This paper discusses the use of World Wide Web-based conferencing in the Collaborative Teacher Education Program (CTEP) at Indiana University. The CTEP, a program offering distance education coursework to in-service teachers in rural communities throughout southern Indiana, is described, and some of the obstacles and limitations involved in promoting ownership in courses delivered at a distance are considered. Alta Vista Forum, a World Wide Web-hosted, asynchronous, text-based conferencing system that incorporates two key elements for discussion--"forums" (collections of related information or resources that allow learners to interact on key issues and course concepts with other class members) and "teams" (shared environments in which select groups of class members can work together on designated tasks)--is described. Some features of Alta Vista Forum that are critical to promoting ownership are highlighted. Applying Web conferencing to distance education is addressed, focusing on the following three kinds of interaction required of CTEP students: posting examples from assigned projects, discussing course content, and consulting with peer teams. (Contains 12 references.) (AEF)
Using Web Conferencing to Promote Ownership in Distance Education Coursework

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Abstract: Distance education has traditionally been most effective with students who show exceptional levels of motivation, self-confidence and autonomy. But the real challenge for distance educators is to encourage these qualities in more typical learners. By adding a web-conferencing component to our longstanding rural distance education program, we are able to promote a greater degree of interaction and ownership among the teachers who take our courses. The article describes our use of Alta Vista Forums in our courses and highlights the ways this technology helps improve the level of participation and control exercised by class members.

One of the most important developments in education in recent years is a shift in focus from what teachers are doing to what learners are doing. Increasingly, educational research and practices are moving from a didactic model of instruction toward a student-directed model. Wagner and McCombs [1995] described student-directed instruction as "a conceptual framework for describing how a learner understands his or her world and approaches the process of learning inside and outside of school." A basic principle of student-directed learning is the fundamental importance of students' taking ownership for their own learning. Promoting ownership--encouraging learners to make choices and take responsibility for the direction of their own education--is an essential component of effective instruction [Langer & Applebee 1986].

Ownership is closely linked to "students' sense of personal goals and products" [Langer & Applebee 1986]. Many terms have been used to describe the attributes of ownership, such as goal setting, self-monitoring, self regulation, learner control, critical thinking skills, intrinsic and extrinsic motivation, communication skills, and personal autonomy [Honebein et al. 1993, Oliver & Reeves 1996, Pintrich & DeGroot 1990, Risenberg & Zimmerman 1992, Savery 1996, Steinberg 1989, Zimmerman & Schunk 1989]. Whatever the specific focus of each of these terms, their application to learning shares a common premise: understanding and optimizing the factors that support and encourage students to learn for themselves is a crucial element of successful instruction.

A strong sense of ownership is an especially critical factor for students in distance education settings. Learners who are not in close physical proximity to their instructors must often work more independently than students in traditional settings [Kember 1995]. In fact, many distance educators attest that independence and a strong sense of ownership are essential predictors of success in distance education students. As Riddle [1994] has observed, instructors describe the type of students likely to be successful in distance education settings as adults who are comfortable with less personal attention from instructors. Such students can more easily overcome the discomfort caused by the lack of direct instructor contact by means of their own intrinsic motivation to succeed [Riddle, 1994; Wagner & McCombs 1995].

But distance education must also cater to the needs of students who may not have such a strong natural inclination to ownership and self-sufficiency. Students who enroll in distance education courses do so because of considerations of schedule, location or availability, not because their learning styles or motivation make them good candidates for distance learning. Thus, instructors and instructional designers must make a deliberate
effort to promote and encourage ownership among students, especially for those who may be used to teacher-directed instruction where they make few choices for themselves. The ability of a program to build ownership may well mark its ultimate success or failure among the learners who do not present exceptional levels of independence and self-sufficiency.

Web-based conferencing is an internet tool that has enormous potential for increasing ownership and self-sufficiency among students, as it helps move course content from teacher-focused technologies such as two-way video to a cooperative learner-centered environment. We are incorporating web-based conferencing into our long-running distance education program to improve the participation and self-direction of students who have traditionally felt isolated or uninvolved in remote courses. In the next section we describe our program and discuss some of the obstacles and limitations involved in promoting ownership in courses we deliver at a distance. Then we describe the use of a web-conferencing tool, highlighting some features that are critical to promoting ownership.

