In any given course, some students will be extremely verbal and contribute frequently to the discussion at hand, others will participate sparingly, and a few seldom utter a word the entire semester. These are learned realities based on years of traditional face-to-face teaching experience. In a graduate-level course on consulting skills for special educators, I have experienced each scenario many times over, and, until recently, had been unable to find a solution. To address the problem of getting students actively involved in class, I introduced an asynchronous technology-based component to my summer consulting class. In doing so, I also removed the barriers the university semester calendar placed on a traditional face-to-face taught course. This article describes the integration and application of technology into a traditionally taught face-to-face university course and the results from both a student and instructor perspective.

While preparing to teach a course entitled "The Consulting Process in Special Education," I learned of a technology-based application called Web Crossing™ <<http://webcrossing.com/>>. Web Crossing is

---

**Ann Knackendoffel is an Assistant Professor of Special Education at Kansas State University.**

a web-based discussion software which facilitates threaded discussions among specified on-line community members. For the purpose of this class, the asynchronous communication feature of Web Crossing was utilized. Asynchronous communication is two-way communication, one-way at a time. A historical example of this mode of communication would be the use of the U.S. mail and a more modern example would be electronic mail. The idea is basically that one person sends a message, and then after some period of time, the receiver of the message responds. The persons involved may or may not be on the system at the same time. Asynchronous communication thus removes many of the time constraints of face-to-face or real-time (i.e., synchronous) communication. Anyone can access the discussion via the Internet through the University's College of Education home page. No special software is needed by the participants other than Internet access. Discussions on Web Crossing are threaded.

This simply means a series of messages were posted as replies to each other. A single discussion topic may contain many threads covering different subjects. By reading each message in a thread, one after the other, it is possible to see how the discussion evolved. A new thread is started when a message is posted that is not a reply to an earlier message. The discussions generated for the consulting class were organized by topics and placed within folders by topics or small group discussion formats. Members of the group could post questions and get feedback from others in the class. Web Crossing allows dialogue beyond the student and teacher level and creates a learning community among the members of the class. This technology-based application has the potential to alleviate some of the problems inherent in teaching a process-type consulting class which meets several hours a day during a three-week summer schedule. Another technology-based application utilized in the class was a weekly on-line journal between the instructor and the individual students in the class. Students used the journal format to reflect on the course content from the week and its applicability to their individual roles. The instructor responded personally to each post, often providing direction, lending support, and/or posing questions for further thought.

### ***Rationale for Technology Usage***

From an instructor's viewpoint, there were several areas of frustration inherent in a traditional face-to-face university course. The goal of exploring various technology-based applications was to address some of these concerns and thus, better meet the needs of adult-learners in my classes (Spooner, Spooner, Algozzine, and Jordan, 1998). An over-riding goal was to move away from the traditional classroom experience best characterized as a "sage on the stage" structure with its a one-way flow of information. The exchange of information possible with an on-line asynchronous learning network (ALN) had the potential to move toward a "guide on the side" model. Outlined below are a list of frustrations pertinent to my course which I wished to address through the integration of technology into the course.

### ***Maintaining Student-to-Student Contact After Course Ends***

One of the drawbacks of teaching a problems-based process class such as the consulting course during the summer is that in-class discussions regarding obstacles these teachers are likely to encounter during consultation efforts are often hypothetical rather than the actual problems these teachers face while working on the job. Since the teachers in the class do not function in their roles during the

summer break, they are unable to study and contemplate the information learned in the course and immediately apply it to their collaborative efforts in their schools. Thus, historically, when these teachers returned to their jobs in the fall, and could benefit most from problem-solving ideas generated by members of the class, the network of support they developed with one another and had come to rely on during the three-week summer class no longer existed. During an intensive three-week class such as this involving communication and problem-solving process skills, students become very connected and begin developing strong collaborative relationships. Many members of the class either started new jobs in the fall after the class ended or they tended to be relatively new in their teaching/collaborating positions. Thus, these relatively new and inexperienced special educators could benefit from on-going coaching and mentoring as they navigated through relatively new and uncharted waters of collaboration for them personally.

