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DISTANCE LEARNING

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Distance Learning, an official publication of the United States Distance Learning Association (USDLA), is sponsored by the USDLA, by the Fischler School of Education and Human Services at Nova Southeastern University, and by Information Age Publishing. Distance Learning is published six times a year for leaders, practitioners, and decision makers in the fields of distance learning, e-learning, telecommunications, and related areas. It is a professional magazine with information for those who provide instruction to all types of learners, of all ages, using telecommunications technologies of all types. Articles are written by practitioners for practitioners with the intent of providing usable information and ideas for readers. Articles are accepted from authors with interesting and important information about the effective practice of distance teaching and learning.

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Online and Face-to-Face Students' Perceptions of Teacher-Learner Interactions

A Preliminary Examination

Penelope Wong

> For an Internet course, the interaction was pretty good, but I can't give it a 9 or10 [on a Likert scale of 1-10, with "10" being superior] because I don't think that experience can ever be as good as that in a classroom setting.
>
> *—Brian, online student*

Introduction

The above quotation reflects an aspect of classroom pedagogy of concern to all educators: how to maintain high quality teacher-learner interaction, especially in an online classroom environment. For many educators, the student-teacher relationship is at the heart of the learning-teaching process, and while this relationship can manifest itself in a variety of ways, one significant dimension is the *interaction* between a teacher and his or her students. Thus, it would be safe to say that any teacher practice that threatened to undermine a potentially positive teacher-student relationship might be viewed with circumspection. This is the potential situation that teachers of online/distance education courses face. While it can be argued that distance learning can bring enormous benefits to many students, such as access to an education, this form of learning is not without potential pedagogical challenges.

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One of the major concerns about distance learning is its potentially negative impact on the teacher-learner relationship, particularly with respect to the quality and quantity of teacher-learner interaction (Berge 2002; Northrup, 2002; Phipps & Merisotis, 2000; Vansickle, 2003). This fear is a legitimate one (Shneiderman, 1998) because the educational process is fundamentally a relational and interactive one (Ayers, 2001; Noddings, 1992). Therefore, when technology, in the form of computer mediated classes, assumes a significant role in the educational process, what is the impact on the teacher-student relationship, in terms of interaction? Additionally, how does this interaction differ, if at all, from traditional face-to-face interaction? This is precisely the question that was raised when I first started teaching fully online WebCT sections of an introductory education course alongside traditional face-to-face sections of the same course. Because I (i.e., the author/researcher) was the instructor of all four sections of this course in this study, I also had the opportunity to respond to these questions.

One significant dimension of this study is the fact that it involves preservice teachers who are going to be K-12 teachers. Therefore, learning about and experiencing positive interaction with their instructor is not only important in terms of their own experience as learners, but also as a learning experience they will draw on when they become teachers. Education is one of the fields most likely to offer college-level degrees or certificate programs entirely via distance learning, and as the use of this format for offering courses is likely to increase, a study such as this one is significant.

The Study

The purpose of the study is to compare and contrast preservice teacher experiences and perceptions concerning teacher-learner interaction in traditional face-to-face sections and online asynchronous sections of an introductory education course. The research question guiding this preliminary study is: In what ways do face-to-face students and online students experience teacher-learner interaction?

Methods

Participants

The participants in this study were 75 preservice teacher candidates enrolled in a fifth-year teacher education credentialing program in a public, midsized university. They were enrolled in either a fall fully online asynchronous Internet-based section (n = 16), a spring online section (n = 18), a fall traditional face-to-face section (n = 22), or spring face-to-face section (n = 19) of the same course. The same instructor, the researcher, taught all four sections of the course over the duration of one academic year.

Forty-one participants were female and 34 were male. The seemingly unexpectedly high number of male candidates reflects the fact that all the candidates in this study were potential secondary school educators. The students ranged in age from 22 to 59, with the vast majority (n = 53) being in their mid to late twenties; students were distributed evenly in terms of age across all the sections. In other words, younger and older students were distributed evenly in both online and face-to-face sections of the course. In terms of race and ethnicity, the subjects were overwhelmingly European-American (n = 61) with the remainder being Latino/a (n = 14). All of this demographic data pertaining to age, gender, and race/ethnicity were obtained from class records and rosters. It was not solicited via the surveys for fear of compromising confidentiality.

Procedures and the Survey Instrument

Participants were administered a survey that had the following two items:

1. On a scale of "1" to "10" with "1" being poor and "10" being outstanding, rate the teacher-learner interaction in this course.
2. Explain why you gave the rating you did for the teacher-learner [interaction]. Include any other thoughts or ideas you have on the topic.

These two survey items enabled both a qualitative and quantitative interpretation of the results. The surveys were administered at the end of each semester, and students completed them anonymously. In the face-to-face classes, a student administered all the surveys and returned them to the instructor's office. In the online classes, it was possible to track the Internet-based students' responses, so anonymity was ensured by printing out any survey received and blacking out the name before reading it. Online students also had the option of downloading the survey, filling it out, and then mailing it to the instructor. Because of the brevity and ease of answering the questions, the return rate was high. Thirty-one of 34 online students returned completed surveys, for a return rate of 91%. Forty out of 41 face-to-face students returned completed surveys, for a return rate of 98%. Responses were grouped into two categories according to course formats (i.e., online and face-to-face course formats). Both sections of online courses were collapsed into one group, as were both sections of the face-to-face courses, to ensure a larger sample group for each course format. Because the survey did *not* ask the participants to indicate age, race/ethnicity, and gender, the data could not be disaggregated and analyzed along these variables.

The quantitative data, the response to survey item 1, was calculated by simply averaging all the Likert-scale responses of the online participants and face-to-face participants. The qualitative data were analyzed in the following manner: all of the surveys were read holistically two times to get an overall feel for the themes that were present. Then, during a third and subsequent readings, the data were manually coded for themes.

Results

Online students rated their teacher-learner interaction as a group at 9.6 while their face-to-face peers gave a rating of 9.3. It is clear from these quantitative results that there is no statistical difference between the groups' results. There

was, however, a significant experiential difference between the groups as revealed by the qualitative comments. In examining their responses and coding them according to reoccurring ideas and themes, both face-to-face and online students value high-quality and high-quantity interaction with the professor; they just define such interaction differently.

The themes of face-to-face students' responses fall into two main categories with a smaller third category: (1) teacher-learner interaction on an individual level (n = 30), (2) teacher-learner interaction in a group setting (n = 15), and (3) approachability (n = 8). For online students, the three themes that categorize their comments are (1) availability (n = 30), (2) feedback as a function of caring (n = 26), and (3) "good teacher-learner interaction but will never be a 10" (n = 4).

Discussion

The mean ratings of the teacher-learner interaction of 9.6 by online students and 9.3 by face-to-face students yield some intriguing results. First, it seems that the online students are generally more satisfied with their online teacher-learner interaction than their face-to-face peers. Second, this result is in opposition to generally assumed perceptions that face-to-face courses provide higher (and better) levels of interaction than do online courses (Havice, Havice, & Isbell, 2000). While this is not a statistically significant result, it is, nevertheless, for a course instructor engaging in online (as well as face-to-face) instruction, an educationally significant one. It suggests that effective teacher-learner interaction can, in fact, occur in an online environment. The ratings give a snapshot of how the pre-service teachers were generally satisfied with the teacher-learner interaction they experienced. Their comments, however, gave insight into *why* they were generally satisfied. In the following discussion, the comments of the face-to-face students will be discussed first and then those of the online students.

Face-to-Face Students' Perceptions of Teacher-learner Interaction on an Individual Level

It was not surprising that face-to-face students characterized teacher-learner interaction as the feedback they received on assignments, since this was the most common and direct way of communicating with the instructor. As one student noted:

> I think there was quite a bit of teacher-learner interaction. I feel you gave great feedback whether it be in a discussion or written comments on our work. Also all your comments were positive and offered ways of improving. (Sarah, face-to-face student)

As more and more students discussed their views on the feedback, it soon became clear that many of them appreciated the one-to-one attention from the instructor.

> The teacher has always provided students with an ample supply of comments and information on how to improve written assignments. The ability to adjust, rewrite, or add to class assignments allowing students to monitor their improvements helped immensely in [my] development as a future teacher. (Carly, face-to-face student)

Because much of the teacher feedback provided to students was individualized, such as comments on papers and other assignments, students tended to regard the feedback as a springboard to personal improvement in their work and journey toward becoming a teacher.

Face-to-Face Students' Perceptions of Teacher-learner Interaction in a Group Setting

The second most frequently cited form of teacher-learner interaction was that of group dynamics: the way in which the teacher interacted with the class as a group and the ways in which the students interacted with one another. For the students, this dimension of teacher-learner interaction manifested itself as the "creation of a comfortable classroom environment" and touched on a number of topics, such as "communication," "a comfortable class atmosphere," and "discussion of relevant topics" within the context of facilitating class discussions. It was an interesting theme, because it was not only teacher-learner interaction, per se, that was the focus, but also the teacher's ability to create a whole-class environment that was safe and caring for all students. This situation, in turn, enabled students to interact with each other in an atmosphere of safety and trust.

> There were so many "teachable moments" in which we had open class/teacher discussions. In my experience of college—in the teacher credential program—I never saw as much quality discussion and positive interaction. Students are encouraged and challenged on a daily basis. (Jay, face-to-face student)

In the previously discussed theme, individual students' interactions with the instructor were based mainly on feedback from the teacher and were evaluative in nature. In this theme of teacher-learner interaction in a group context, students were focusing on a very different dimension of teacher-

learner interaction: classroom climate. Students were concerned with the instructor's ability to create a safe and trusting classroom environment because of the implications it held for them as a group and their *interactions with each other*. If there were not a climate of trust, an atmosphere of open inquiry would not be possible; through the students' positive interactions with the teacher as a group, they saw the ways that they could interact comfortably with one another. The classroom environment of respect and trust allowed for "an atmosphere of free and open expression," as one student expressed.

> Two ways of communication were always open … [and] the teacher always presented multiple points of view without bias in order to facilitate teacher-learner thinking. The atmosphere was open for free expression on subject content by anyone and also the details of how the class was run. Student input was obviously valued. (Lee, face-to-face student)

Face-to-Face Students' Perceptions of Teacher-learner Interaction as Approachability

A third group of responses centered on approachability. Face-to-face students were less concerned with the instructor's *availability* than with her *approachability*. Because the students could count on seeing the instructor at least twice a week, physical accessibility to the instructor was not an issue. However, availability is not the same as approachability. Face-to-face students seemed concerned with their being able to approach the instructor comfortably and feel safe talking to her. One student commented:

> I often observed her interaction with my classmates. She was always approachable and ready to answer any questions. I don't believe I ever saw her alone. There was always a classmate by her side asking her something before class, after class, in her office, or walking to her office and I hear via email. (Billy, face-to-face student)

Face-to-face students knew the instructor was available if they wanted to see her, and this was certainly important to them; they were more concerned with how safe and comfortable they would feel during the interaction. In a group setting, face-to-face students were concerned with the interpersonal dynamics of human interaction. This was not a surprising finding, given that most individuals do not like unpleasant face-to-face interactions.

Online students shared many of the same perceptions about the qualities of teacher-learner interaction as their face-to-face peers. The three themes that categorized their comments were (1) availability (n = 30), (2) caring in teacher-learner interaction (n = 26), and (3) "good interaction but will never be a 10" (n = 4).

Online Students' Perceptions of Teacher-Learner Interaction as Availability

Not surprisingly, almost all the online students commented on instructor availability as a dimension of teacher-learner interaction. This was not an entirely surprising result because, unlike their face-to-face peers, there was not a regularly set time of day that they could count on communicating with the instructor unless something was arranged beforehand, such as a chat. Very simply put, the instructor has to be "present" in some way for interaction with students to occur. The online students rated the teacher-learner interaction highly because of the perception that the instructor interacted with them on a regular and predictable basis. As one student put it, "you were always easy to get a hold of online and you responded quickly and clearly" (Doug, online student). E-mail was the main way that the instructor interacted with the students. While they could contact the instructor by phone, only one student in both semesters availed herself of this option, and this was due to some extensive computer problems.

Knowing where to reach the instructor and being able to predictably count on a fairly prompt response to queries was only part of the "availability" issue for some online students. Eight students mentioned instructor participation in chats, which were originally set up to increase learner-learner interaction. The instructor participated in the first chat to facilitate discussion, but students wanted the instructor to participate more.

> I only chatted with you one time during the course in a group chat. The interaction was good; I just wish there had been more. Most of the teacher-learner interaction was through webmail and that was done in a timely fashion. (Dave, online student)

While only eight students mentioned chats, it is significant to note that the chats, due to the real-time element, offer a qualitatively different kind of teacher-learner interaction than does e-mail or discussion postings. Even if mediated by a computer, chats more closely approximate a face-to-face conversation with an individual, and thus give the impression of the speaker, in this case the teacher, being not quite so distant. The desire for more instructor participation in the chats might also be an unexpressed wish for the direct human connection

that was missing from the teacher-learner interaction and was available to the face-to-face students.

It is interesting that the online students mentioned "availability" specifically and really confined their comments to this logistical aspect of the teacher-learner interaction (i.e., how and where to reach her), while their face-to-face peers were more concerned with the approachability of the instructor because availability was assumed. This result suggests that if online students can be put at ease about the logistical aspects of availability of their instructor, they might focus more on the approachability of the instructor.

Teacher Feedback as a Dimension of Teacher-Learner Interaction

Like their face-to-face peers, online students also regarded teacher feedback as a critical dimension of teacher-learner interaction. Because teacher feedback on student work was overwhelmingly the most common form of teacher-learner interaction, it was not surprising it was mentioned by 18 of the 34 students. It was through teacher feedback that the online students commented on aspects of teacher-learner interaction similar to that of their face-to-face peers, such as approachability and the creation of a safe classroom environment.

As one might imagine, creating an online learning teacher-learner relationship characterized by safety and trust is not an easy task; all the traditional nonverbal cues that mediate communication, such as body language, are not present in an online environment. Therefore, the instructor doesn't really know how messages, in the form of feedback, are being interpreted. Interestingly, in the absence of any kind of face-to-face or real-time interaction (except through chats), students perceived the quantity and quality of feedback provided on assignments as a measurement of the instructor's "caring" or taking an interest in them.

> I felt it was really helpful when the instructor emailed me and let me have feedback. I felt closer to her and that she really cared about my work. I also felt the instructor was very understanding. We are dealing with technology and things can go wrong from time to time. (Heather, online student)

Other students simply relied on how often they interacted with the instructor as the main measure of the quality of the teacher-learner interaction. Presumably, the more interaction, the more attentive and caring the teacher.

