DOCUMENT RESUME

ED 421 127 IR 018 846

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TITLE Facilitating Interpersonal Communication with Technology in Principal Preparation Programs.
PUB DATE 1998-00-00
NOTE 6p.; In: "SITE 98: Society for Information Technology & Teacher Education International Conference (9th, Washington, DC, March 10-14, 1998). Proceedings"; see IR 018 794.
PUB TYPE Reports - Descriptive (141) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Administrator Education; *Authors; *Computer Mediated Communication; Elementary Secondary Education; Higher Education; Instructional Innovation; *Instructional Leadership; Internet; *Principals; Student Motivation; Student Reaction; *Teleconferencing; Textbooks; Video Equipment
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ABSTRACT

This paper illustrates and explains the procedures, benefits, and precautions of using technology to personalize the learning experience. Specifically, conferencing technology was used to communicate with the authors of a textbook, "The Handbook for Teacher Leaders," (Leonard Pellicer and Lorin Anderson), used in a principal preparation program. In the fall 1995 semester, graduate students in the Instructional Leadership class at the University of Houston Clear Lake spoke with the authors of the book via Internet-based video conferencing software. The purpose was to aid the students to become more reflective about the content of the book. The overall reaction of students was favorable; comments showed that the session made the authors' messages from the book more personal to the students. Responses indicated that, even when students did not get the answer they wanted, they still felt that their objections were heard. The session had a motivational effect on the students, in addition to an informational purpose. There were many benefits for the authors as well. Preparing for such a conference requires planning and coordination; the overall result will have significant and lasting effects. Contains 12 references. (AEF)

Facilitating Interpersonal Communication with Technology in Principal Preparation Programs

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FACILITATING INTERPERSONAL COMMUNICATION WITH TECHNOLOGY IN PRINCIPAL PREPARATION PROGRAMS

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Technology is often cited as a cause for a more impersonal world. Technology has created speed and efficiency at the cost of personal encounters, long gone are conversations with real live phone operators. We have been inundated with recorded messages that tell you to press a number if you want a place, person, venue or menu. We no longer know the person who delivers the mail or the paper. Our world some would say is increasingly becoming more impersonal as we become more technologically advanced.

The evidence of the need for and the importance of human contact and interaction has never been more important (Adler, Rosenfield, Towne & Proctor II, 1998). Technology has freed our time and made it possible to have better communications than ever before, yet the complaints about the use of technology causing isolation continues to be pervasive in our culture. This paper illustrates and explains the procedures, benefits, and precautions of using technology to personalize the learning experience. Specifically, conferencing technology was used to communicate with the authors of a text book, The Handbook for Teacher Leaders, used in the principal preparation program.

The problem as discussed in the literature

The literature shows that our schools and universities are often being blamed for becoming more detached and less personal in their operations. Much of the literature commenting on the use of technology in education has ominous tones of "use it or lose it". Sudzina (1993) states that teachers' traditional beliefs may inhibit them from taking instructional risks and implementing technological innovations. Burke (1994) claims that higher education is trapped in a time warp and that new information technologies present a critical challenge which cannot be ignored if higher education is to succeed or even survive. He suggests that to succeed, faculty must overcome their own fears and resistance to technology and alter the way they teach and, therefore the way students learn. Technology can help higher education link access and excellence by tailoring learning to the diverse student needs and styles, while also allowing colleges to respond to critics by containing costs and improving quality. Twigg (1994) points out that these new delivery systems for teaching, together with our increased knowledge about how people learn are driving changes in attendance patterns and institutional structures in higher education.

Bagley and Hunter (1992) suggest that changes in teaching will come about because of the synergistic interrelationships among the changes in our views of learning/teaching, the integration of technology, and the restructuring in our educational systems. Jensen (1993) proposes that the emergence of hypermedia is bringing new and different possibilities for college teaching than did previous technology. He predicts that materials available to students, styles of teaching and learning, and the role of the instructor will change dramatically. Multimedia instruction, a computer-based system incorporating video, audio, and digital storage media, provides educators with the tools to bring learning alive. Multimedia may become the most common form of instructional technology with planning, adequate funding, and faculty development.

Thomas (1994) comments on the second revolution that is moving the use of computers into the area of instruction rather than administration. As the world moves into an electronic-driven postindustrial revolution, new realities call for change in the education system. The impact of technological changes will be reflected in more "expert" teaching via use of computers and videotapes, and replacement of the conventional paper, pencil, and book by computers. MacKnight (1995) predicts that colleges and universities will have to support advancing information technology including developing "supertech" classrooms. Whereas the mission of universities in the past was to accumulate, refine, and pass on knowledge, their new task is to educate and train people to manage and gain access to the universal data base of knowledge.