**Description of the Collaborative Teacher Education Program**

For the past ten years the Collaborative Teacher Education Program (CTEP) at Indiana University has been offering distance education coursework to in-service teachers in rural communities throughout Southern Indiana. Cohort groups of 15-35 teachers meet for weekly classes at a central location, usually in a local high school or school corporation building. The instructors in CTEP remain at the university and provide real-time coursework through distance education technology. Over the years, the communication technologies we have used have advanced from speakerphones and the U.S. Postal Service, to computer-based audiographics and fax machines, to multi-point videoconferencing and e-mail. But one challenge that has remained constant is building ownership and personal involvement among the students in our classes.

From the start, our program has made an effort to make coursework learner-centered and applicable to teachers’ everyday work situations. Teachers in our classes participate in weekly practicum activities in which they apply course concepts to the needs of students at risk in their own schools. We encourage teachers to work in school-based teams or partnerships to build a support network that does not rely on the presence of the instructor. We have structured class sessions to be learner-directed whenever possible, having teachers act as on-site facilitators to lead discussions and present material from the text rather than having the campus-based instructors do these tasks. A typical class period involves several small-group work and discussion activities, with remote instructors acting as consultants more than as presenters.

Despite such practices, many in-service teachers in our program still feel a greater degree of isolation than they are used to in campus-based coursework. Without the opportunity for casual talks with instructors after class or in the hallway, or for face-to-face consultation during office hours, the teachers at remote sites often have difficulty expressing their needs and obtaining assurance and guidance about the work they are doing. More importantly, some teachers feel isolated from their peers, especially when they do not come from the same school districts as others in the class. Without the chance to meet with others outside of class to go over homework and discuss ideas, these teachers are unlikely to fully engage the course content and often do work that is cursory or misdirected. In fact, unless they quickly establish social relationships with others in the class, the teachers tend to drop out of the program altogether. For learners who do not adapt well to such circumstances, distance education can be a frustrating and disappointing experience.

Web-based conferencing offers a powerful tool for creating a more interactive and less isolated experience for distance learners. Because it promotes content-based discussion among students, it allows learners to share their concerns and develop their ideas in a low-stress environment that they can control themselves. By adding this technology to our distance education courses this year, we are able to expand and deepen the role that teachers in our program take in directing their own learning.
A Web-Based Conferencing System

Alta Vista Forum is a WWW-hosted, asynchronous, text-based conferencing system that incorporates two key elements for discussions: "forums" and "teams." A forum is a collection of related information or resources that allows learners to interact on key issues and course concepts with other members of the class. There are three types of forums: "Discussion and document sharing," "Newsstands" and "Calendars." Newsstand and Calendar forums are well suited for sharing group information and scheduling class events, as they allow learners to post news items and web pages and to coordinate meetings and other events with the entire group. Discussion and document sharing forums promote content-based discussion. Learners post discussion comments and electronic documents inside hierarchical folders, each of which can contain other folders, continuing on for many levels. This allows learners to create many levels of categorization and enables each folder to be dedicated to a specific topic.

A team is a shared environment in which a select group of class members can work together on designated tasks. Team members interact through a "Team Vista" page, which contains forums and other resources available exclusively to team members. From the team vista page, learners can also launch "chat" for synchronous text communication over the internet. Learners can be a member of more than one team: they may belong to small work teams of 4-5 learners as well as a large team that includes the whole class. In our class we have teachers grouped in small discussion teams that change every few weeks to provide a variety of contacts as well as in project teams that stay the same throughout the semester. We also have a whole-class team that we use occasionally for larger group work.

Many of the capabilities Alta Vista Forum offers for learner interaction are especially useful for distance education. Students can post their projects, ideas, or questions from formal class sessions. They can comment on others' work and answer questions, rather than limiting such feedback to instructors. Students can also make changes or additions to the topics being discussed, or propose new issues or conversation areas. At the same time, instructors can observe learners' contributions to the discussion and make determinations about their progress and needs. Or they may comment on students' works, answer questions, or interject new questions to guide and coach problem solving. The conferencing system thus offers the opportunity for students to have out-of-class interactions in which they have a good deal of control over the direction of their learning process. Unlike e-mail, which typically facilitates communication between instructors and learners, the conferencing system ensures that learner-learner interaction is also encouraged. This interaction diminishes the isolation of distance learners by allowing them to develop a continuing relationship with instructors and peers between class sessions, just as campus learners do.