> I emailed you a lot and felt like I got more personal interaction with you than I get with many professors on campus. (Mary, online student)

An interesting subtheme that emerged among the online students' comments was how many of them were actually surprised at the amount of feedback and its quality. One noted, "it was apparent that a lot of time went into grading assignments." Another noted, "I do not get this much feedback in actual courses offered on campus." These last comments suggest the possibility that students might enter online courses with lower expectations concerning teacher-learner interactions than when they enter face-to-face courses.

Online Students' Perceptions of Teacher-Learner Interaction as "Good Interaction for an Online Course"

One of the most significant and interesting themes to emerge from this study was one that was exclusive to the online students. This theme is best characterized as "good interaction for an online course, but it will never be better than in a face-to-face course." Two students' comments capture this sentiment well.

> I feel the interaction was okay. I think it was a little strange for me to have class and not see the teacher unless I came to visit. I don't think this could ever be a category that scores a 10. (Lori, online student)

The above-mentioned student is basically saying that no matter how satisfying the teacher-learner interaction might be, it would never merit a "10" rating because it couldn't possibly be comparable to the kind of learner-student interaction found in face-to-face courses. A second student who rated the teacher-learner interaction as 7.5/10 had this to say:

> For an Internet course, the interaction was pretty good, but I can't give it a 9 or a 10 because I don't think that the experience can be as good as that in a classroom setting. (Brian, online student)

Both comments suggest that some online students have a completely different set of expectations about teacher-learner interaction when taking an online course than when taking a traditional face-to-face course. While this result might be understandable, it is also problematic, because it appears to equate different with "lesser" or "not as good." Interestingly, some students were quite cognizant of this double standard when it came to evaluating teacher-learner interaction. One online student, who rated teacher-

learner interaction as a "9," qualified his response this way.

> I am answering this [item] as a student in an ONLINE course, understanding that there is no face-to-face interaction but interaction nonetheless. (Dave, online student)

Unlike the other students, this student did not rate his interaction with the teacher lower solely because it was in an online class. However, like the other two students, he is expressing the idea that teacher-learner interaction in a face-to-face class is qualitatively different than that of an Internet course.

While these three students felt the teacher-learner interaction was qualitatively different between face-to-face and online courses, they did not explain *how* it was different. And while one can only speculate, it is probably the real-time, direct face-to-face interchange that the students missed, as suggested by the following student's comment: "we [students] lost the element of human expression and personal interaction in taking an online course" (John, online student).

In short, it seems that no matter how satisfied they were with the teacher-learner interaction, the online students always felt the absence of the direct, face-to-face, or "human" connection. While this situation presents a constant challenge for online instructors, it is not insurmountable. The results of this study indicate that online students can experience satisfying and teacher-learner interactions if this issue is carefully attended to by instructors.

Conclusion

Clearly, a positive teacher-learner relationship is critical to any educational situation, but for preservice teachers the situation is especially critical because they will one day be working with K-12 students. Additionally, it is especially important that preservice teachers experience and have some understanding of a positive teacher-learner relationship online because they might one day be teaching online courses themselves.

Perhaps not surprisingly, both online and face-to-face preservice teachers were concerned about the same issues with respect to teacher-learner interaction. Both groups of students wanted a direct human connection to their teacher and were able to define how such an interaction could be achieved (i.e., through availability, quality feedback, and creation of a safe classroom environment). Because the online students did not have a face-to-face human connection, however, they seemed to have preconceived notions that online teacher–learner interactions could never be as "good" as those in a face-to-face class. In other words, they had lower expectations in online courses than in face-to-face courses on this issue. While the results of this study suggest that such an expectation did not seem to adversely impact online pre-service teachers' overall satisfaction and their perception of efficacy of the teacher-learner interaction, it is an issue that needs to be addressed.

Recommendations

The following suggestions, which might be found in a face-to-face course, are offered as possible solutions in mitigating the absence of the missing "human connection" in online courses and thereby improving teacher-learner interaction.

- Hold virtual office hours when students can phone me or talk to me in a chat room, so they feel a more direct human presence
- Conduct more chat sessions with them, so they have more real-time interaction with me.
- Include more autobiographical activities in course work, so students can feel like they know me.
- Possibly post student and instructor photos on the class Website, so students can "put a face to a name."
- Call all the online students at the beginning and/or during the middle of the term and at the end, so they feel they have a "human" connection with me.
- Let students know what the interaction will be like (i.e., how many times I check e-mail, my expectations of them, etc.), so they know what to expect.
- Take advantage of all kinds of Web-based communication besides e-mail (i.e., chat rooms, bulletin boards, etc.), so there are varied kinds of teacher-learner interaction.
- Through interaction with students, particularly when providing feedback, encourage students to be independent, self-regulated learners, so students do not have to feel so dependent on an instructor.
- Hold 2-3 face-to-face meetings if possible; one at the beginning, the middle, and end of the semester, so the students not only get to know the instructor but also other students.
- Consider a video link to the course, so they can see and interact with me in real-time.

Areas for Further Research

The results of this preliminary study demonstrated that students can articulate characteristics of satisfying teacher-learner interactions, and that such experiences can be associated with online instruction. As this issue was examined, however, many other avenues of inquiry were raised. For example, how do

gender, age, and/or race/ethnicity of online participants impact teacher-learner interaction? Do women perceive an effective teacher-learner interaction differently from men? Does the gender of the instructor make a difference? Other areas for further research might include students' comfort levels in using computers and/or relative lack of knowledge or expertise in using computers. Do students who are at ease with using computers perceive teacher-leaner interactions differently than their peers who are intimidated by computers? These are just a few of the questions this very preliminary study raised and, hopefully, some of them will be addressed as more and more courses are delivered in an online format and more research is devoted to this topic.

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"One of the major concerns about distance learning is its potentially negative impact on the teacher-learner relationship, particularly with respect to the quality and quantity of teacher-learner interaction."

—Penelope Wong

A Constructivist Conceptual Framework for a Quality e-Learning Environment

Abed H. Almala

Education is undergoing a theoretical shift from programmed learning and information processing approaches to knowledge building and transfer. Instead of focusing on how information is received, stored, and recalled, learning theorists are now turning their attention and concern to how knowledge is constructed within the mind of the learner and the interactions that the learner has within a cultural and social context. Traditional educational paradigms focused on instructional goals, such as recalling facts, generalizations, defining concepts, and performing procedures, whereas current learning theories, such as constructivism, emphasize reasoning, critical thinking, social negotiation, self-regulation, and mindful reflection. In this article, the author focuses on constructivist learning theory and its applications to a quality e-learning environment.

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Quality e-learning is a Web-based learning environment designed, developed, and delivered based on several dynamic principles, such as institutional support, course development, teaching/learning, course structure, student support, faculty support and evaluation, and assessment (Phipps & Merisotis, 2000). Jonassen, Davidson, Collins, Campbell, and Haag (1995) relate the tenets of constructivist learning theory to technology and explain the role of this current theory in supporting quality e-learning. These scholars describe several technology systems that support individual and social interaction, and cognitive development, essential in helping e-learning students actively explore and construct knowledge. These constructivist-based technological systems include computer-mediated communication, computer-supported collaborative work, case-based learning environments, and computer-based cognitive tools.

These constructivist-based, technological systems and instructional applications are well suited for e-learning because they increase discourse, interactivity, and communication among peers and between students and faculty members. Applying Web features such as synchronous and asynchronous communication tools, hypertext- and hypermedia-based computer programs, like databases and artificial intelligence, e-learning students are able to work together via dialogue to solve and complete real-life problems and projects, settle conflicting ideas, and make meaningful experiences out of educational content and material (Jonassen et al., 1995).

Constructivism is a plausible theory for e-learning. As a viable distance learning option, e-learning requires that students be responsible for their education and collaborate and negotiate meaning with peers and guest experts, to broaden their understanding, to reconstruct individual knowledge, and solve real-life problems, as is described by constructivism. According to constructivism, students are also allowed to choose how they will accomplish their learning activities, as practiced in a quality e-learning environment. This theory encourages instructors to take on the role of a facilitator of student learning rather than a dispenser of informa-

tion, as is practiced in a traditional learning course.

Definition of Constructivism

Constructivism is a philosophy based on the principle that knowledge is created from experience. One key characteristic that distinguishes constructivism from other learning theories, such as behaviorism and cognitivism, is the nature of reality. The constructivist learning paradigm emphasizes that there is no single or objective reality "out there," which the instructor must transmit to the learner. Rather, reality is constructed by the learner during the course of the learning process.

Smith and Ragan (1999) define constructivism as "an educational philosophy within a larger category of philosophies that are described as 'rationalism'" (p. 14). These authors also explain that rationalism is "characterized by the belief that reason is the primary source of information and that reality is constructed rather than discovered" (p. 15). Furthermore, Driscoll (2000) suggests that "constructivist theory rests on the assumption that knowledge is constructed by learners as they attempt to make sense of their experiences" (p. 376).

Constructivists believe that learners are in control of constructing their own meaning in an active way. In a constructivist learning environment, "learners are active organisms seeking meaning" (Driscoll, 2000, p. 376). This meaning is acquired on the basis of experience. Hence, learners have existing beliefs, attitudes, and knowledge that impact their learning. The learning process in the constructivist environment is focused on enabling students to use knowledge in many different settings to make the learning itself as real-life as possible. Oliver (2000) explains how this process unfolds in e-learning:

> In collaborative classrooms, students still collect data, but they also report and share their findings with other classes online. Students can then access a global database of information, discuss observations with peers and professionals, and seek more problem-based information [that] may help them develop a better understanding of real issues. (p. 13)

Tenets of Constructivism

The main tenets of the constructivist learning paradigm suggest that constructivism would be considered a "postmodern" theory that reflects the intellectual and philosophical trends of the late 20th century. Driscoll (2000) summarizes the five major components of constructivism as being (1) a complex and relevant learning environment; (2) social negotiation; (3) multiple perspective and multiple modes of learning; (4) ownership in learning; and (5) self-awareness and knowledge construction. These tenets are useful for e-learning because they provide theoretical support for the learning activities conducted in a quality e-learning course. For instance, in a synchronous or asynchronous e-learning course, students use their prior knowledge and the knowledge of their peers and instructor to enrich the class discourse and negotiation process and, therefore, find the appropriate solutions to the problem at hand. This learning process is founded, acknowledged, and supported by the principles of social constructivism.

Conceptual Framework

The conceptual framework illustrated in Figure 1 articulates a context for this article. This framework, which has been designed and assembled by the author based upon the literature review and personal experience, is formed as a triangle with each vertex aligning with each of the three constructs: instructional design, constructivism, and technology. Each construct has attributes and principles that, when integrated, lead to the design of a technology-supported learning environment such as e-learning. The conceptual framework suggests an interaction between learning theory, instructional design, and Web-based technologies.

This conceptual framework shows that effective instructional design is necessary to ensure quality e-learning. Based on the needs of the learners and the course content and objectives, the instructional designer selects the appropriate instructional strategies and Web feature(s). The instructional designer then defines the development and the use of multimedia and hypermedia, the role of the instructor and learner, and the scope of interactions and communications in the e-learning process.

Instructional strategies included in the instructional design construct of the conceptual framework refer to the plan that is used by an e-learning instructor to accomplish a learning outcome. Supporting case-based reasoning, exploration, situated learning, collaboration and social negotiation, modeling and coaching, goal-based scenarios, multiple perspectives, and technology-based anchored instruction are examples of constructivist instructional strategies that could be implemented in a quality e-learning environment. For instance, applying coaching to Web-based learning could be implemented in either a synchronous or an asynchronous discussion format. A Web-based community of practice is an example of such an implementation.

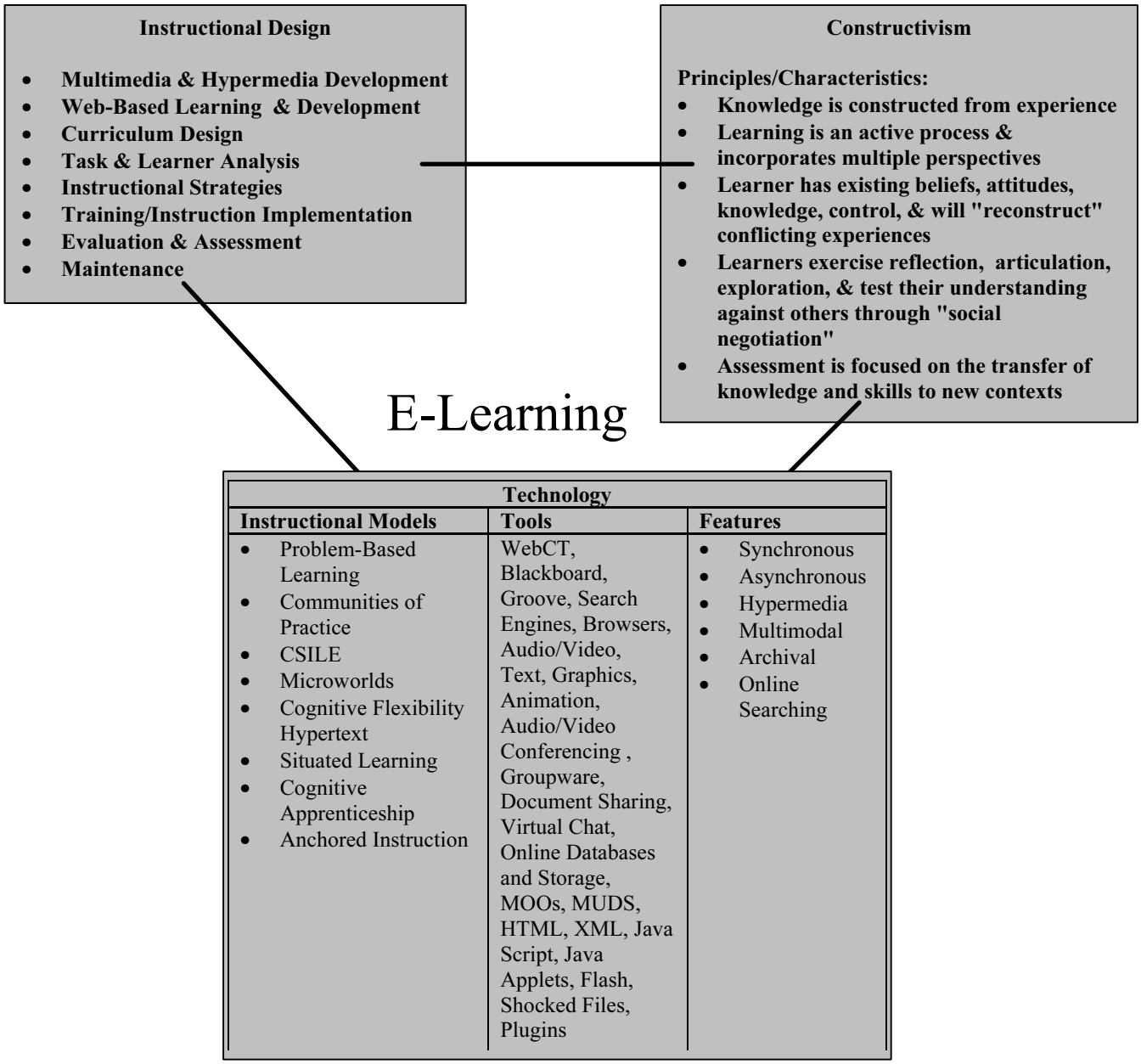

Figure 1. Conceptual framework.