### **Encouraging Active Participation in Class Discussions By All Students**

Like all classes with adult learners, there existed a variety of personalities in the consulting class from the quiet, reserved students to the outgoing and verbal persons, and, of course, everything in between. As a result of these diverse personalities which comprised our group, participation in in-class discussions were mixed, with some members of the group contributing frequently and others volunteering very little. A variety of techniques were incorporated within the class to promote participation and discussion. For example, each class session began with students taking turns sharing something they learned from the reading which was personally meaningful and relevant to their teaching/consulting roles. Additionally, frequent use of small group discussions and activities were utilized throughout the course to promote active participation by all members of the class. Even with these strategies in place, the level of participation and contribution to these in-class discussions and activities varied greatly between participants.

### **Giving Students a More Active Role in Generating Discussion Topics**

In most traditionally taught university courses, the professor determines the course content and poses the questions for class discussion. Studies have shown relatively little class time is typically devoted to questioning and this is complicated further by the percentage of low-level (i.e., cognitive memory type) questions versus higher-level (i.e., divergent and evaluative) questions incorporated into most lecture-type courses (Barnes, 1983). As Turoczy (1997) stresses, to engage higher-level thinking in adult learners, instructors must pose more questions that demand higher-order thought processes. Furthermore, for an effective questioning process to take place, ground rules that permit and motivate everyone to participate and ensure respect for varying ideas must be established. Research on adult learning preferences show adults have a desire and need to be self-directed in their learning. They also need a time perspective for learning that is oriented to the here and now, and a problem-centered focus on learning (Dettmer, Dyck, and Thurston, 1999; Tice, 1997). By incorporating an on-line discussion forum, students are encouraged to respond not only to questions posted by the instructor and other students, but also pose questions of their own to other members of the class. This format allows the course instructor to

more easily move into the “guide on the side” role and encourage self-directed and problem-centered learning among adult students in the class (Sokol and Cranton, 1998).

### **Encouraging Meaningful Problem Solving on Actual Dilemmas Class Members Face in Their Current Consulting Roles**

As part of the course, individual implementation strategies are discussed, and a personal “consulting blueprint” is developed by the teachers to guide their collaborative consulting efforts. While these proposed consulting plans are often good first steps, they generally fall short of full implementation. Teachers engaged in new collaborative efforts need continued guidance and a forum where they can problem solve on pressing issues as they arise. Further, many special education personnel function in isolation from other special educators and therefore, cannot easily take advantage of peer collaboration with regard to implementing the nuts and bolts of their consulting plans. By introducing web-based asynchronous discussion groups during the class, participants could continue their discussions long after the last formal class meeting and seek out guidance and support from their colleagues whose opinions and experiences they learned to value over the duration of the course.

### **Procedure**

During the first class session, students were given a brief tutorial on how to register and access the class on-line discussion forum. If students had Internet access from their personal computers, they were given the option to access the discussion from their home computer or by using computers in various labs on the University campus equipped with Internet access. Eleven of the 14 students in the class had access to the Internet through personal computers at home or work.

Students were divided into four teams with three to four members in each group. Team membership was based on similar job roles (e.g., elementary vs. secondary, general educator vs. special educator, self-contained vs. inclusive setting, etc.) or areas of special education certification (i.e., LD, E/BD, MR, gifted). Digital photos of each group were taken on the first day of class and posted within each team folder to be viewed as part of the on-line discussion. The purpose of the teams and photos was to quickly increase familiarity within the groups during the early days of the course to facilitate comfort level within the discussions. Initially, the posted questions were instructor generated and related to a topic covered in the assigned reading or being discussed in class. Students were encouraged to read the posts daily and respond at least twice a week as part of their class participation component. Web Crossing allows each subscribed or registered member of the group to read all the posts/messages by other members of the class. While the class was divided into teams for purposes of organizing the discussions, all members of the class had access to each team folder and could read the posts of other teams, should they choose to do so. Students also could choose to post within their team folders or post questions to the class as a whole. Soon class members were responding to each other's posts and creating their own discussion threads thus eliminating the need for instructor-guided discussions.

### **Results**

Across the three week period while the course was in session, a total of 133 posts were generated by the students resulting in a mean of 9.5 posts per student ranging from a low of 4 posts across the three

week period for one student to a high of 14 posts for another student. After the course ended, participation in the on-line discussion was tabulated. Results showed that all but two students posted regularly (i.e., without missing more than a day in between posts). One of these students was having technical difficulties connecting to the system from his home computer during the first two weeks of the class but did post regularly during the last week of class when his technical problems were solved. The posts were also evenly distributed across the three weeks with 47, 45, and 41 posts respectively across weeks one, two and three. Typically, students first responded to the instructor generated question and then, based on responses from their classmates, ventured off into various threaded discussions related to comments or topics introduced by other students in the class. Ten entirely new student-initiated discussions were generated across the three week time-span of the course.

