Abstract

This paper will introduce how technology was used as a tool to enhance telecommunications between a program coordinator, various faculty, and doctoral students. The Curriculum and Instruction Doctoral Program (C&I Doctoral Program) in College of Education at Northern Arizona University has been established since the early 1990's. However, because most students are in-service teachers located at various schools throughout the state of Arizona, it has been problematic for the doctoral coordinator to manage the program and communicate with students. Similarly, doctoral students in the program lack opportunities to communicate each other and often feel isolated throughout their doctoral program experience. Interaction between various participants, both students and faculty, has been difficult because of the vast distances. By creating student listserv and an interactive website including both synchronous and asynchronous communication methods, educational technology faculty and students helped the C&I Doctoral Program Coordinator in developing an effective way to manage the program and promote the communication between participants. This paper is consisted of the following three parts.

The Need for Applying Technology in Program Management

The C&I Doctoral Program in College of Education at Northern Arizona University has been established since the early 1990's. One of difficulties in the program management is that students are working and teaching in diverse areas of Arizona. For example, students may be
located in urban areas, such as Phoenix, while others are located in rural areas, such as the Native American reservations. The diversity makes it hard for the program coordinator to know about the exact number of students in the program (some students quit the program without notification) and the status of current students. The diversity also makes it hard for students to communicate each other and to know about school events. Furthermore, the needs of students can be quite different depending upon their locations. To improve the management and communication of C&I Doctoral Program, the technology in the form of telecommunications is found to be practical and effective.

The Process of Creating Telecommunication Methods

The process of designing, developing, and implementing this electronic communication system includes the following stages:

1. Initiation: The program coordinator, requested support from educational technology faculty, and volunteer students with a focus in educational technology in creating a C&I Program interactive website and listserv. All met to discuss the design and development process.
2. Needs Analysis: The volunteer students collected information through informal interviews and email inquiries about students’ needs for the content of the website. Based on the collected information, the initial website content was decided.
3. Financial support for project development was then procured through AZ-K12 Center/NAU PT3 faculty development funding.
4. Website Development: Developers used Dreamweaver MX to create the website, and used WebCT tools to set up asynchronous and synchronous communication in the form of chat room and Bulletin Board. During this phase, the PT3 staff also provided technical support.
5. Evaluation: Once the website was developed, the creators ask for feedback on the site from the program coordinator, educational technology faculty, and the C&I Doctoral Program students. Based on the collected information, the website was improved.

The Impact of Technology on Program Management and Communication

An interview and an online survey were conducted to the program coordinator and doctoral students, respectively. The analysis of the interview and survey shows that by using technology tools, both the management and communication in Curriculum and Instruction Doctoral Program have been enhanced. However, most importantly, the volunteer doctoral students were engaged in a meaningful project that provided them with the experience of utilizing technology tools to enhance their doctoral program experience and work with faculty in a collegial manner. One of the important outcomes within the scope of the PT3 Grant is to foster student-faculty collaborations on technology-based projects that will enhance faculty utilization of technology within their courses and programs in the College of Education.