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DISTANCE LEARNING

...A Magazine for Leaders

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DISTANCE LEARNING

PURPOSE
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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IN UPCOMING ISSUES

Three Levels of Motivation in Instruction

Building Interpersonal Relations with Learners

Katy Xinquan Cao

As teachers and instructors, what role do you think you should play in students' lives? Take a minute to think about it: did you have a professor who helped shape your life (in a positive way)? On the other hand, was there a professor to whom you never went back again? The teacher's goal should not simply be to teach the items in the curriculum, but also to be an example as a person and a

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respectable scholar for students. What kind of scholar you are and what you offer in your instruction are important motivators for students, and will impact their lives tremendously. The ties between teachers and students are loaded with emotions and responsibilities.

This article proposes a model that identifies three levels of motivation (3LOM) in instruction. It suggests that motivation can be addressed at three different levels: inclusion, entertainment, and edification. It looks at motivation from the perspective of social interaction. The focus of the model is to describe the teacher's role as an active party in the process of teacher-student interaction. The assumption is that ideal instructional interaction in class, as with any other types of social interaction, should attend to, and indeed give priority to, the students' certain needs and desires. Otherwise, it will turn into a bad experience that the participant does not want to repeat.

The following are the values underlying this model:

- The purpose of instruction should serve the positive needs of society and promote the development of society.

- The instructor should first of all have sufficient expertise and good qualities or standards that are acclaimed by the majority of society.
- The process of instruction and learning is one type of social interaction that should be carried out accordingly.
- The instructor should seek to understand the needs of each student.
- The instructor's first priority is to teach the things listed in the curriculum.
- If he or she can, the instructor should explore the learner's potential and provide guidance for the learners to achieve their potential.
- Learners have free agency. The instructor is not to force changes on them but cater to their individual potential and ambition.

An important stimulus of the model is Maslow's hierarchy of needs. The way that the three levels are organized as a hierarchy follows exactly Maslow's hierarchy. The highest level, edification, is the educational equivalent of Maslow's ideas of self-actualization and self-transcendence. Other references to

literature in instructional design principles, motivation, and good practice in classroom have also contributed to the development of the three levels in this model of motivation.

MASLOW'S HIERARCHY OF NEEDS

The 3LOM model developed its framework from Maslow's (1943) hierarchy of needs, which stated that "human beings are motivated by unsatisfied needs," and "certain lower needs need to be satisfied before higher needs can be satisfied."

In the hierarchy, Maslow included general types of needs (physiological, safety, love, esteem, and self-actualization). He argued that these "needs must be satisfied before a person can act unselfishly." He called these needs "deficiency needs. As long as these cravings are satisfied, human beings will move toward growth, toward self-actualization. Satisfying needs is healthy; blocking gratification makes us sick or evil" (Maslow, 1943).

"Needs are prepotent. A prepotent need is one that has the greatest influence over our actions. Everyone has a prepotent need, but that need will vary among individuals" (Maslow, 1943). An actress may have a need to feel that her change of image is liked by the audience. A prisoner will need to satisfy his cravings for freedom and will not worry about his appearance. In a school setting, a professor may need students' respect and attendance in class. A student may feel that he needs to keep up with the rest of the class. Maslow's theory provided an effective tool that helps us understand ourselves as human beings.

Based on Maslow's theory, we should view instructional interaction as a social process in which the learners are motivated by certain needs to be active.

BASIC PRINCIPLES OF INSTRUCTIONAL DESIGN

The three basic principles in instructional desgn are that: instruction should be appealing, effective, and efficient (Smith & Ragan, 1999). All the three can be considered as constructs of motivation. Lacking any one of the three is likely to result in discouraging students' interest in the instruction. The 3LOM model aims to help achieve these goals in instruction.

RELATED LITERATURE ON CLASSROOM MOTIVATION

Literature on methods of motivation and classroom practices were referenced to make the 3LOM model more applicable. Two of the writings are especially enlightening.

Bonk and Dennen's (in press) article "We'll Leave the Light On For You: Keeping Learner Motivated in Online Courses" provided very detailed tips that are implementation-oriented. Bonk and Dennen summarized 10 points that are motivating in the online classroom: tone/climate, feedback, engagement, meaningfulness, choice, variety, curiosity, tension, peer interaction, and goal driven.

The 3LOM model is in agreement with the above article. All the 10 points map directly onto one or more of the three dimensions of the 3LOM model. For example, tone/climate and peer interaction are vital. Engagement, variety, and curiosity are all valuable methods that will build up the dimension of entertainment. Feedback and goal driven are methods for edification.