The data were also analyzed based on the frequency of on-line posts to discussions versus in-class contributions to discussions. Basically this comparison pointed out any differences between in-class and on-line levels of participation among students. For the purpose of comparison, students were divided evenly into two groups with one group being labeled "frequent in-class responders" and the other half of the class categorized as being "low in-class responders." The "frequent in-class responders" generated a total of 51 on-line responses as compared to 82 on-line posts from the "low in-class responders."

For approximately half of the students, it was their first attempt at using the Internet for communication purposes and course participation. Consequently, many were understandably reluctant in the beginning and confided in me their fear with this component of the course. By the end of the three-week course, students reported via the class evaluation their involvement in the Web Crossing piece of the course was one of their favorite parts of the class. In fact, an added benefit which had not been anticipated at the onset, was that students who had little computer and Internet experience coming into the course felt more comfortable with using the computer as a communication tool and accessing the Internet for information. Using a likert-type scale with one being low and ten being high, teachers rated their comfort level using technology both before ( $M = 6.1$ ) and after ( $M = 7.9$ ) the three week course. Additionally, their comfort level with the Internet went from a mean of 7.0 to 8.4. Both outcomes are desirable competencies for special education personnel functioning in collaborative roles. Overall, students rated both their satisfaction with Web Crossing ( $M = 8.2$ ) and the on-line journals ( $M = 8.6$ ) as high. One student wrote this comment on her course evaluation regarding the technology component of the course. "I liked being able to share in such an open, reflective way and receive feedback. It sets me at ease knowing there is open communication that doesn't occur during pressed available class time but instead when time is available for me to reflect upon my thoughts."

### **Discussion and Lessons Learned**

Regarding the four areas of frustration outlined at the beginning of this article, the technology-based applications generally had a positive impact and were able to assist in achieving the desired outcome in at least two of the four areas. Specifically, almost all members of the class participated regularly in the on-line class discussions therefore accomplishing the goal of encouraging all class members to participate in course-related discussions. The most interesting

observation is that it appears students who posted most frequently on the on-line discussions were not necessarily the most active in-class discussion participants. In fact, the data showed some of the least vocal persons in class were the most active participants in the on-line discussions. Based on this limited study, preliminary results would indicate that asynchronous on-line discussions have the potential to engage those students who are the least likely participants in traditional class discussions. The on-line discussion forum gave "voices" to this otherwise silent half of the class. This finding, when joined with others' data regarding which students are most likely to succeed in Internet-based courses (Brown, 1998), adds one more piece to the puzzle regarding the potential of online applications in special education related coursework (Spooner, Spooner, Algozzine, and Jordan, 1998; Zorfass, Remz, and Ethier, 1998)

The data were also encouraging with regard to giving students a more active role in generating discussion topics. While the data showed students in the course generating ten new student-initiated discussions, that number does not accurately reflect the content of the other threaded discussions. At first glance, ten student-initiated discussions may seem a bit low, however, in analyzing discussion threads, many students initiated new topics for discussion within already existing global discussions such as "obstacles that hinder consultation and collaboration." While this particular thread was an instructor-initiated discussion, students quickly went off in many different directions as they responded to one another.

A related goal of this study was to encourage meaningful problem solving among actual dilemmas faced by these teachers in their consulting roles. This goal was partially realized in that clearly half or more of the posts were problem-solving in nature but most were dealing with problems individuals had experienced during the previous school year or related to anticipated obstacles for the upcoming school year. Therefore, to this end, problem solving did occur; however, it was not on-going during the actual occurrence of the problem.