Knowing the e-learner helps in the development of appropriate and effective instructional strategies. Instructional strategies could be customized toward the needs of the e-learner. E-learning faculty, instructional designers, and Web developers need to design appropriate lessons and learning activities and use effective instructional strategies that address the different learning styles of the e-learner to provide quality e-learning experiences for each student.

Based on constructivism, the evaluation and assessment components of the instructional design in the conceptual framework explain that e-learning instructors need to provide guidelines or rubrics for participating in meaningful class discussions that usually occur in synchronous or asynchronous technology tools such as chat rooms or bulletin boards. For instance, e-learning instructors may require their students to make a certain number of postings and paragraphs to earn the appropriate grade. During and at the end of an e-learning course, students should be encouraged to complete electronic evaluation forms to offer their constructive perspectives on different components of their electronic learning environment.

According to the conceptual framework of Figure 1, these formative and summative evaluation processes would provide feedback on the effectiveness of the e-learning environment via various elements, such as the quality of instruction and level of institutional support. The ultimate goal of this continued evaluation method is to make the necessary enhancements to the Web-based synchronous and asynchronous e-learning processes and improve the quality of instruction, as well as channel the necessary support for e-learning students, faculty, and staff.

Based on this conceptual framework, students would be expected to attend and participate effectively in highly interactive class lectures and e-learning apprenticeship activities. A number of forms of e-learning technology, such as chat rooms, two-way audio and video, graphics, and document sharing would allow the e-learning instructor to monitor who is present and who is not. For instance, the synchronous software HorizonLive requires people to log on so the class instructor knows who was there by the log-on record. Asynchronous tools available on other software tools, such as Blackboard or eCollege, can keep track of those students who are present and participating in class.

To increase interaction among students and instructor in an e-learning class, the conceptual framework suggests that an extensive use of technology tools, for instance interactive video and audio, chat and PowerPoint capabilities, need to be used in e-learning classes. Picciano (2001) states that "one [of the] major benefit(s) of interactive video technology is that it enables teachers and students to interact synchronously and comparably to a traditional classroom environment" (p. 70).

E-learning resources need to be available to aid students in self-directed discovery. E-learning students should be given ample time to explore and search for further information on those real-life class activities and problems using appropriate Internet search engines. The conceptual framework also emphasizes that electronic searching provides an effective vehicle for students to elaborate on their current knowledge by affording them the opportunity to seek additional knowledge or clarification of existing knowledge.

E-learning instructors work collaboratively with their students to facilitate communication electronically in class, suggest different approaches and multiple perspectives to solve problems, and apply the subject content to real-life situations. Creating a medium for discourse and inter-connectedness would assist e-learning students to transfer knowledge from long-term memory into working memory through the use of an electronic community of practice. This virtual community fosters and enhances the institutionalization and socialization of the learning process in e-learning classes as depicted in the conceptual framework of Figure 1.

The conceptual framework also explains that every e-learning student is expected to participate effectively in class by reflecting on and articulating his or her own experience in solving real-life problems, and commenting on and answering questions for class discussion. Electronic class discussions would allow students to articulate their learning, and then elaborate based on the comments of others who are participating in a delayed or live electronic discussion forum. Students' input, hints, and answers to class activities would then be shared with the class and assessed accordingly.

This conceptual framework suggests that notes and information exchanged and displayed via the video/audio system, Whiteboard, as well as Chat, in each class session, need to be archived for students to access and review at any time. The Web features, hypermedia and archival create and archive matrices, tables and outlines to support reflection and facilitate interaction, understanding and establish a context for content and instruction, as well as relate the new content to previous knowledge (Driscoll, 1998).

Conclusion

Constructivist learning theory meets the demands of the principles of quality e-learning. If instructional materials and course delivery systems are designed and developed well, this theory would provide the necessary theoretical support to implement quality e-learning courses and programs.

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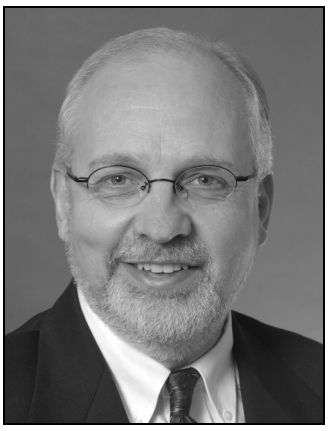
Igniting the SPARK
Supporting the Technology Needs of Online Learners

David P. Hrabe, Russell B. Gazda, and Brian C. Berg

Students taking hybrid or online classes are often unprepared for the kinds of skills that are needed to be successful in this environment. This report provides an overview of one approach, SPARK (Student Preparation and Resource Kit)—an interactive CD-ROM, that faculty can use to assist students in narrowing the gap between needed online learning skills and their current technical knowledge.

The popularity of online learning continues to transform the educational landscape. As more faculty redesign courses to meet the demands of education in the 21st century, some students can be left behind. Students who have not used information technology in previous school experiences and those who are returning to school after a long hiatus from higher education are of particular concern. Even those students who consider themselves to be technically proficient may have developed bad habits over the years that create barriers for them in the online context. Faculty



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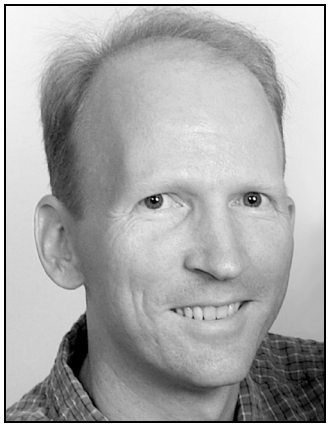

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should recognize this potential "digital divide" and ensure that their students have the tools they need to be successful in online learning experiences.

Online courses suffer from high attrition rates. A possible explanation is that students are not adequately prepared. According to Rowntree (1995), one of the key skills areas that students identify as requiring a "steep learning curve" for online learning includes computing skills (p. 212). The Student Preparation and Resource Kit (SPARK) was created to address gaps in knowledge between needed online learning skills and students' knowledge deficits. SPARK has been piloted with two groups of nursing students: 19 undergraduates and 18 graduate students. Following is a description of SPARK, related definitions, a brief review of usability literature and a report of student evaluations of the CD-ROM.

Description of SPARK

SPARK was created through a partnership of the College of Nursing and MediaKube, LLC, a digital solutions provider and funded by the Arizona Regents University. The CD-ROM was planned to be easy to navigate, entertaining, and conversational. The decision to use this instructional style had two positive implications. First, students who considered themselves computer novices would be more likely to retain information presented in a nonthreatening manner. Second, students who felt they already were familiar with the material would be enticed to explore the content for the entertainment value.

A significant challenge was that the program had to effectively present items of a technical nature in a way that was not daunting for the user. Wherever possible, real-world analogies were used to relate terminology to something with which the student was likely to be familiar. For example, a flatbed scanner is compared to a traditional copy machine with the noted exception that the scanner output is sent to a computer via a digital signal instead of printed onto a piece of paper. Humor was injected throughout to make the content less intimidating and to facilitate the description of complex subjects. Remediation for wrong answers was provided in a helpful and friendly manner. The scripting allows students to repeat a question just to find out how the software reacts to the wrong answers. Learning why an answer is wrong can often be more educational than simply knowing the correct response.

SPARK is an appealing visual experience with plenty of motion and imagery. This delivery style helps direct the immediate attention of the students, while at the same time giving them a mental image to recall at a later date when they need to apply the information they have learned. Where appropriate, animated simulations demonstrate the appropriate steps in a particular task prior to requiring the user to perform the task.

For ease of use, SPARK is configured to launch automatically when the CD is inserted into a PC. The navigation in SPARK is designed to be as unobtrusive as possible, while still providing a substantial degree of control for the student. The replay and skip buttons allow the student to quickly maneuver within a topic, while a click of the map button offers him or her a hierarchical view of the entire content tree. The student can navigate to any other program topic with just three or four clicks.

SPARK Configuration and Navigation

The program begins with an animated series of credits and title screens. The narrator starts by asking, "Is this the first time you've sat down to go through this CD or have we already met?" A click of button A, *"First time for me,"* takes the user through a full introductory sequence, while clicking button B, *"We've already met,"* directs them directly to the SPARK Topic Map. Similar branching occurs throughout much of the introductory section of the program for each main topic. The Topic Map displays the main categories of information followed by a layer of main topics. Below the main level is a set of subtopics for each major category. Table 1 shows the overall layout of SPARK.

Table 1
SPARK Category and Topic Layout

Categories	Main Topics
Hardware	Introduction, CPU, Memory, Storage, Input, Output, Connectivity
Software	Introduction, OS Software, Applications, Viruses
Internet	Networks, LAN vs. WAN, World Wide Web
Skills	Keyboard Shortcuts, File Formats, Using Adobe Reader, Using a Web Browser, Sending Email, Searching, Downloading, File Management
Navigation Help	A detailed explanation of each navigation button and feature is displayed on the Topic Map screen.

Definitions and Usability Literature

The following definitions are provided to clarify the meaning of various terms used in this study:

- Multimedia is the convergence of computers with motion, sound, graphics, and text (Azarmsa, 1996, p. 2).
- Hypertext is the presentation of information as a linked network of nodes which readers are free to navigate in a nonlinear fashion (Keep, McLaughlin, & Parmar, 1993-2000).
- Hypermedia is a special case of hypertext that employs multimedia and describes linked information presentations that contain many forms of media (Azarmsa, 1996) that include sound, video, and so on (Keep et al., 1993-2000).
- Hyperlinks are the connections among units of information (nodes) in hypermedia. This arrangement can be described as a three-dimensional web of information (Dede & Palumbo, 1991, p. 2).
- Computer literacy level refers to the ease with which a learner is able to operate the system controlling the hypermedia program. For example, a person with a low level of computer literacy may need assistance operating the mouse or keyboard commands necessary to navigate within the program.

Hypermedia Usability

The term "hypermedia usability" refers to the ability to use a piece of hypermedia software for the intended audience. It pertains to the ease with which a learner can perform a specific search task for a particular piece of information. "Usability is the combination of fitness for purpose, ease of use, and ease of learning that makes a product effective" (Kushner, 2003). Usability has been applied to the World Wide Web for a number of years; however, it is not specific to the Web. "Since the early 1980s … researchers have been investigating the usability and usefulness of hypermedia across a wide spectrum of domains" (Buckingham-Shum, 1996, p. 1).

Two main factors influence usability: content and design. Critchfield (1998) asserted that a well-designed Website appears more credible regardless of the information provided. The usability of instructional multimedia (hypermedia) is vital for the success and satisfaction of its users because confusion resulting from poorly designed programs can be detrimental to learning performance.

The process of assessing and evaluating online content is subjective and internal (Krug, 2000). Several approaches for expert-based evaluation of usability have been proposed over the past few years. According to Dimitrova, Sharp, and Wilson (2001) there is little evidence in the literature regarding the effectiveness of these approaches. Although expert evaluators are somewhat successful predicting usability problems, they still have difficulties identifying certain types of learner problems such as comprehension. Expert evaluations do not eliminate the need for tests with actual learners. To that end, an evaluation by the end-user was deemed appropriate.

Pilot Study and Evaluation

SPARK was piloted at Arizona State University's College of Nursing in the fall of 2004. The CD-ROM containing SPARK was distributed to 19 members of an accelerated RN to BSN program and 18 members of a graduate level neonatal nursing program. All participants were allowed to keep the CD for their future use. Undergraduate participants received extra credit in their course; graduate students volunteered to complete the evaluation survey. The students were shown how to launch the CD in class and then asked to take it home to review it on their own time. They returned evaluation data via a seven-item survey (described below) the following week.

Evaluation data were collected using a seven-item survey addressing level of confidence after viewing SPARK, its pace, ease of use, ability to keep participants' attention, newness of material, and its usefulness. Participants ranked their responses to each of these questions on a five-point Likert scale ranging from *"Strongly Disagree"* to *"Strongly Agree."* A comment area was provided for each question. Finally, participants were asked what else should be included in SPARK as well as how long it took them to review the CD.

Results of Evaluation

An analysis of the data was used to determine what improvements and modifications should be made to the program. All of the students from the undergraduate class and 51% from the graduate class responded to the survey. Means were calculated for responses to the Likert-type scale items; qualitative data were analyzed for themes.

Comments were analyzed for further insights into participants' experience with SPARK. However, comments tended to mirror each groups' rating of the evaluation items. Of the ten comments provided by graduate students, three students felt that the pace of the program was too slow to meet their needs and two students indicated that only some of the content was new to them. The undergraduate

Table 2
SPARK Survey Items and Comparison of Means between Undergraduate and Graduate Students

Item	Undergraduate Mean	Graduate Mean	Overall Mean
SPARK was easy to use.	4.53	4.89	4.70
The topics covered in SPARK were new to me.	3.11	2.50	2.81
The topics covered in SPARK were useful to me.	4.11	3.77	3.95
How (narration, self-paced units) topics were covered in SPARK kept my attention.	3.84	3.94	3.89
The pace in which topics were covered in SPARK was just right.	3.63	3.94	3.78
I feel more confident about my computer skills after using SPARK.	3.58	3.61	3.59
How much time did it take for you to review the materials of interest to you? (time in minutes).	45.79	29.64	38.94

Note: Undergraduate (n = 19), graduate (n = 18).
Response scale: 1 = *Strongly Disagree*, 5 = *Strongly Agree*.

students provided many more comments (n = 86) and were more positive in their evaluation. The two most frequent comments had to do with ease of use (n = 6) and enhancement of current knowledge (n = 6). Five comments indicated that not all of the content was new to the student. However, it appeared that SPARK was able to either reinforce information that students were unsure about or that it corrected misinformation.