These predictions and trends can often cloud and even remove from the agenda the critical human component in the process of learning. Historically there were predications that

new technologies of radio and later television would replace the need for teachers and professors in the classrooms when in fact the opposite is true. The role of technology has almost always made promises for revolution and cost reductions. The teaching profession has always had an inordinate requirement for human resources compared to other organizations. This requirement of human resource quickly becomes the target for reduction in an attempt to become more efficient and effective. Technology often promises effective and efficient results; therefore, it can logically be proposed that the use of technology will result in the need for fewer people and reduced costs based on a more effective and efficient use of resources. McKeachie (1995) points out that during the 1950's television seemed to offer great promise for coping with the increased numbers of students as a result of the baby boom. Skinner (1954) advised that mankind was on the threshold of an exciting and revolutionary period and that education must accept the fact that "sweeping revision of educational practice is possible and inevitable" (p. 97).

Sudzina's (1993) study of the literature suggests, among other findings, that computers cannot replace good teaching; teachers are critically important in classroom computer use; computers can be an important component of an active learning environment; teaching is generally complicated through the use of technology in the classroom. People still need human contact. That is why solitary confinement is still the worst punishment that a prisoner can receive. We should have learned before the computer age the valued lessons from our colleagues before us that technology cannot substitute for teachers; learning still depends on student activity and thought. We should also have learned that technology when appropriately used can facilitate student learning. McKeachie (1990) who began his college teaching career in 1946 wisely observes the greater the advance the greater the complexity. " The circle separating what we know from the unknown becomes even larger" (p. 197).

Today a global shift in education is taking place, moving from a teaching focus to a learning focus. In the past decade, theories of the social construction of knowledge have resulted in the widespread use of collaborative learning techniques. Computer technology has been in the forefront of this movement,. This technology is most appropriate to complement face-to-face meeting with teachers.

Recent literature contributions about the technological revolution (Bruce & Shade, 1994) write about the potential of compressed video and presents teaching and learning strategies using this technology. One application of this technology was used on October 24, 1995, in the Instructional Leadership class at the University of Houston Clear Lake. Graduate students in the Leadership program were given the opportunity to speak with Leonard Pellicer and Lorin Anderson about their recent book, A Handbook for Teacher Leaders, which was used as a text and resource for this class. This highly readable book, with theory grounded in research, urging best practice was to be the topic of the conference. The purpose was to try and aid the students become more reflective about the content of the book. The premise was that having a visual and auditory communication experience, face to face, students would be able to more readily identify with the authors and be more motivated and thoughtful about the content of the book.

Design of the Cu see Me Conference

In order to use CUSM you must have a computer with a video digitizing card (e.g. any of the AV Macintoshes), a video camera, a microphone, and TCP/IP connectivity to the Internet. The software is free and is available over the Internet. While CUSM can work over a modem and phone line, the data transfer rate is so slow that the audio and video break up considerably and limit conversation. A better alternative is a direct connection to the Internet with a Tl line.

Any two CUSM users anywhere in the world can converse directly with each other simply by entering an IP address into the "Connect" dialog box of the program. If the person with the address you enter is running CUSM and is accepting messages, you will be linked to that person and can begin your interaction. However, if you desire to have a video-conference with more than two people, each person involved must enter in the IP address of a computer running some software known as a "reflector." This software is also available free of charge over the Internet, and it allows up to eight people to interact in real time. If more than eight people need to hold a conference, you must have a reflector site linked to another reflector site. Using this technique you can theoretically have an unlimited number of sites connected. However, as more sites are added the amount of audio and video data being transmitted will quickly overcome the ability of most networks to keep up and transmission quality breaks down rapidly.

Internet-based video conferencing software is rapidly being developed. Although the version of CUSM that was used for this conference was restricted to black and white video in a fairly small window, at a frame rate of about 15 frames per second, the market place at the time of the presentation of this paper has available a version that overcomes some of these limitations. Some other companies (including Apple computer) already sell competing software that allows color and improved frame rate, but in our opinion sacrifice interactivity and audio quality. The August 1996 magazine of Windows Sources has an advertisement for the Enhanced CU-SeeMe for under a hundred dollars running with a 28.8 modem "all in full color" (p. 150). At any rate, the telephone companies should be nervous, because Internet based videoconferencing is here, is improving rapidly and is free.