Chickering and Gamson (1987), in their Seven Principles for Good Practice in Undergraduate Educa-

tion, listed the following ideas: (1) Encourage contacts between students and faculty; (2) Develop reciprocity and cooperation among students; (3) Use active learning techniques; (4) Give prompt feedback; (5) Emphasize time on task; (6) Communicate high expectations; (7) Respect diverse talents and ways of learning. These seven principles also can find their counterpart in the 3LOM model. The first principle, "encourage contacts between students and faculty," refers to inclusion, and the second one, "develops reciprocity and cooperation among students," refers to inclusion. The third one, "using active learning techniques," is more about entertainment. The fourth, sixth, and seventh principle all fall into the dimension of edification.

Although the 3LOM model has many things in common with the other two articles, there are some principle differences too. First of all, as stated at the beginning, the 3LOM model looks at the issue of motivation from a social psychological point of view. It emphasizes that motivation can be gained at three different dimensions instead of many isolated points. Second, the 3LOM model implies that the teacher is an active party who is aware of the students' needs in the teacher-student interaction process. Teachers take the initiative to satisfy those needs and make the teacher-student interaction alive.

LEVEL OF INCLUSION

Inclusion is a prerequisite for social interactions. We need to be included in a group to carry out communications or interactions. One implication of inclusion is unconditional acceptance. Student should feel that they are welcome simply because they are students in the class. The teacher should be careful not to be judgmental with students when they first meet.

Unconditional acceptance is the door opener for the newcomer. To include people, we give them signals by responding to their presence and paying them attention, respect, or care. This is to satisfy the learner's social or emotional needs. As Dale wrote in *Audio-Visual Methods in Teaching* (1946), "Good teaching involves the feelings as well as the intellect." In class, if students feel ignored or rejected in their attempt to start a conversation, or come across some unfriendly comments, they would not find the atmosphere comfortable. An instructor should include all students in the learning process.

Inclusion can be achieved through two types of relations built in the instruction/learning process: first, a positive personal relationship between the instructor and individual learner; second, esprit de corps in the classroom. The earlier these relations are formed, the better they will help the instruction and learning process. Dale expressed similar views years ago. He used the word "mood of mutuality." As he said, "Learning blossoms in a mood of mutuality. Such a mood must permeate the classroom, the shop, the home, or wherever else teaching takes place, if it is to be good teaching" (1946).

Building a Positive Personal Relationship Between the Teacher and the Learner

A positive personal relationship between the instructor and the learner should be a two-way relationship that includes two facets: the instructor genuinely cares about the learner and the learner trusts and looks to the instructor for guidance if he or she requires any. For the instructor to form a personal positive relationship with the individual learner, the instructor should prepare to build rapport with the individual learner from the very beginning. The instructor should attempt to promptly gain the learner's trust, in class as well as after class. It is important that this friendly relationship be built in the first few contacts because the first impression is a very powerful factor that shapes our perceptions of other people. This does not mean that the teacher has totally lost the chance if he or she did not promptly become friends with the students, but an early friendship is preferable. The following methods can be used:

1. Know the students personally. This includes remembering students' names and addressing students by name, and chatting with the students to find out some relevant background information, such as their interests and career goals.
2. Show appreciation of students' abilities. Teachers should know clearly how the students perform in the class. It is important for teachers to spot one or two things that a student is good at and show sincere and generous appreciation. Teachers should also be understanding. If a student is not doing well, the teacher should find out the reasons and help with solutions.
3. Be available when students need help. Besides the teaching-learning interactions in class, teachers should also maintain good communication with students after class, such as keeping regular office hours or replying to e-mails carefully and promptly. The point here is that students should get the idea that the teacher is approachable and ready to help when needed.

Maintaining Esprit de Corps in the Classroom

For a student, unpleasant feelings with one or two peer students in the class are likely to ruin the whole learning experience. Teachers should be careful not to encourage any friction between students, consciously or unconsciously. Often, top students receive much of the teacher's favor, while problematic students obtain much of the teacher's attention—either in a positive or negative way. It is easy for students to feel that they have different status in the class. Negative feelings such as jealousy or contempt among students are not likely to help with students' growth, and should be prevented.

1. Teachers should treat every student equally.
2. Students should be encouraged to respect and help each other before they compete. Students should also be encouraged to remember each other's names.
3. Learning groups can be formed and shuffled regularly.
4. Fair group work norms should be formed in the class.

LEVEL OF ENTERTAINMENT

The idea of entertainment means making the learning process fun and relaxing instead of boring and frustrating. The point is to remove the fatigue or stress resulting from the intense cognitive process in the learners' brain and help the learners to concentrate on the learning.

There are three aspects to consider when designing entertaining instruction: choosing entertaining learning materials, using entertaining delivery methods, and using the instructor's personally-developed entertaining teaching style. These

three methods are complementary to each other.

CHOOSING ENTERTAINING LEARNING MATERIALS

If the instructor has the authority to decide what materials to use, he or she can choose learning materials that are more appealing to the learners, such as using books written in a language that is more colloquial rather than deep and complicated professional prose.