The amount of time spent in SPARK by undergraduate students as compared to graduate students was significantly higher. Several circumstances may account for the difference. The undergraduate students were taking a class from one of the investigators (Hrabe); they also received extra credit for taking the time to complete an online survey. The graduate students completed a paper-and-pencil survey voluntarily (i.e., no extra credit), and the investigators were unknown to this group. The positive evaluations could also reflect participants' gratitude for receiving a free copy of a CD and faculty concern for the students' success in school.

Discussion and Summary

Overall, data suggest a positive experience with SPARK. Ratings indicate that students felt the CD was easy to use, kept their attention, and enhanced their confidence in learning the skills necessary to navigate online courses. While the lowest rankings indicated that much of the content was not new to the participants, having the information readily available helped to refresh and reinforce what they already knew and increased their confidence.

Using SPARK or similar approaches highlights the importance of helping students acquire the technical expertise they need to be successful in hybrid or totally online courses. These endeavors should assist faculty in narrowing the gap between the skills students bring versus those they need.

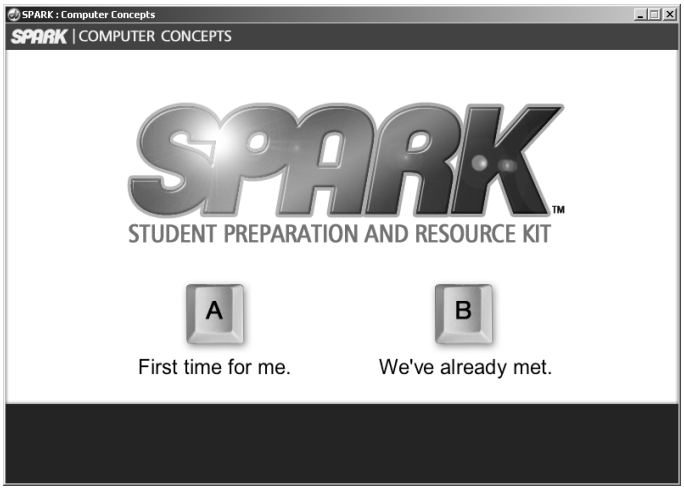

Figure 1. SPARK title screen.

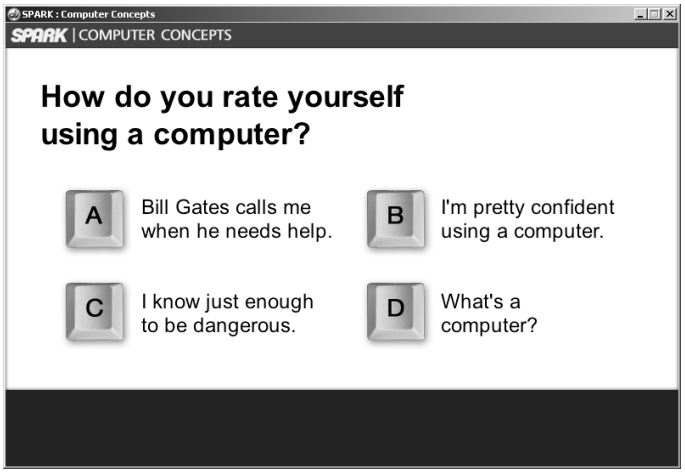

Figure 2. Introductory screen asks user to rate his or her computer skills. Narrated voice-over feedback is individualized according to response.

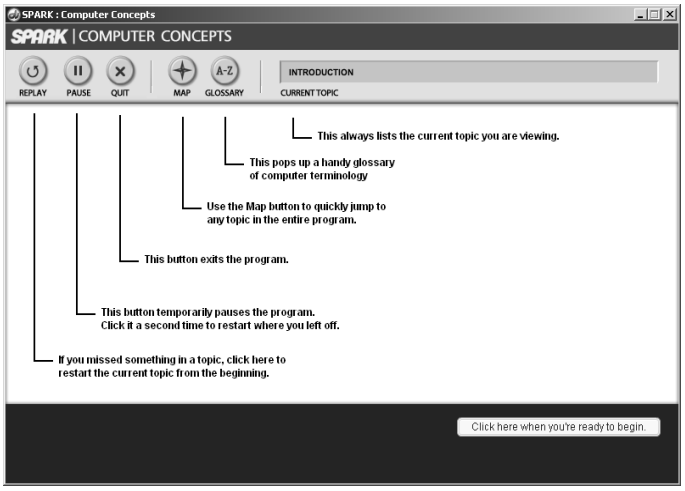

Figure 3. Program Navigation Instructions includes voice-over narration.

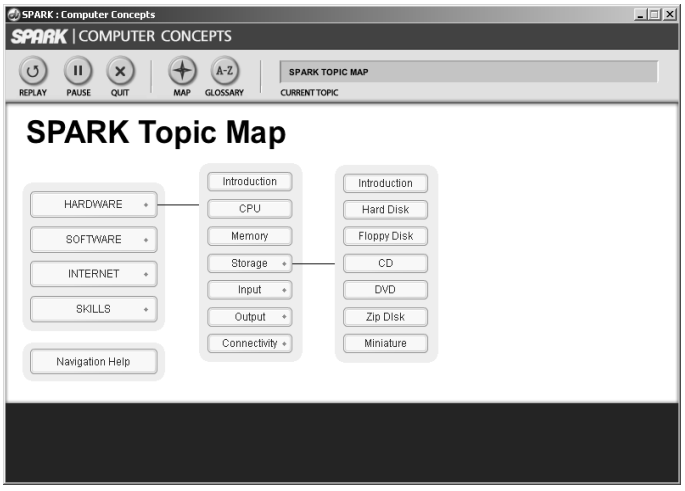

Figure 4. SPARK Topic Map allows random navigation to any topic or subtopic.

Future work will focus on improving assessment of skill and matching results to targeted remediation. (Figures 1 through 4 show selected screens from SPARK, copyright and patent pending 2004.)

Acknowledgment

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Distance Learning and Role Play

A Web-Bard Pedagogy

Kevin Rahimzadeh and MaryAnn Kolloff

As most any high school or college English teacher can verify, it is the rare group of students that approaches the study of Shakespeare with anything other than a mixture of anxiety over the difficulty of making sense of the plays' language and annoyance that, once again, they will be forced to engage in an activity they find both unjustifiably difficult and irrelevant to their lives. The apprehensions students bring to Shakespeare are well understood by most teachers, the best of whom have at their disposal a ready reserve of tips and techniques, on call at a restless moment's notice. More unexpectedly, surveys conducted with pre- and in-service teachers show that the worries Shakespeare provokes are not limited just to students. A good number of those undergoing teacher training and development in our classrooms, at both the undergraduate and graduate level, admit to frustrations similar to those expressed by students.

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Background

The project described here began as an effort both to learn more about student and teacher attitudes toward Shakespeare, and to try to influence those attitudes through a combination of online and in-class instructional techniques. Each semester for the last 3 years, a faculty member from the Department of English has joined with a member from the Department of Curriculum and Instruction at a southern-central regional university to engage in an interdisciplinary project that pairs synchronous online role play in the course management system, Blackboard, with traditional face-to-face meetings. The purpose of the project has been to explore Shakespeare's life and works with preservice and in-service teachers in a course taught in the university's College of Education. While instruction in Shakespeare has been the project's primary rationale, of nearly equal importance was the desire to model online role play as a promising teaching strategy for these same students, one that will move students and teachers alike beyond their initial, often ambivalent or even negative, assumptions about studying Shakespeare.

Prior research has shown the efficacy of role play as an educational

technique, which asks students to enter an imaginary world or to consider a problem or idea in light of a particular, predefined situation (Van Ments, 1989). Research also indicates that online role play is becoming an increasingly popular teaching method, one that is a logical Internet-era extension of traditional role play pedagogy (Bell, 2001a, 2001b; Freeman & Capper, 1999). Role play, whether online or face-to-face, is useful both because it is highly experiential and because, as Bell has written, "it can lead to powerful behavioral and attitudinal outcomes" (2001a, p. 68). Perhaps most important, role play is fun; it is one of the few classroom activities that is enjoyed by nearly all students who engage in it (Bell, 2001a; Van Ments, 1989). As for instruction in Shakespeare, little work seems to have been done regarding electronic instruction in general, let alone online role play in particular (Birmingham, Davies, & Greiffenhagen, 2002).

Project Activity Summary

The Shakespeare role play project contained four separate but interlocking activities, each building on the others over a span of several weeks. These activities were:

- Asynchronous Discussion Questions
- Synchronous Online Interview with Shakespeare
- Asynchronous Online Assessment
- Face-to-Face Assessment with Shakespeare

While the first activity, in which students formulated discussion questions for their interview with Shakespeare, worked well as an asynchronous online activity, it can also be undertaken successfully face-to-face. Likewise, student assessment of the interview would work equally well either electronically or in the classroom. A face-to-face meeting with the instructor role playing Shakespeare was, however, considered to be not just desirable but crucial, for reasons discussed in more detail below.

Project Activity One: Asynchronous Discussion Questions

Much work was done to prepare for the online role play. Students in the class began the project several weeks before the interview was scheduled by researching material to formulate prerole play questions for Shakespeare. These questions provided a useful index to students' initial attitudes toward the study of Shakespeare; they also indicated what students think is most important for them to learn about him and what they think is most important to teach their own students. Student-generated questions for Shakespeare tended to break down into the following broad categories:

- Biographical: (For example, "How many children did you have?" "When did you retire from the stage?" "How old were you when you married?")
- Historical/Cultural: ("Why were women not allowed on stage?" "Did your company ever perform at Court?" "What sort of people attended your plays?")
- Pedagogical: ("At what age would you introduce modern students to your plays?" "What are some ways to teach *Macbeth*?" "Should students be forced to memorize lines?")
- Personal: ("Did you love your wife?" "Were you jealous of Ben Jonson and Christopher Marlowe?" "Did you base characters on people you knew?" "How were you inspired to write *Romeo and Juliet*?")

An analysis of six semesters' worth of these preliminary questions yielded the following breakdowns:

- Biographical: 31 questions asked
- Historical/Cultural: 71 questions asked
- Pedagogical: 29 questions asked
- Personal: 261 questions asked

It was expected that students posed to Shakespeare twice as many personal questions as all others put together. Responses to the other categories of questions are readily available, after all, in reference books and on the Internet. Hence students took advantage of this sort of imaginative activity by asking questions they could not find answers to in traditional resources, questions that for one reason or another sparked their interest in Shakespeare. What ended up eventually frustrating so many students, however, was that personal questions, once they were submitted in the interview, were the very ones that were either ignored or flatly denied an answer. The instructors, naturally enough, did not wish to comment on matters they, or any scholar of the period, can know nothing about. This position was taken out of fairness to Shakespeare himself (asking a man if he loves his wife represents, after all, a considerable breach of good manners), and the role play instructors did not wish to spread literary gossip without being able to identify it as such, which, under the implied rules of the role play, they could not do without destroying the illusion that Shakespeare himself was online. While a good number of students expressed frustration, even anger, over refusals to discuss personal matters—"Why aren't you answering me????" was a question

that appeared many times on the screen—they were understanding when the reasons for those refusals were explained to them later during the face-to-face debriefing session.

It can only be concluded that, whatever their initial anxieties about studying and teaching Shakespeare might have been, the sheer variety and thoughtfulness of the questions posed to Shakespeare in the weeks leading up to the online interview were clear indications of a genuine interest in the man, his works, and his times. The questions also showed a felt need on the part of these teachers to learn how best to approach Shakespeare with their own students, and they confirmed that for most of them, some sort of biographical or personal approach seems to be the best choice insofar as they recognize that this approach has done much to spur their own interest.

Project Activity Two: Synchronous Online Interview with Shakespeare

The online role play was the centerpiece of the entire project, and occurred when the role playing instructor logged onto the online environment as "William Shakespeare," thus concealing his personal identity and allowing students to imaginatively conduct an hour-long interview with Shakespeare himself (Ko & Rossen, 2004). Only after the role play activity, during a face-to-face assessment session with the class, was the identity of "William Shakespeare," a professor from the university's Department of English and theatre, revealed. After a few moments exchanging awkward hellos, he began by asking the class what they most would like to know of Shakespeare. Many of the questions posed during the remainder of the chat session were the same as those offered in advance through the discussion forum. Interviews inevitably, however, took on a life of their own as students grew comfortable with the online activity and, as they stated later, began to buy in imaginatively to the idea that they were speaking to Shakespeare himself. In choosing which questions to respond to, the role playing instructor had, of course, his own hobby-horses, ones that he thought would benefit students in their own classrooms. Questions, for example, on Early Modern culture were given high priority, the answers to which may not be easily accessible in a print or online source. Gender roles in Shakespeare's era and religious beliefs in the time period and how they might have affected the plays, were topics that were almost always taken up. Questions about individual plays were also answered, as the instructor did his best to keep the focus on various ways to teach them. Finally, historical concerns such as the publishing or staging practices of the era were almost always responded to. While the instructor made no effort to speak in blank verse, he strove for a formal tone, paying as much attention as possible to spelling and grammar before hitting the Enter key; because he did so, the tone of student discourse appeared to rise, in that responses seemed to become more carefully formulated as the interview progressed.

Perhaps the most interesting aspect of the interview activity took place in the half hour or so after Shakespeare left the virtual classroom and students continued to post questions, now to one another, and offer reflective comments. While much of this discussion was comprised of complaints over questions that were not responded to or answers students did not much like (many students took umbrage, for instance, at the notion that Shakespeare borrowed the vast majority of his plots), much of it centered on the exercise itself and its usefulness to them as both students and teachers. Students also raised important epistemological issues, asking one another how they are to know whether Shakespeare's comments were accurate, and whether they had been "seduced" into believing in Shakespeare's truthfulness simply because his name kept popping up on their screens. As Van Ments (1989) pointed out, the problem of ensuring accuracy within a fundamentally imaginary scenario is inescapable in role play instruction (p. 28), and it is clear from observations of this phase of the activity that this was the case with the Shakespeare project as well. But in the end what might have been a considerable obstacle to learning—the aura of uncertainty that grew around Shakespeare's statements once he left the chatroom—became a clear advantage once students began to address the problem directly. In fact, what was most rewarding about this post-interview discussion was the way students were observed exercising critical thinking skills as they evaluated the interview, assessed the accuracy and usefulness of Shakespeare's statements, recognized their own presuppositions about Shakespeare, and drew disparate conclusions about the relevance of the exercise (Khan, 1997).