Perhaps the goal which was most disappointing in its outcome was the goal related to class members staying connected once the course ended. In some respects, this was my central goal or most desired outcome from the use of technology-based applications in this course. After the course ended, students did not continue accessing the on-line discussions on their own. In reflection, I realize this is likely due to technical obstacles rather than a lack of desire to maintain contact with one another. The class was a relatively small group (i.e., 14 students). Therefore the expected activity level on the discussion forum after the course would be low. The way it was set up, students had to go to log onto the Internet site and check the various discussion folders for any new messages. This could be time-consuming and often resulted in wasted time since very few messages appeared after the last day of class. One can imagine that even the most persistent student checking the site and finding no new messages would likely come back less and less frequently and eventually stop checking for messages completely. Even as the instructor, I found in the first few days and weeks following the course, I would log-on to check for new messages, but after receiving no new messages time and time again, my visits to the discussion site became more and more infrequent. Recently, a feature has been added to the Web Crossing software which will allow for e-mail notification of any new messages posted to the discussion based on participant's subscription to a class listserv. In the future, I will have students

wishing to continue with the Web Crossing discussion, subscribe to the listserv before the last class meeting so it will be easier to communicate. Several students from the class have shared informally with me that they continue to keep in contact with one or two members of the class through e-mail. This was precipitated by the on-line communication first introduced to many of these students in the consulting class.

Initial efforts to incorporate an asynchronous discussion forum into a graduate level special education consulting course proved fruitful. I am encouraged by what I witnessed in terms of the overall enthusiasm for the medium and its ability to engage even the most reluctant in-class participants. I was also impressed and inspired by the quality of the interactions and the reflective and thoughtful problem solving that occurred between participants. While I was unable to eliminate all my identified frustrations with traditional face-to-face instruction, I learned enough from this initial effort to try additional technology-based strategies in future courses. This experience has only whetted my appetite for taking the next step in incorporating more asynchronous learning opportunities into my courses. In the future, I plan to incorporate on-line group projects, case-study analysis and problem solving, and possibly solicit student generated test items for the final exam. I also now believe participants would appreciate and benefit from a monthly "check-in" from me as the moderator of the group once the course ends and interested students are subscribed to a listserv. Posing a question requesting an update on current success in implementing their consulting plan should spur discussion and problem solving among the group.

This positive experience has caused me to see the potential for Asynchronous Learning Networks (ALNs) in the same light as John Bourne (1997) who so adeptly described ALNs as providing the capability to learn anywhere and at any time. The acronym ALN might just as well be used to represent the term Anywhere/Anytime Learning Networks. Both interpretations reflect and emphasize that ALNs are different from traditional distance learning methods because the learner can be anywhere and learn at any time. With this idea, the potential application and utility in graduate teacher education courses is virtually endless.

## References

- Barnes, C. P. Questioning in the college classrooms. In C. L. Ellner and C. P. Barnes (Eds.), *Studies of College Teaching*, (pp.61-81). Lexington, MA: Lexington Books.
- Bourne, J. R., McMaster, E., Rieger, J., and Campbell, J. O. (1997). Paradigms for on-line learning: A case study in the design and implementation of an Asynchronous Learning Networks (ALN) course. *Journal of Asynchronous Learning Networks*, 1(2), August.
- Brown, B. M. (1998, December). Digital classrooms: Some myths about developing new educational programs using the Internet. *T.H.E. Journal* [On-line serial], 26(5). Online: <<http://www.thejournal.com/journal/magazine/98/dec/>>
- Dettmer, P., Dyck, N., and Thurston, L.P. (1999). *Consultation, collaboration, and teamwork for students with special needs (3rd ed.)*. Boston: Allyn and Bacon.
- Gleason, M. (1987). Professors and the participation blues. *The Teaching Professor*, 1(7), 1.
- Simpson, R. L., Whelan, R. J., and Zabel, R. H. (1993). Special education personnel preparation in the 21st century: Issues and strategies. *Remedial and Special Education*, 14, 7-12.
- Sokol, A. V. and Cranton, P. (1998). Transforming, not training. *Adult-Learning*, 9(3), 14-16.
- Spooner, F., Spooner, M., Algozzine, B., and Jordan, L. (1998). Distance education and special education: Promises, practices, and potential pitfalls. *Teacher Education and Special Education*, 21(2), 121-131.
- Tice, E. T. (1997). Educating adults: A matter of balance. *Adult-Learning*, 9(1), 18-21.
- Turoczy, C. (1997). Question well to teach well. *Adult-Learning*, 8, 1-22.
- Zorfass, J., Remz, A., and Ethier, D. (February,1998). Illustrating the potential of an online workshop through a case study example. *Computer-Mediated Communication Magazine*, 5(2). Online: <<http://www.december.com/cmcmag/>>