Results and student reaction

The conference was not without its problems. The students point out this out clearly in their comments; but the reaction of the students overall was favorable. Over all the comments suggest that the activity was worthwhile. The following examples of comments supports the usefulness of the activity: enlightening, grateful, quite unforgettable, I will refer to it many times in the future, a very worthwhile activity, it was a really innovative approach to meet people whose ideas have been laid out for the world to utilize, thanks for that opportunity; the process was an enriching one, I enjoyed the interview, I found it fascinating and invigorating, very exciting to experience first hand the technology that is emerging.

The comments show that the session made the authors' messages from the book more personal to the students. On several occasions in later class sessions, the discussion and the reflection of the students turned to the dialogue of the "Cu see Me" conference. The internalization and personalization of the discussion were evident in the students' comments. "It aided me in internalizing the philosophy, for the words became people."

Preparation of the students before the session should include instruction about the specificity of the questions particularly about their own situational problems and the search for the answers in this form. Students need to focus on the message of the authors. Questions could have been better planned and agreement if not consensus on the questions planned before hand. Some students still expect that the process will give them the right answers and have difficulty with the role of the reflective practitioner. Some of the students still expect that the process will provide right answers and that "if we just do these things" everything will be perfect. This notion gleaned from the comments became an opportunity to discuss and review the importance of developing as reflective practitioners.

The responses indicate that even when the students did not get the answer they wanted they still could feel that their objections were heard: "We could voice our thoughts, the discussion became important." It was also suggested that "It would have been especially helpful to have had several conferences throughout the semester as the book was in the process of being read, thus allowing for a more detailed and comprehensive questioning regarding the book's chapters." Although it was also suggested that the technology was really important for itself, one student made the observation that:

The format of this allowed me to look beyond the words in the book to the opinions behind them. This helped me to make more practical sense out of the book. The authors' attitudes led me to believe that the basic foundation of the book was the idea that teachers can solve the problems in schools if they only take the initiative to do so.

Many of the students were affected by the messages of the authors differently than were those who wanted specific answers from the session ". . .also showed the readers that the authors were trying to communicate ideas and concepts for teacher leaders, not necessarily specific situation solutions." Another student commented that ". . . although they did not have the perfect solution to every problem posed that, in effect, became the lesson: that there is no one answer for such a multi-faceted business and that lesson is the most important one for us to learn!"

The session had a motivational effect on the students as well as an informational purpose. A student stated that the session, ". . . sparked my interest in learning more about technology and how we can use it effectively in education." Another stated, "I think that this type of activity would be great in the classroom."

Even with some of the glitches and the newness of the technology the students moved very quickly to the purpose of the conference and the technology moved to the background to facilitate the experience. One student commented that, ". . . once I became accustomed to the format I had no trouble concentrating on what the authors had to say."

There are many benefits of this type of conference for the authors. The students as stated earlier made connections that were very important. Being able to put a face to a name made the authors message more important and real for the students. A sample of some of the comments were as follows: I was very impressed with Pellicer and Anderson for taking the time to answer our questions. Both men seemed to have a pragmatic approach, and were in touch with what was really going on in the schools. They both had such a great sense of humor and seemed like genuine people. Both authors fielded the question very well . They are truly concerned with making education better by improving teachers' abilities and influences Talking with Pellicer and Anderson was a treat. They appeared to be genuinely helpful. Being able to meet the authors Pellicer and Anderson via computer network was an experience I'll never forget. By meeting Leonard Pellicer and Lorin Anderson, I found them to be quite knowledgeable and practical, giving credibility to what is said in their book. Their personable and genuine natures made me feel as though I've known them for years.

Preparing for such a conference requires planning and coordination. You must coordinate the session to take place at a time that is convenient for the authors, the students in our case, the technicians, and the booking of the lab facilities. This all takes a great deal of time and coordination. Is it worth it? Yes. The student comments indicate how much they appreciate the effort. The overall result has had significant and lasting effects on both the learning of the students and their relationship with the course instructor.

The students appreciate the efforts that were made and were genuinely grateful for the experience.

Discussion and Conclusions

As can be readily seen from the students' comments, there were some technology problems. For example the slowness of the sound and video and the breaks that were experienced in the transmission. The comments also reflect that the students overall appreciated the experience. It also showed how the same conference affected the students differently. They grought to the conference their own attitudes, beliefs and values, and used their learning experiences to either validate, or modify their positions.

Overall the learning experience was valuable and had many positive results. The student interest and commitment to the content of the course increased. Also, students appreciated the efforts made on their behalf. The material of the book became more relevant as the students connected on a more personal level with the authors. There were longer lasting effects to the discussions as observed in later classes.

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