Project Activity Three: Asynchronous Online Assessment

The students' task over the following week was to complete electronic surveys that allowed them to clarify further their thoughts on the significance and usefulness of the role play session. The survey consisted of the following questions:

1. What expectations did you have going into the role play interview?
2. Did anything surprise you about the role play experience?
3. What did you find useful about the experience?
4. Did Shakespeare's statements strike you as accurate? How might you verify the accuracy of his statements?
5. Evaluate your experience with the role play in terms of your prior experience with Shakespeare. Did it add to your knowledge of Shakespeare?
6. Did the role play increase your motivation to want to learn more about Shakespeare and his works?
7. Have you changed your opinion about the appropriate age to introduce students to Shakespeare based on the role play?

This survey has proven to be a highly effective assessment tool. The surveys suggested that students understood the project as attempting the following:

1. Teach facts about Shakespeare and his era.
2. Provide insights into his plays.
3. Model a technique that would work in these teachers' own classrooms.
4. Provide fun.
5. Motivate teachers to want to learn about Shakespeare.
6. Motivate teachers to want to teach Shakespeare, even when his works remain, as they do for the middle school teachers, outside the established curriculum.

Below are examples of typical student comments regarding each of these purposes:

1. Teach facts about Shakespeare and his era. *I learned more about Shakespeare in that chat than I ever learned from studying him in high school or college.*
2. Provide insights into his plays. *I found out lots of information about his plays that I would never have known unless I had done this chat with Will; his plays are things I usually try to avoid because they are too difficult.*
3. Model a technique that would work in these teachers' own classrooms. *Before the role play I thought Shakespeare was confusing, but now I see a way that you can incorporate him in ways other than just reading his plays. Role play can get students involved just like we were, and I would like to do a chat session like we did.*
4. Provide fun. *Role play made Shakespeare a REAL person! I loved the fact that I felt like I was talking to HIM! It was a ton of fun.*
5. Motivate teachers to want to learn about Shakespeare. *After the role play, I wanted to examine his life more closely. I would also like to find out more about his career as an actor and writer.*
6. Motivate teachers to want to teach Shakespeare. *The role play made me see that Shakespeare could be introduced and understood at an earlier age.*

Project Activity Four: Face-to-Face Assessment with Shakespeare

A week or two after the role play session, the role play instructor met with the students in person to evaluate the exercise. Research into role play emphasizes the importance of a debriefing session of some type (Bell, 2001a) and, as Van Ments (1989) has written, debriefing is an indispensable "two-way process," one that "establishes the learning in the student's mind" (p. 49). This meeting provided another opportunity to assess all stages of the exercise, but its most important function was that of offering further points of instruction, which it is recommended be conducted in class if students are to evaluate the online activities with suitable distance and objectivity. What students most seemed to need at this stage in the project was a sustained examination of the benefits, drawbacks, and epistemological difficulties online discourse and role play present. Moreover, they required both a firmer sense of the biographical uncertainty surrounding Shakespeare and, more generally, a more complicated perspective on the limitations surrounding any effort at historical and biographical reconstruction. Relative to other playwrights of his era, quite a bit about William Shakespeare is known. But relative to what modern readers and theatre-goers "would like" to know about him, very little is known indeed. Once it was explained why all their personal questions about Shakespeare lingered on the screen, unanswered, or why one can say with certainty that Shakespeare acted at the Globe in the first decade of the Seventeenth Century, but one cannot explain with any certainty at all as to what might have compelled him to write *Othello*, students were left with a richer sense of historical, biographical, and literary complexity. These teachers seemed to appreciate these points. They frequently stated during this assessment meeting that the textbooks they use or will use in the classroom and the resources they consult to prepare for class leave little room for ambiguity, or for the sort of problematizing of settled assumptions the role play project was designed to effect.

Conclusion

Role playing Shakespeare is doubtless a promising way to teach and

motivate students, and if students are to be taken at their word, then online role play might also prove an equally successful instructional technique in these teachers' own classrooms. Virtual role play appears to allow students to make necessary imaginative leaps to engage a Shakespeare character without the emotion of embarrassment over something *too* realistic—a walking, talking, yellow tights-wearing Shakespeare—hindering those leaps. In online surveys completed after the interview, students commented again and again on the surprising "reality" of the role play activity. In fact, the term "real" was used more frequently than any other as an overall description of the experience. The project's realistic but not *too* realistic nature also explains, perhaps, what made it so much fun. The face-to-face assessment with students indicates that students found the interview with Shakespeare "real" enough to prompt an enjoyable imaginative response to Shakespeare, but not quite so "real" that the students' attention was drawn too unduly to the discrepancy between what they perceived (that a man going by the name of William Shakespeare was conversing with them) and what they knew (that Shakespeare has been dead for 400 years).

In the end, it seems clear that what role play did unusually well was to satisfy the students' longing—a longing they no doubt share with anybody who reads and enjoys imaginative literature—for authentic authorial presence. Asking students to consider what an author might have intended can be an illuminating approach to literature, and is surely a legitimate area of literary inquiry. Still, as in any consideration of authorial motive, the proper watchword for role play instructors seems to be this: be careful, and while being careful, be honest with students as to why such care is necessary. So long as instructors make clear that they are aware of the difficulties involved in invoking authorial presence so dramatically, and share and discuss those difficulties in a direct and probing way, then role play of the sort presented here can be an appropriate and productive teaching tool.

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VIRTUAL ROLE PLAY APPEARS TO ALLOW STUDENTS TO MAKE NECESSARY IMAGINATIVE LEAPS TO ENGAGE A SHAKESPEARE CHARACTER WITHOUT THE EMOTION OF EMBARRASSMENT OVER SOMETHING TOO REALISTIC…

—KEVIN RAHIMZADEH AND MARYANN KOLLOFF

News Blogs in Distance Education Programs

Julie M. Reinhart, Adrian L. Whicker and Tricia Juettemeyer

This article reports on the experience of implementing a departmental news blog in an attempt to improve informal communication between students outside of class. Recommendations for implementing a news blog are provided.

Background

This article discusses the implementation of a news blog that was created to improve informal communication between students in a professional graduate program at a midsized Southeastern university. The program serves a graduate student body of approximately 350. Over 90% of the students attend the program part-time. The average student is 35 years old and is female. More than half are distance-learning students who take classes via the Web or at remote locations through the program. Remote classes are typically held in distance education classrooms at two regional campuses that are 175 and 90 miles away, respectively, from the main campus where the administrative staff and full-time tenure-track faculty work.

The department would like to facilitate greater informal communication among its students. The rationale for wanting to facilitate greater informal interaction is two-fold. First, with more casual communication between the students in the program, there will be a greater sense of community and students are likely to have better experiences within the program. Second, the program would like to facilitate

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more professional networking between students within the program. The more chances the students have for informal communication, the more likely they will be able to create professional relationships that will last their entire professional career.

This program is like many distance education programs, where the "distance" poses a problem for effective informal student-to-student communication outside class-based situations. The university currently provides all students with e-mail accounts, and the department hosts two informational e-mail distribution lists as well as a job announcements list for students within the program. Yet, students report difficulty communicating with other students for several reasons.

First, not all students read e-mail sent to their university e-mail accounts on a regular basis. Since most of the department's students are part-time and distance students, many have several different e-mail accounts, such as accounts for their full-time work and/or their family. Second, not all students subscribe to the departmental e-mail distribution lists. Currently, only 40% of the department's students are subscribed to at least one of the departmental e-mail distribution lists. The department has strongly encouraged students to subscribe to at least one of the e-mail distribution lists, but there is still a low proportion of current students subscribed. Third, the varied methods of course delivery also create difficulties for communication between students at different locations outside of class. Courses are typically conducted on closed-circuit television, offered via the Web, offered as traditional face-to-face classroom-based classes, or some combination of the above. With a wide variety of instructional deliveries, students opt for communication practices that are appropriate for the semester based on the courses they are currently enrolled in. As a result, student news and informal communication may not spread to those at the distant sites and vice versa. Thus, the department has sought an alternate form of communication in an effort to increase the sense of community amongst all members of the program. Fourth, distance plays a role in students' ability to participate in organized professional networking opportunities. For instance, the department has a student association. This organization meets two to three times per semester at the main campus and affords students the opportunity to network and communicate at informal receptions. Most of the students who live outside the area of the main campus do not attend the receptions as a result of the distance.

The department is aware of the difficulties that distance and part-time students face while attempting to network with others in the profession. This is why we sought a method of communication that would foster a sense of community that extends the invisible boundaries of individual classes and encompasses the entire program. As Tu and Corry (2002) state, "communities play an important role in e-learning because effective learning occurs where there is active social communication and interaction." Lock (2002) states that communities in general are loosely structured, interactive, and "fluid in nature." With this in mind, we were looking for something that would allow communication that was relaxed and informal, yet informative in an effort to remove any sense of isolation that some distance students report. Additionally, we were looking to *add* to our current communication channels, we did not want to change communication methods that currently work for some students. We also wanted to open up the current community so that others outside the current student population may learn about the community and possibly become a part of it. We believe a higher level of social presence is needed in the program in order to expand on the current community and foster a deeper sense of community amongst students and to encourage professional networking. As the department facilitates a deeper sense of community among its students, the hope is that, as alumni, they will continue to stay connected with the community and thereby improve program quality.

We decided to create a news blog because they are a blend of e-mail, self-publishing, and Web sites (Oravec, 2002; Umbach, 2004; Lankshear & Knobel, 2003). Blogs are the unedited, published voice of the community they serve. This voice is what we wanted our students to have in order to increase the current sense of community.

We found that one benefit of blogging is the potential to foster communication. Woods (2005) contends, "the rapid advent of blogs has not only added a new communication channel, but has changed the entire communication model for reaching internal and external audiences." According to Ferdig and Trammel (2004), blogs "represent the potential to promote interactivity, provide opportunities for active learning, and improve … relationships." Ferdig and Trammel (2004) state that "the use of blogs provides opportunities for diverse perspectives, both within and outside the classroom."

Much of the literature concerning blogs fostering communication relates to the business and corporate world; however, we found that much of this literature can apply to distance education programs as well. Altom (2002) states that, due to time constraints and interorganizational lack of communication, "the

bulk of the underground knowledge is still untapped." Thanks to blogging, Altom argues, "[they] allow people a chance to share information within an organization." Roush (2005) states that "blogs are used by … workers for debate, free association, and collecting input about projects."

Other benefits of blogs are that they can contribute to a sense of community, highlight individual personalities, are informal, and easy to use. In regards to contributing to creating a sense of community, blogs help students get to know each other on a deeper level and help provide students with networking opportunities and contribute to building learning communities beyond the classroom (Baim, 2004; Oravec, 2003). Block (2001) emphasizes that blogs are unique publications that "are a part of an Internet society that values attitude, community and breezy informality."

A review of the literature on the use of blogs in educational situations found that most of it discusses uses of blogs within a class-based situation as opposed to educational programs using them as a communication tool between students outside class-based instruction. Blogs have been used for journaling purposes (Godwin-Jones, 2003) and to support instruction as an accompaniment to a course Web page (Downes, 2004). They are also used to organize class discussion, class seminars, or to provide summaries of readings (Downes, 2004). Facilitating collaboration is another way in which blogs have been used in education (Poling, 2005).

One of the major benefits of blogs is their ease of use (Carver, 2003; Downes, 2004; Goans & Vogel, 2003). Users have the ability to post 24/7/365 from any location with a Web connection (Goans & Vogel, 2003). The ease of use also increases a bloggers' ability to easily collaborate with other bloggers (Carver, 2003). Other benefits include the ability to archive and search content as well as browse, due to the nature of tagged posts (Goans & Vogel, 2003).

We were also looking for a communication tool that would provide networking opportunities for our students. The literature indicates the importance of networking for success throughout any profession. "Networking is an exchange of information, ideas, leads and suggestions that support professional growth" (Levin, 2003). "A primary function of networks is to facilitate boundary-spanning cooperation, coordination and communication" (Gilchrist, 2004). We felt that creating something boundary-spanning and cooperative would assist students in developing their professional network.

Agre (2003) writes of the many forms of communication one can engage in online. He states, "Underlying all of these disparate activities, though, is the activity of building and maintaining professional relationships. Electronic communication is wasted unless we use it to seek out, cultivate, and nurture relationships with other human beings" (2003). Throughout the literature, the message is clear: networking is a vital element of success in professional endeavors. "The importance of networking in bridging the theory-practice gap cannot be underestimated. Developing links within your field can offer many opportunities to disseminate good practice and share ideas for improvement" (Roberts, 2004).

It is clear that the structure of blogs, the benefits, and the potential uses for the technology make the use of a blog a viable choice for the department, given the communication needs of the community that is widely dispersed and extremely busy. The blog provides an opportunity for students in the program to bridge the practice-theory gap discussed above. However, Slagell (2004) cautions "just as information does not turn into knowledge unless you do something with it or put it to work, networking is not beneficial unless you track and maintain your contacts and follow up." The blog has the potential to provide an avenue for this follow-up. As graduates leave the program, the blog will continue to be a resource for the growing LIS community, which will present opportunities for even more networking between students and professionals.

Description of the Project

In an effort to improve informal communication and information provision, we decided to start a blog for the department. The mission of the blog is to provide a forum for professional networking through the posting of news and information related to the department and the field. We created the news blog in order to generate the informal dissemination of current news and information related to the field and to facilitate communication among those in the community. The news blog is, in a sense, intended to be an interactive online newsletter that is updated as news and information becomes available to the blogger(s). The blogger is the representative voice of the students in the community and they initiate the communication, while others in the community can react and respond to the postings. Information is posted on the days the graduate assistant works in the department's computer lab on the main campus, or whenever relevant news items occur.

The blog has been in operation for two semesters. When the blog was initiated, the graduate assistant

who manages the information on the departmental Website authored the blog as well. The graduate assistant was selected to write entries in the news blog for the following reasons: (1) he was a student, (2) he was connected to the happenings within the department due to his job, and (3) he was present on the main campus almost daily. The intent was to have him post information and news to the blog, allowing him free range of the topics so that the information would come from his perspective, that of a student in the program, and be written in his own voice. The plan was to slowly add additional students as bloggers. These students would be enrolled in classes at the other locations to expand the perspective of the news blog as well as enhance the community aspect.

We conducted a formative evaluation two months after the blog was initiated. The feedback we received provided evidence that there was support for the blog as well as provided suggestions for methods to improve the blog. The suggestions included publicizing the blog more, posting more frequently, adding more bloggers, and the need to facilitate more discussion. Based on the feedback we received, we decided that at the beginning of the following semester we would step up our efforts to include additional students as bloggers. This should solve the problems of infrequent information updates as well as requests to add more bloggers who are able to post.