Furthermore, because it is asynchronous and text-based, Alta Vista Forum is in many ways preferable for the needs of distance learners to more sophisticated web products that offer visual and voice communication in real time. As distance learners are often non-traditional students who work and raise families in addition to going to class, they can benefit from the lack of scheduling needed for an asynchronous forum. And the simple technological configuration of a text-based web product insures that it is available to learners who may not have ready access to the latest computer equipment.

Applying Web-Conferencing to Distance Education

To take advantage of these benefits, we are integrating Alta Vista Forum into the CTEP coursework this year to provide a supplement to the live class sessions we offer by two-way video. All discussion on the conferencing system is directed toward existing course content and practicum projects: rather than using this opportunity to create extra work for learners, we use it to help improve their understanding and application of the work they do. To structure discussions, we require students to participate in three kinds of interaction each week: posting examples from their assigned projects, discussing course content, and consulting with peer teams. For all three types of discussion, the asynchronous environment provides the opportunity for instructors to observe and evaluate the contributions of class members without interrupting or influencing the interaction.
Posting Work Samples

An important disadvantage distance learners face is the lack of examples or models for the work they do outside of class. By having teachers post their work we give them access to a much wider variety of ideas and approaches than the instructors alone can provide. In addition to the benefit of seeing the work of others, the teachers also benefit from posting their own work: when displaying projects to peers as well as instructors, learners tend to monitor their learning process more carefully and to take more responsibility for their presentations.

Each week we have teachers post examples from their projects to a conference site. Teachers begin to work with their own project team members to discuss and select examples. Then, they post their examples in a whole-class discussion and document sharing forum. This format allows the teachers to build their own ongoing database of coursework examples, which any of them can check to see how to complete a worksheet, to find ideas for teaching one of their students, or simply to measure their progress against that of their peers.

Group Discussion

The second type of interaction is a weekly group discussion of course content. Exploring ideas outside of class and without the active presence of instructors allows learners to develop their own understandings of course concepts and procedures, rather than relying on instructors' explanations [Duffy et al. 1998]. In addition, this type of web-based discussion is likely to prompt thoughtful and deliberate comments, as participants are able to reflect upon their ideas as long as they want, in contrast to live class discussions, which require participants to be rather bold and quick to contribute.

To structure these discussions, we ask students to address specific questions or issues relating to the course content or to their practicum activities. We divide the class into small discussion teams that change frequently to allow teachers to interact with everyone in the class over time. Each week the teachers begin discussion in these teams, exploring the issues for that week and fleshing out preliminary ideas. At the end of the week, the teams post their ideas in a large-group discussion and document sharing forum, and they respond to the ideas posted by teachers in other teams. This forum in turn provides a springboard for in-class discussion at the beginning of the following week.

Cooperative Projects

The third kind of interaction also involves small groups, but in this case the teachers work in teams throughout the semester. Project teams are formed according to shared interests or circumstances, grouping teachers by school, grade level or areas of expertise. In this way the teachers in each team are able to provide helpful suggestions or experiences to other team members. Each team has its own discussion space in which members work on assignments together, share copies of their work, ask for and receive advice, or relate the week's events and offer support. The format of this interaction is decided by the group according to its own needs: instructors offer suggestions, but no requirements. The only demand is that each teacher participate actively in the team each week.

Conclusion

Distance education coursework has traditionally been more successful with students who exhibit a
strong sense of ownership: students who are independent, who are highly motivated, who have a high degree of self-efficacy, and who wish to have a high degree of personal control over life's outcomes [Riddle 1994]. The challenge for distance educators has long been to build this kind of ownership in students with all types of learning characteristics. Educational research consistently indicates that all learners benefit from instruction in which they are motivated, in which they exercise control over their learning experience, and in which they are accountable for their own learning outcomes [Wagner & McCombs 1995]. Web-based conferencing offers a strong new approach for promoting these variables among distance learners. By offering a range of options for interaction outside of class time, web-based conferencing can encourage students to develop a higher degree of ownership, enabling them to direct the discourse of the class, to establish ongoing relationships with instructors and peers, to make informative decisions together, and to take greater responsibility for the learning process.

References


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