At the end of the first semester, we were disappointed to see that as of yet we had not received many responses to postings. This could be due to the fact that the blog is meant to disseminate information and news rather than express the blogger's opinions. Another more compelling reason could be that, at the time, individuals need to sign up to get a username in order to post comments on the blog. Many people do not like providing personal information on the Web and might be reluctant to sign up to post comments, even if they would like to. Or, it could simply be that the news blog needs more time to develop. With the addition of new bloggers, we believe we will better represent student news and informational needs for all of our students. Additionally, we felt that with more bloggers, the level of creativity and diversity of postings would increase and, hopefully, the student audience will be more intrigued and more likely to post comments to the blog. The fact that we started with only one blogger located on the main campus proved difficult for providing more information to those at the other locations. Problematically, the blogger at the main campus knew about news around the main campus but did not know about happenings at the other sites. This is the original reason we decided to implement the blog, to improve student-to-student communication between the sites.

The original blogger also felt somewhat constrained by the news format. His experience was, for a blog to be effective, more expression of personal opinion is necessary. Additionally, the blog was implemented in the middle of a heated national election campaign. The blogger feared that any mention of the election might offend half of the audience leading them to believe the blogger, the Department, or the University was endorsing a particular political ideology, so he was reluctant to mention any type of campus activity involving politics.

During the second semester of the blog, we had an entirely new group of bloggers who brought their own perspective on news and information that is relevant to LIS. The original blogger had graduated and the graduate assistant who replaced him as the manager of the departmental Website also replaced him as "lead blogger." We also added a blogger to represent the students who take classes at one site and an officer from the department's student organization, who posted only once. We asked another student from the main campus to join the blogger team. This person agreed but never posted. We also attempted to recruit a blogger to represent the other off-site location's perspective, but those efforts did not produce a willing participant.

Another change that was made during the second semester of the blog was that the blog was set up to allow anonymous responses to postings. We decided to implement this change because we believed more students were likely to post if they were not required to sign up for a blogger account, or add their name to their posting. However, this does introduce the problem of anonymity breeding improper postings. We did not have any incidences of students posting inappropriate comments; however, we did receive a number of anonymous postings. This may not ultimately add to the networking community, as members are unidentifiable.

During the second semester of the blog, we were able to successfully advertise and discuss a new program we implemented for students, practical technology training sessions. After advertising the program, numerous people responded and we discussed the new program via the blog. Because the blog is an open forum, students from other programs in the school were able to read the blog to find out about the program as well. This success is very encouraging for advertising and discussing future programs.

Near the end of the second semester, we did another formative evaluation and found that the most favorable aspect of the blog was that

it provided one location for system-wide information. The results of the second formative evaluation were much more favorable than the first evaluation, which suggests that the blog is becoming a favorable form of communication within the department. The suggestions we received for improving the blog were almost identical to the first formative evaluation, which included promoting the blog more, posting more frequently, adding more bloggers, and the need to ask more leading questions in order to facilitate discussion. Thus, we added another blogger and have made a concerted effort to facilitate discussion.

In summary, the blog is still developing, improving, and evolving. We feel that we still need more postings and more fanfare to promote the blog, but we believe that the blog is slowing gaining ground and that it is a useful communication tool for many of the students in the community.

Recommendations

The following are our recommendations for implementing a news blog for distance education programs.

Offer Multiple Perspectives

It is important to have several voices included in the news blog. This helps create the informal information dissemination and provides more opportunity for interaction between students. Also, only have students post news or comments to the blog, don't allow faculty or staff to post. The news blog should be the voice of the students. Additionally, we recommend that students at different points in the program be employed as bloggers due to the different informational needs that the students have at different stages in their academic career. Finally, we found that it is important to have students who represent the different groups that arise in distance programs. This provides the multiple perspectives that are needed for this communication tool. An added benefit to this is it will allow for more frequent postings. Unique perspectives and informal communication are what makes blogs the success that they are.

Provide Basic Guidelines for Posting

It is important to provide the blogging students with guidelines for what they can and cannot include in their postings. Due to the extremely public nature of blogs, there is a risk that students will post information to the Website that the administration might not find acceptable. This includes posting information that is copyrighted or protected (Downes, 2004); or, posting content that is libelous or slanderous (Downes, 2004). However, by providing students with clear guidelines for what can and cannot be posted on the blog, these risks can be avoided.

Create a Mission for the Blog

To help students stay on track with their postings, there should be a clear purpose for the blog and students who post to the blog should make sure that they stay true to the blog's overriding purpose. Encourage students who post to the blog to write in a conversational tone and to use their own voice.

Promote the Blog

The blog will not be used if people do not know about it. When we first started the news blog, we made an announcement on all departmental e-mail distribution lists and we posted a link to the blog in a prominent location on the departmental homepage. We still received feedback that we did not publicize it enough. It is important to get the word out to all the students that there is a news blog, where they can get information, and participate in a discussion with others in LIS community if they choose. Consider making flyers, posting them in your department and passing them out at off-campus class meetings. Also, consider asking professors to announce the creation of your blog at the beginning of their classes. Looking back on our experience, we believe this would have helped publicize our blog tremendously. For a blog to be successful, Altom believes that "blogging is best rolled out with some fanfare, and with volunteers across several departments," thus allowing more voices to be heard. In a corporate setting, "employee blogging is promoted aggressively" (Roush, 2005). We believe that we did not promote the blog aggressively enough, and will expend extra effort to promote it more in the future.

Keep Going

Any form of new communication takes time for people to adopt and accept. Thus, our recommendation is to keep blogging. It takes time to develop a blogging audience. Busy students might not respond to every post a blogger makes but, given time, we believe we will develop a more active audience. Send reminders about the blog to the communities' other communication outlets in order to generate interest in the blog, and provide links to the blog in prominent locations on the department's Websites as well as within online course management tools. We found the constant reminders to be helpful and others, such as Poling (2005), have found this practice to be helpful with initiating interest in the blog. If you have something meaningful to say and you say it in a positive and

friendly way, people will appreciate it and join in on the conversation.

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Professors' Transition to Online Instruction

Steven Busch and Shirley A. Johnson

A new generation of graduate student is seeking access to educational leadership degrees without using the traditional pathways to the knowledge base and experiences required for the master's degree and administrative certification. Potential students are drawn to the convenience of completing coursework online to receive certification. The online format removes the difficulties of attending a traditional 3-hour class, driving to a campus location, and "giving up" one or more nights a week in an already heavily committed schedule. Most of these learners and potential higher education candidates are full-time teachers with numerous responsibilities for young children. In addition, many of them are required to attend and supervise night activities at school as a function of their employment. And, many of them live a considerable distance from a university campus. It is not surprising that the attainment of a master's degree with administrative certification has been completely out of reach for many teachers and public school employees. Many qualified candidates for higher education training programs find it difficult to incorporate the demands of their lives into the programs' traditional constraints. These constraints may have inadvertently deprived public schools of some potentially outstanding leaders especially if they live in more rural areas.

Web-based and online delivery systems of instruction have opened a new avenue of access to potential students in educational leadership training programs throughout the United States (Dabbagh, 2005). Many schools of higher education have begun to utilize these media in their master's and doctoral programs, often not from personal choice but because of external influence. The Web-based approach, in addition to online instruction, often includes a given number of traditional instructor led face-to-face classroom meetings which assist students in accessing and understanding the expectations of the class. However, these required face-to-face classroom sessions still present the same constraints of the traditional preparation program; namely, the student must adjust his or her schedule in order to be physically present in class even though the number may be reduced. Subsequently, students faced with travel costs, home demands, and other constraints have fueled the demand for totally-online instruction in master's level coursework.

Sam Houston State University began offering a Web-enhanced master's level administrative course online that included a limited num-

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ber of face-to-face classes. This course was used for approximately 8 years and was well accepted by the faculty, if they were not asked to teach the course. Only those professors who were comfortable with the online environment willingly accepted the assignment. No additional effort was made to advance online offerings resulting in full acceptance of the initial course by the faculty. However, the faculty was alert to any further mention of online course work or even the mere suggestion that faculty would be asked to learn how to teach in this environment. Needless to say, there was a quiet, underlying discussion among faculty that did not surface to the dean or the chair.

By 2005, the university's expectations increased for implementing fully developed online degrees. The classes and degree programs were perceived in a number of interesting ways by veteran professors and created perceptual barriers for considering online course development. The notion that master's level students could receive the quality or instructional rigor from an online experience as opposed to the tradition curriculum was viewed as doubtful. There was a strong feeling that the department was acquiescing to the desires of students at the expense of the learning they would receive in a traditional setting. The concern that the professor was being replaced by technology was also verbalized, as well as the strong feeling that the computer online experience could never take the place of meeting in a traditional classroom with an experienced professor of educational administration. One professor referred to it as a "questionable instructional approach," and stated that the inventions of the past, including radio, television, video, and digital programs had not replaced the professor and the computer would not either. Little did that individual understand that the professor would not be replaced, but the medium of instruction certainly might change.

An additional perceptual barrier to online implementation was individual professors' beliefs about the technological skills needed to write and implement a course. Some professors did not have basic technical skills to teach online and were not interested in investing the time and energy to learn. They further were not motivated to change their delivery styles in order to accommodate technology. A strong sense of "this is the way we have always done it and it was successful" prevailed. As a result, the online classes were initially developed and taught by two assistant professors and one clinical professor who were all relatively new to the department.

In total, six online sections were offered in the master's program, representing the entry-level courses for the completion of a degree. The response from the students in the field was overwhelming. All of the classes were filled almost immediately, and the demand for future online classes increased daily. Consequently, the purpose of this article is to describe the transitions experienced by the professors as their thinking evolved about instructional preparation from traditional face-to-face delivery to an online model of instruction. The transitions experienced by the professors address the changes to their instructional approach and to their thinking that were vital in order to design and teach the classes in an online format.

Overview

One professor, participating in the development of a new online course, had taught the entry level master's level course for many years, and the other professor was beginning his first semester of teaching at the university level. The experienced professor had created a set of activities over time that proved to be very successful in promoting student thinking as well as moving students into cognitive dissonance (Atherton, 2003). As a result, she had successfully created an environment in which students learned a tremendous amount while producing authentic assessments that provided evidence of the intended learning. Confident that these strategies would work equally well online, she began loading the activities into the online software. From that process, she discovered a number of differences that altered her view of teaching and learning, that began with arranging the course activities into learning segments and extending through the selection of strategies and assessments throughout the entire course. For example, each collaborative activity requiring students to discuss a concept in depth and then develop specific school applications required the professor to write the questions prior to the discussion, arrange the collaborative sessions in the software, and then include a discussion board session to conduct effective follow-up. The activity generated the intended expectations, but required considerably more time and preparation than such an activity in the traditional classroom. The differences between these two instructional delivery methods led to significant changes in the professors' approach to thinking about instruction. The new professor was not only challenged with developing his first graduate class, but also stunned to discover that his first exposure to graduate classes would be in an online environment.

Course Preparation

The first change in the professors' instructional delivery was in course preparation. Traditionally, a syllabus

was created, supplemental materials prepared, and then printed for distribution to the class; however, preparation for an online class required a completely different thinking and preparation process. In the traditional classroom, most materials, including a syllabus containing timelines, rubrics, grading scales and other supporting documents, were prepared ahead of time and any changes to be made for the coming week were easily created through word processing and copying. Online instruction requires a different preparation mentality that is often not anticipated by teaching professionals. Rather than simple word processing preparation, the professor must not only prepare the information ahead of time, but also must think through where to load the information in the software, how to tie the information with other sections of the software, and where to locate notifications of directions and changes for the students. Adding each course document or assignment required several keystrokes, coupled with careful planning to be sure that each document was tied to the correct week and section of the software. The time associated with such planning was at least 50% more than had previously been required for the traditional face-to-face course. Each of the professors averaged approximately 10 to 15 minutes per activity or document to appropriately load and integrate the course materials. As they worked through the semester, both professors discovered that managing, grading, and recording a single paper for each of the students in their classes required a number of keystrokes and much more time manipulating the software than when using the traditional grade book. Reading and providing feedback for papers required more time due to the program manipulations necessary to access and save the document, use the editing features in Microsoft Word to create feedback, and then return the work to the student. Again, the professors noticed a considerable difference in time expenditures. Both professors acknowledge that the time factor will improve with experience; however, there is definitely a difference when employing software for the primary instructional delivery mechanism. The differences in course preparation necessary to adequately facilitate the courses led to the recognition that communicating with students would be dramatically different and would require different ways of thinking about communication on the part of the professors.

Communication

Communication emerged as a second significant change not anticipated by the professors. In the traditional class, it was easy to prepare communication and to deliver it during class, accompanied by question and answer sessions to ensure that students understood. Almost immediately, both professors realized that the online format required that attention be given to the communication sequences at least one week ahead of delivery by attaching them to the announcement board in the software. It was easy to make errors and confuse the students, because written instructions without verbal explanations can lead to many different interpretations. Considerable thought about what was written and to what it referred was needed to avoid student confusion. Student questions in the traditional class that could be clarified with simple question-and-answer sessions now had to be answered through e-mail, requiring the professor to respond to 15 different people rather than just one or two in a traditional classroom. Careful attention was given to preparing responses in such a way that they could be written one time without creating additional problems for both the students and the professors.

Both professors suddenly realized that all of the verbal explanations for students in the traditional face-to-face class would now have to be written in order to appear in the online environment. Faced with figuring out how to move this critical information online, the professors launched into writing several documents that provided these explanations in narrative and in question/answer formats. Even though frustrated with the time it took to do this work, they began to notice the number of gaps that existed in the explanations in the face-to-face arena that often created confusion. Being forced to write that information down, they observed where the gaps existed and knew better how to provide clarity for both the online and the traditional class. These realizations prompted the creation of weekly announcements that further created connections to the course information, processes, and assignments that students would be responsible for completing. The professors found themselves musing frequently about the ease at which these connections were made for the students in the face-to-face setting and how time-consuming they were in the online environment. They also discovered how difficult it was to implement in the online environment the last minute "instructional brainstorms" that are frequently created just before the face-to-face session.

The first-year professor experienced a somewhat different situation that created similar feelings of discomfort. Expecting to teach in a traditional environment, the sudden change to online was disconcerting. All of the teaching skills that he had taken for granted were now

seemingly obsolete. The requirement of learning and preparing for a new course, while at the same time mastering a new and unfamiliar method of delivery, was overwhelming. The new professor not only had to master the material but also learn an instructional computer program very quickly. The frustration of focusing on the delivery method rather than the material and students created a conflict and served as the basis for his displeasure. Communicating the intricacies of a new class to students in an unfamiliar environment took an enormous amount of his time and effort. As mentioned before, the start-up communication for the class took hours and required volumes of informational e-mails to students. The start-up time for the students was equally intense, and at least 1 to 2 weeks of instruction were sacrificed in allowing students to access the online program and discover the hardware requirements necessary to effectively participate. In the absence of the face-to-face environment, the professor felt an immediate disconnect with the students in the class. The lack of this natural connection with students supported by face-to-face communication made the delivery of material feel foreign and frustrating.

Trust

A third change that emerged in the development of the online class for each professor was how to generate trust within the first week of regular face-to-face classes. The one-dimensional nature of the computer delayed if not crippled the development of trust between the students and professors by as much as 3 or 4 weeks into the semester. In the traditional classroom, the professors created trust through consistent statements of purpose, clear expectations, follow-through with assignments, and genuine concern for the students, coupled with body language signaling support. Without the visual contact, students were unable to determine the professor's body language, interpret facial expressions, or see the reactions of peers in the class. It was interesting to realize the extent to which professors relied on the group dynamics in the classroom to assist in creating a trusting environment. Removing this group face-to-face dynamic and accepting the different group dynamic developed in the online environment forced the professors to search for new avenues to develop trusting relationships with students. This was achieved through carefully and thoughtfully written e-mails, as well as high availability for telephone conversations.

The venue supporting the development of personal dynamics that emerge in the traditional face-to-face class was the interactions achieved in the virtual classroom. Even though limited, this venue allowed interactions among the class and professors, coupled with live, visual presentations that somewhat simulated the traditional classroom. These interactions forced students to interact in a "real time" mode that provided experiences upon which they could determine if the professor could be trusted, and subsequently to begin allowing personal vulnerability and participating in a learning community that was different. The virtual environment, which was intuitive and somewhat natural to the professors, was also daunting because they could not see the students or feel their disquiet. The professors found the virtual classroom very intense and more tiring than the interactive live classroom, but it was only through the virtual classroom that they established some measures of rapport and trust. Even though the virtual classroom in many ways reflected aspects of the traditional classroom to the professors, they both confessed that the virtual became important because it represented the closest connection to the traditional classroom experience. It was in this discovery that both professors realized the level of their personal resistance, their total lack of understanding of preparing an online class, and the personal learning ahead of them. The simple verbalization of this awareness was very cathartic.

Activities Conversion

The professors were faced with converting extremely effective activities in the traditional classroom into effective online activities. Each of these activities required revision, looking first at the intent of the activity and then at the delivery mode. For all activities, with exception of two, modifications were required in order to elicit the same or at least similar responses generated from students in the traditional environment. Once again, professors were faced with a considerable time investment to create the changes. The professors had to examine the intended cognition expected in the traditional environment to determine if the activity would achieve the same thing in the one-dimensional setting. For example, in the traditional classroom, it was easy to determine how students were progressing in an activity through follow-up questions, body language, inquiries, etc.; yet, in the online environment none of these traditional signals were available all at once to the professor. They could only interpret student progress through what was written in the discussion board activities or written in the live setting of instant messaging in the virtual classroom (all Blackboard software options). Now they were faced with carefully reviewing and interpreting what

was written in order to assess comprehension. This process was extremely slow and time consuming. In addition, several wonderful activities used in the traditional classroom were dropped because the document management would be extremely cumbersome and would become more of a distraction than a benefit. Both professors realized somewhere mid-course that new activities were absolutely mandatory, and that the same rigor could be achieved; they just had to approach the course differently.

Mental Models

Creating *cognitive dissonance* for graduate students first entering the program is crucial because of the years of practice that shape their beliefs about education. Students' mental models (Yero, 2002) regarding teacher /administrator interactions shaped by their beliefs requires learning situations that confront those beliefs and stimulate alternative views. Through years of practice, the experienced professor developed a number of activities that enabled students to name these beliefs and begin to reshape their mental models and eventually modify at least some of their practice. Adjusting these activities to the online environment became nearly impossible because the professor did not anticipate what changes had to be made to the activities in order for the students to receive the full impact. Additionally, the professor failed to realize how important it was to see the students' responses and reactions. The lack of these vital responses did not deter their inclusion in the course; however, they did alter how the activities would be used in the future. Because these activities are so terribly important to the process, this is an area that will require considerable thought and revision.

Conclusions

As a result of this experience, both professors noticed and acknowledged the personal resistance to the changes that evolved. It led them to realize how easy it is to become discouraged when you have been so successful with previous strategies and are now faced with changing that process and learning new ways to facilitate those strategies. Our new students demanded online courses because of the convenience and accessibility. The professors could no longer rely on a skill set that was comfortable, but were faced with learning many new ways of teaching.

It is often very difficult for experienced professors to alter the traditional thinking processes required to be successful in online teaching unless the cognitive shifts have been included in the training. Most professors derive great pleasure from watching students learn and making cognitive shifts toward new beliefs and skills. Using the one-dimensional mode of the computer was not as rewarding as the interactive traditional classroom. This was due in part to not knowing or understanding how to create the same level of learning for students in the new environment.

After the beginning of classes and the professors clarified course expectations and explained the weekly format, a surprising evolution began to occur. Even though the professors had never seen the students in the class, they began to experience a dynamic relationship developing among students and professors. The virtual classroom aspect of the online program was crucial in promoting this development. The ability to relate in "real" time through the virtual environment with the students accelerated the feelings of connectedness that were missing in the start-up phase of the course. In addition, the professors' weekly commitment to positive, supportive, and timely feedback to students served as the basis for the development of trust and eventual relationships. The formation of trusting relationships that are crucial to a healthy learning environment had to be meticulously crafted over a period of weeks. Both professors were amazed and delighted that the students were able to master the material in a trusting, albeit new and different, learning environment.

Even though professors are given time to prepare online courses, they must be provided the training and materials to facilitate the change in thinking about instruction in the online environment. The medium is different and requires vastly different instructional strategies. In the midst of the course, both professors discovered that they were feeling a range of emotions regarding changing what they had always done. The introduction of totally online instruction has changed the university experience for both students and professors. It has changed the environment of work, the manner in which instruction is delivered, and the way students learn. The change that university professors face with the online experience is very similar to the changes that high school teachers have been asked to make in public school reform efforts. They believe they have been successful with a method of teaching and changing to more effective strategies is very difficult. Both professors mused during this learning opportunity that it was important to practice the stages of change they both teach to aspiring administrators.

As both professors prepare for future online courses, they have delved deeper into adult learning theory to design ways of transmitting instruction online that facilitates learning in new and more appropriate ways for the online

environment. They suggest the following considerations before online courses are designed and implemented.

- Review adult learning theory and think about how those principles might apply to the online environment
- Review one's personal teaching style and consider what might change when instruction is transferred to the online environment.
- Understand the capabilities of the software that will be used, and find training courses that provide in-depth understanding and application.
- Seek other professionals who have experience using the software to find strategies that work well and effectively engage students.
- Examine all activities planned for implementation to determine if they will easily convert to the online environment.
- Use as many interactive strategies as possible. As in the traditional classroom, the students can assume the lead while the professor is an active participant.
- Utilize the rich resources of the Web to support the syllabus.
- Be open to changing instructional style. The online environment requires different strategies; however, the rigor and impact can be just as effective. The thinking has to be different.
- Review personal time management skills regarding software requirements, instructional strategies, and document grading and handling.
- Ensure that online course loads do not exceed 15 students per class and that the professor has adequate time to effectively deliver online.

The online environment is here to stay in the graduate and undergraduate levels of college instruction. The nature of the technology and the benefits that it brings to the university will create rapid support by administration and lightening speed adaptation by students. As teachers in the K-12 environment are encouraged to do, be open and be a learner.

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CONSIDERATIONS TO BE MADE BEFORE ONLINE COURSES ARE DESIGNED AND IMPLEMENTED.

- REVIEW ADULT LEARNING THEORY
- REVIEW ONE'S PERSONAL TEACHING STYLE
- UNDERSTAND THE CAPABILITIES OF THE SOFTWARE
- SEEK OTHER PROFESSIONALS WHO HAVE EXPERIENCE
- EXAMINE ALL ACTIVITIES
- USE AS MANY INTERACTIVE STRATEGIES AS POSSIBLE
- UTILIZE RICH RESOURCES
- BE OPEN TO CHANGING INSTRUCTIONAL STYLE
- REVIEW PERSONAL TIME MANAGEMENT SKILLS
- ENSURE THAT ONLINE COURSE LOADS ARE "ADEQUATE"

—STEVEN BUSH AND SHIRLEY JOHNSON

Instructional Technology

A Profession vs. a Field of Study

Calvin Finley

Introduction

The term *distance education* is commonly used to describe courses in which nearly all the interaction between the teacher and student takes place electronically. Electronic communication may take the form of audio, video, e-mail, chat, teleconferencing, and, increasingly, the Internet. Distance education courses range from short-term training workshops to undergraduate and graduate programs for college credit. Faculty teaching distance education courses must become proficient in the communications technology employed in their distance education courses. They must be prepared—either on their own or working in teams with other specialists—to design courses that take full advantage of the potential of the medium in which they are operating. Faculty teaching Web-based courses must possess strategies and skills to communicate with their students electronically in the absence of visual and oral cues (American Federation of Teachers, AFT, 2000).

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Instructional Technology: Profession or Field of Study?

Instructional technology and distance education is a functional process whereby instruction and learning take place over space and time that are physically separated from one another. This is in keeping with the 1994 definition of the field, which states that "instructional technology is the theory and practice of design, development, utilization, management and evaluation of processes and resources for learning" (Seels & Richey, 1994, p. 1). Distance education can be described as "teaching-learning relationships where the actors are geographically separated and communication between them is through technical media such as audio and video teleconferences, audio and video recordings, personal computer, correspondence texts, and multimedia systems" (The American Journal of Distance Education, AJDE, 2004).

As described by AJDE (2004), with the increasing numbers of institutions of higher learning becoming involved in distance education, the role of educators who are involved with these institutions is expanding to more than that of just an instructor, but as an instructional systems designer or a technologist, involved in the process of:

- developing effective programs,
- selecting media and using them appropriately,
- designing for interaction,
- researching findings about student achievement and satisfaction,
- researching the changing roles of instructors and learners, and
- developing administrative and policy issues.

Seels and Richey (1994) make reference to a description of instructional technology as the application of technological processes and tools that are used to solve problems of instruction and learning. The definition should not be confined to belonging to a profession, since it is both educational technologist and instructional technologist that encompass the definition of instructional technology and distance education. The educator, as instructional technologist, is first an educator, and subsequently an instructional technologist; the reverse is not necessarily true. Instructional technology involves theories as well as design and delivery of instruction. To limit the definition to that of a profession would exclude individuals who may not be involved with the design of the system, but are involved with utilizing various media in the delivery of instruction, and who have an understanding of the various styles and needs of learners. There are many who would categorize instructional technology as design of the system and educational technology as delivery of the results of the design. In this instance, instructional technologist can be defined as a profession. But, there is more at stake in instructional technology and distance education. In order for distance education to be effective, there must be a concerted effort to understand the role of the learner as well as the instructor. The educational technologist needs to be cognizant of the learning styles as well as the motivation of the distance learner.

Christopher (2004) sums up instructional technology as the pursuit of knowing how people learn and discovering the best method to teach the learner. She describes the components as follows:

- objects—tools, machines, instruments, weapons, appliances—those physical devices of technical performance,
- knowledge—the know-how behind technological innovation,
- activities—what people do, including their skills, methods, procedures and routines,
- a socio-technical system—the manufacture and use of objects involving people and other objects in combination, and
- a process that begins with a need and ends with a solution.

The simplest definition that can be applied to instructional technology is the application of theory to the design and development of instruction. This places instructional technology in the column of a process instead of a profession or field. The educator who is involved with distance education must be trained in the design and development of instruction for electronic delivery. Educators developing distance education courses should approach course design—curriculum planning, class projects, visual aids, library materials, and student interaction—not in terms of replicating the traditional classroom, but in terms of maximizing the potential of the medium that will be employed (AFT, 2000).

Although most researchers in the field of instructional systems design look to Seels and Richey when defining instructional technology as a profession, a closer look at the Seels and Richey definition does describe a "process." An argument can be made that the term *instructional technology* basically means the application of the sciences of technology in the design and delivery of instruction. Inherent in this definition is the understanding that "instructional" encompasses all that is involved in the "process" of instruction: being aware that different learners have different learning styles; understanding the processes of the transfer of knowledge, and how it is different for different learners; being aware of the factors that can have an influence on learning, especially in an online environment; and, having an understanding of the best way to develop the instructional units to best facilitate learning.

In spite of the many efforts to confine instructional technology to the ranks of "professions," it is hard to ignore the fact that the research and literature about instructional technology evolves around a study of the discipline of infusing the theories of learning into the process of delivering instruction with the support of technology. This would place instructional technology in the "field of study" category. The following is a review of a timeline of the definitions of instructional technology, as outlined on a link from the home page of the Instructional Technology Global Network (2004):

- Ely, 1963: AV Communication is that branch of educational theory and practice concerned with the design and use of messages which control the learning process.
- President's Commission on IT, 1970: Systematic way of designing, carrying out, and evaluating the total process of learning and teaching in terms of specific objectives, based on research in human learning and communication and employing a combination of human and non-human resources to bring about more effective instruction.
- AECT, 1972: ET is a complex, integrated process involving people, procedures, ideas, devices and organization for analyzing problems and devising, implementing, evaluating, and managing solutions to those problems involved in all aspects of human learning.
- Davies, 1991: Described the field as a science, art, and craft.

- AECT, 1994: IT is the theory and practice of design, development, utilization, management, and evaluation of processes and resources for learning.

If we base the decision of whether instructional technology is a profession or a field of study solely on the definitions that have been put forward by various "experts," then it appears that it definitely would be classified as a field of study. However, if we consider the individual whose occupation it is to provide instructional technology support, (i.e., the instructional technologist), then it would be a disservice to not classify that individual as belonging to the profession of instructional technology (verbalized as "instructional technologist"). Although it sounds like a play on semantics, it would be prudent to say that instructional technology is a field of study and instructional technologist is a profession.

It is the instructional technologist who has the responsibility to see that emerging technologies are diffused into the instructional development and delivery process. The instructional technologist (the profession) must utilize the theories involved in instructional technology (the field of study) to ensure that instruction is designed and developed in a systematic way, based on behavioral science theory, research, and development (Saettler, as cited in Surry, 1997). In the educational setting, the instructional technologist can increase the efficiency and effectiveness of the educator in meeting the goals of instruction, especially in the area of distance education, where technology plays an ever-increasing role in the design and delivery of instruction.

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The Jury's in
Videoconferencing is Invaluable to the Legal Profession

Jack Skeekey

Whether meeting with an expert to discuss or clarify details or preparing a witness for a difficult day in court, face-to-face is the preferred method of communication in the legal industry. In many cases, court reporters need to be present at the meetings as well to record agreements and legally track events in the case. Travel and time costs to meet in person can absorb profits and cut valuable productivity hours.

Seeing that need, Ron Goldman, founder and CEO of VideoTeleCon, embraced technology to meet lawyers' requirements for in-person communication. Utilizing interactive videoconferencing provided by Polycom, Goldman began the i2i Legal Network, an affiliation of more than 225 court reporting firms that use Polycom solutions to bring lawyers together—virtually—with clients, potential witnesses, and colleagues. The video conferencing solution eliminates the need for travel, saving those most precious of commodities: time and money.

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The solution is having real impact on the legal industry. "Videoconferencing solves many of the most pressing challenges faced by the legal profession," Goldman says. "We've only just begun to scratch the surface in terms of helping this market realize the full potential of the technology for reducing the costs and headaches of travel and boosting productivity."

Soon after the terrorist attacks of September 11, 2001, one New Jersey attorney needed to depose witnesses in England, Germany, and Jordan for a high-profile employment case. Given the prevailing security issues, the client was reluctant to travel, particularly to the Middle East. With a single phone call to an i2i Legal Network member, the attorney was able to schedule 8 days of video conferences with the required court reporter, videographer, and interpreters—within 5 minutes of his office, saving days, even weeks, of time and tens of thousands of dollars.

Virtual Collaboration Now in Session

The i2i Network has deployed more than 250 Polycom ViewStation® videoconferencing systems at court reporting and law firms throughout the United States. Lawyers go to an i2i Network location and via videoconferencing handle depositions, expert consultations, judicial hearings, settlement conferences, co-counsel strategy sessions, partner and board meetings, staff development, and job interviews. For instance:

In New York, an attorney and his co-counsel were preparing for their opening statement in an important case on Long Island regarding a pediatric brain injured patient. With jury selection winding down, they needed to clarify a critical detail involving a CAT scan for the next morning's opening argument, but they did not have time to travel to consult with their expert, a leading pediatric neuroradiologist in Philadelphia. Using Polycom technology and the i2i Network, the attorneys convened in their New York office to consult with the doctor by video-

conference and were able to see the exact detail to which the doctor was referring on the exhibit. Armed with this critical knowledge, the team was able to make their argument the following morning.

In Seattle, an attorney was relying heavily on a geographically distant expert witness for his case. Some of the buildings in the Seattle court system had videoconferencing capabilities installed, but he was scheduled in a room that did not. The attorney considered flying his expert in to testify or paying for a satellite truck to beam the expert into court, which would have cost tens of thousands of dollars each day of testimony. By connecting his firm's Polycom system to the court's IP network, his expert could testify remotely at a fraction of the cost of flying him in or bringing in a satellite truck.

In New York, all of the supreme courts in the state now have videoconferencing. Lawyers use the court system's network and an i2i Network hub to connect to any videoconferencing center in the world, and the civil division of the Supreme Court has a Polycom system available for any attorney's use, saving legal professionals time and money for many different uses.

Nationally, videoconferencing via the i2i Legal Network is aiding attorneys in mass tort suits, such as those involving diet drugs, tobacco, or asbestos litigation. Such cases often involve numerous attorneys spread out nationally or even globally. Co-counsel collaborate via videoconferencing, eliminating complicated scheduling issues and massive travel costs.

With videoconferencing, even interested parties who may not be able to attend every meeting in a case can stay abreast of developments via a videotape recording of the meeting. By using a standard VCR to record the meeting, attorneys can share the tape with experts, clients, or with other lawyers in their office. They can even play back videotapes of previous meetings, witness testimony, or "day in the life" videos for review.

Goldman believes that as more attorneys are exposed to videoconferencing, many are deciding to bring it in-house at their own firms. For attorneys who travel frequently, videoconferencing has become an indispensable and competitive business tool. Videoconferencing also provides an effective way to connect with clients with whom they would usually only be able to catch up with by phone. In today's competitive environment, this provides a valuable client development and retention tool. Law firm customers report that the cost of implementing a videoconferencing solution is quickly recouped through client retention and reduction in travel expenses.

Polycom ViewStation®

Turning Common Conversations Into Consulting Contracts

Ryan Watkins

Consulting takes on many forms in today's organizations. From traditional external consultants who join an organization to assist on specific projects to the modern internal consultants who often sell their services to many organizational units, consulting has become an essential ingredient to the business model of many organizations. As part- or full-time consultants, moonlighters, entrepreneurs, internal advisors, or external partners, consulting offers many professionals a range of unique opportunities to share their ideas and expertise with new organizations. Consulting, in any of these forms, can often help organizations improve their performance and lead to exciting opportunities for everyone who is involved.

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Opening the doors to new opportunities isn't, however, always an easy process or one that can be mastered from reading a few good books. Experience is an essential ingredient to success in sales, whether is it selling learning management software or a conceptual framework for designing effective e-learning courses.

At conferences, on airplanes, in the classroom, and even on vacation, it is often easy to find people who are interested in the concepts and ideas that we have developed over our years of professional service. But turning those interesting conversations into consulting contracts is tricky at best. Based on this premise, I have found it useful to talk with experienced professionals who have nurtured many interesting conversations into very exciting consulting opportunities.

Recently, I took the time to ask a friend and colleague a few questions about his strategies for turning casual discussions into consulting dollars. Beyond his role as a faculty member at Florida State University's prominent program for instructional systems, Roger Kaufman has provided a variety of consulting services for hundreds of organizations that surround the globe. Many of clients are among leading corporate organizations (such as, Motorola, Microsoft, Chase Manhattan Bank, Shell Oil, IBM) while others provide everyday products that we all enjoy (like, M&M Mars or the March of Dimes). His clients also include small companies in South America as well as large government clients in countries from Australia to Germany. Based on these experiences and his many successes a consultant, I asked Roger for some suggestions and tips for turning colleagues into clients.

Ryan: At conferences and other events, experienced professionals are often invited into discussions and asked for advice only to discover that turning those conversations into consulting contracts it is more difficult than expected. What general advice can you offer colleagues who are looking to turn those discussions into consulting dollars?

Roger: Listen to the potential client and identify both what they are asking for and what they should ask for. Be ready to offer something unique and also that which will add measurable value to them.

Ryan: Are there any tactics that you use early in conversations to illustrate for potential clients just how much information or advice you are willing to share with them at no cost and what ideas they will have to pay for in a consulting contract?

Roger: Find some area of your experience and theirs that overlaps. Build a connection based on common ground. It can be over the topic at hand or geography. This helps you "humanize' the interaction.

Ryan: How do you balance between offering potential clients enough information that they will become interested in your consulting services, without providing them with so much advice that they no longer require your services?

Roger: I don't worry about giving them too much information. If a simple conversation can help them be successful, that is fine. It is only if I can actually add value to their organization that I want to work with them.

Ryan: There are many sales seminars and videos on "closing the deal." What techniques do you use when trying to get potential clients to write a contract for services?

Roger: Tell them you would like to work with them and ask them to identify how they see you contributing.

Ryan: What type of potential clients do you find most difficult to move from good conversation toward a consulting contract?

Roger: Ones who already have the solution fixed in their minds. If they are not open to defining and justifying their problems and opportunities before rushing into a solution, I don't want to work with them.

Ryan: Do you recommend that consultants set their initial fees at a high amount and use reductions in those fees as a tool to motivate potential clients into offering a contract?

Roger: First, determine how much you want to work with the client. Then give your usual fee (unless you have a different charge scale for educators, NGOs, etc.) and if you think it is too high, let them know that you are open for discussion if that doesn't fit their budget requirements.

Ryan: What sales or marketing advice would you give new professionals who are interested in offering consulting services to organizations?

Roger: Peter Drucker differentiates between "selling"—when nobody can actually use what you have—and "marketing" where there is an overlap of what you can deliver and what the client can really use. Market. Don't lie, don't cut corners. Charge what you are worth, and never do anything to just get the money. Never.

Ryan: How important are follow-on contracts to consultants in distance learning and related fields?

Roger: Important, but don't string people out with partial help in order to keep up the cash-flow.

Ryan: What characteristics do you find most organizations are looking for in the consultants they hire?

Roger: Most, unfortunately, are looking for someone who strokes them and their pre-existing solutions. At the end of the day, they want success and you have to find if you can contribute to their success while not compromising your ethics.

Ryan: What, if any, resources would you recommend new professionals review when preparing to offer consulting services to organizations in their field?

Roger: I would have them look at the Organizational Elements Model (OEM) and identify how you can help them align and link all of the elements.

Ryan: What additional questions on this topic should I have asked?

Roger: How much am I going to charge you for this interview.

Note: Thanks again to Roger Kaufman for volunteering to share the wisdom of his experience. Any opinion, findings, and conclusion or recommendations expressed in this material are those of the author and do not necessarily reflect the view of the National Science Foundation.

Daylong Learning

Craig Ullman

We're used to the relatively new concept of lifelong learning; I want to suggest an additional way of thinking about education: Daylong Learning.

For good and ill, the way we have organized a student's education came from the business world the child was expected to end up in; hence, the "factory model," a system that gradually fell into place as another instance of Fredrick Taylor's "scientific management" theories.

We all know that time has passed the factory model by. Although frayed around the edges, the system of rigidly defined grades, classes, tracks and so on is still very much with us. So let's take another look at how the working world has evolved and see if there's anything we want to steal to help restructure our students' experience.

There are many kinds of jobs on the market, and perhaps there's not a lot in common between the kid who flips burgers and the middle-aged CEO. But if we look at the lifestyle most students aspire to achieve (those that do aspire to achieve), the white color job has morphed into the technocracy: the millions of people who create, manipulate, and distribute information.

Although the technocracy encompasses a wide variety of workers—everyone from insurance salespersons to computer programmers to CEOs—their jobs still have much in common. Uniformly, these people are connected to their work. Whether in their office or on a desert island, they are connected to work by a cell phone, perhaps a PDA, and of course a laptop. The upside of all this connectivity is greater flexibility and efficiency; the downside is that there's no clear separation between the office and home life (and for the millions of people who telecommute, there's no distinction at all.)

The office is used for meetings and other forms of relationship building, or simply as a quiet space to get some work done. What ties all their disparate activities together isn't time (9 to 5) or space (the office) but the computer: all their files, many of the ways they communicate, and many of the ways they process, produce and store information are on their machines.

So let's go back to what's been fraying around the edges. Students have always had homework and access to libraries, ways of extending class time outside of school. Increasingly, students are accessing other resources outside of class, from face-to-face tutors, to online tutors, to other online resources. So the traditional domination of time and space (the school day and the classroom) has been increasingly breeched. However, schools have only slowly reacted to this change brought on by outside actors—mostly private industry and, with SES, the federal government—rather than seizing the opportunity to reinvent an antiquated structure.

What if the organizing principle of schools wasn't the classroom but the class Web site so our students can become Daylong Learners? The classroom would be used the way an office is now: to exchange ideas with the group, to build rela-

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tionships, and to find a little quiet time to work. The structure of the learning experience would be on the group Web site—the assignments, the due dates, the assessments, and so forth.

Of course, this could all be done with a readily available learning management system, but I'm suggesting an implementation just a little bit different than what's commonly done: instead of the classroom being the focus of attention, the organizing point around which all other activity pivots, give that role to the LMS, with the class time devoted to supporting the more social features of the entire learning experience.

Such a structure would inevitably redefine the role and power of the teacher and the administrator, give students more control of their own learning, and make assessment and data analysis much easier.

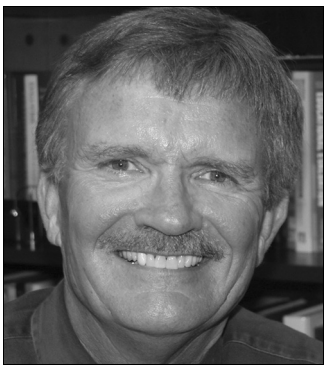
I suggest this is the direction education is going to go regardless; we might as well make the changes intentionally rather than let them be haphazardly imposed by outside forces.

Toilet Paper to Toothbrushes
Planning the Online Course

Michael Simonson

Last year, *Distance Learning* published a column that discussed a fascinating program on the History Channel. The topic of the 30-minute program was coal slurry ponds (Simonson, 2004). The theme of the column was that if it was possible to make an interesting program about a topics as seemingly boring as coal slurry ponds, then distance educators should be able to make their courses interesting, too.

A few days ago, the History Channel had another of its many provocative programs. This one discussed the history of toilet paper! Without going into the details, it was an intriguing and interesting show—and the Sears Roebuck Catalog was the star.



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The original coal slurry ponds column concentrated on the characteristics of high quality distance instruction—the instructional experiences, materials, and events that the distance teacher prepares and that students use, access, study, and learn from during a course.

Planning the online course is a challenge to many, especially those who do not have an instructional design background. Here is an easy and effective approach for course design.

First, a typical college level course should have 45-60 topics. These topics, sometimes called learning experiences, are the building blocks for the course. Topics can then be organized into modules, and modules are finally organized into units. This is called the U-M-T approach to course design (Simonson, 2006).

In other words, a unit of instruction has 3-4 modules, and each module of instruction has 3-4 topics. Topics are important ideas that students examine, or activities that students complete.

Organizing topics within a module can be simplified by following the ARCS Model (Keller, 1987). The ARCS model has been used for decades and is an effective strategy for organizing portions of a course.

The first topic in the ARCS model is used to gain the *attention* of the learner and focus it on the critical issues to be studied. The second topic stresses *relevance*. Next, there is an activity to help build *confidence* in the student. Finally, there is *satisfaction* building. This is repeated for each module.

Keller's ARCS model, combined with the U-M-T approach to online course design, may not yield as intriguing a story as the history of toilet paper, but applying these approaches gives the distance teacher a head start at designing an effective online course.

And finally, the History Channel is advertising another "don't miss" program: the history of the toothbrush. Coal slurry ponds, toilet paper, and now toothbrushes. Wow!

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