USING ENTERTAINING DELIVERY METHODS

Most of the time, instructors do not have much freedom to choose easy learning materials. If this is the case, the instructors can work on making the delivery methods entertaining. Most popular examples of entertaining delivery methods are the use of multimedia such as video, audio, graphics, games, and many other creative ways to make the instruction fun. For example, many professors bring refreshment to their classroom or arrange for students to bring food once in a while. Others start the class by playing a little piece of lively music. These different strategies all serve one purpose, which is building a relaxing or refreshing atmosphere in the classroom.

TEACHER-DEVELOPED ENTERTAINING PERSONAL TEACHING STYLE

A teacher's teaching style is much related to his or her personality. Some people have the talent to be humorous, witty, or funny when they talk. Others might be born with an easygoing and happy temperament that lightens up things. Telling jokes is a method that can help a teacher to be entertaining. However, the jokes should be relevant to the instruction, clean in both

the language and ideas. If used wisely, the jokes can greatly help the learners understand and remember the learning material.

It is hard to sum up all the methods of entertaining instruction in class. Different people have different strategies. Depending on the specific circumstances, the instructor should adopt the appropriate method to cheer up the learners.

LEVEL OF EDIFICATION

Literally, edification means intellectual, moral, or spiritual improvement. In the instructional process, a learner experiences a revolutionary upgrade in his or understanding in one or all of the above domains, which results in positive changes in his or her way of thinking and/or behavior.

Intellectual edification deals with our understanding of the objective world. In the process, we move closer and closer toward the truth. Edification in the spiritual and moral domains deals more with our life views. It helps to answer questions such as "What is the meaning of life?" and "What is a good way to lead this life?"

The strategy recommended for edification is self-actualization, and self-transcendence for spiritual and moral development. Self-actualization means to "become more and more what one is, to become everything that one is capable of becoming." (Maslow, 1943) Self-actualization was used by Maslow in his hierarchy of needs. Edification in instruction should be aligned with each student's self-actualization to be most motivating. However, helping learners achieve self-actualization is not exactly what edification means. The instructor should first make sure that the learners' self-actualization will benefit the world; otherwise it is not edification.

EDIFICATION IN THE INTELLECTUAL DOMAIN

Intellectual edification means the increase of knowledge about the objective world, which includes us as human beings, nature, and the relations and rules of the objects in the universe. At a basic level, learners should be exposed as much as possible to general knowledge and skills, which allows them to function well and handle the problems of daily life. At a second level, they should acquire some awareness of their own strengths and weaknesses. Based on this, they will be able to focus on their strengths and fully develop their potential. The result of the basic level is that students should have the confidence to say that "I am as good as anybody else." Besides, some students should be able to say "I am really an expert in this area." As a matter of fact, due to either biological or social factors, it is not reasonable to expect every student to reach this level.

Acquiring General Knowledge and Skills

General knowledge and skills have received much attention in education. One example is K-12 education: what the students are expected to learn through the K-12 years is mostly focused on general knowledge and skills. In almost every country and educational system exists a curriculum that defines the goals and objectives of K-12 education. The curriculum specifies what kind of skills and knowledge every student is expected to obtain in his or her school years. Those skills and knowledge focus on different subjects: language, mathematics, arts, history, physics, chemistry, geography, and so on. To better understand all the different general knowledge and skills, let's borrow Gardner's (1993) theory of multiple intelligences, which notes that:

all human beings represent the culmination of an evolutionary process that has yielded at least eight relatively discrete information-processing mechanisms. All of us possess linguistic intelligence; logical-mathematical intelligence, musical intelligence; spatial intelligence; bodily-kinesthetic intelligence; naturalist intelligence; interpersonal intelligence; and intrapersonal intelligence.

Based on multiple intelligences theory, some general knowledge and skills students should have are: the capacity to observe and gather useful information, the capacity to effectively communicate with other people orally and in written form, the capacity to maintain good relationships with people, the capacity to understand the emotional world of oneself and other people, the capacity to make sound judgments on things that have happened and react properly, the capacity to understand nature and the universe, and the capacity to appreciate different types of arts.

Help Studentss to Become Experts in an Area (or Areas) of Interest

Teachers should pay enough attention to students so as to detect students' strengths or potential. After communicating with the students about their interests or ambition, teachers should provide guidance in determining an area of interest and further development. In other words, teachers should help students be aware of their strengths and potential. Students should be encouraged to become expert in one or more areas of interest or whatever their potential is.

Because of limited opportunities of contact or large number of students to work with, it might not be easy for a teacher to know students well enough to determine their

potential. Some other ways can be used to help the teachers. First of all, teachers should get involved with students as much as possible; second, students should be encouraged to exhibit their strengths whenever there is a chance; third, teachers should work closely with students' parents or families to learn more about the students.

EDIFICATION IN MORAL AND SPIRITUAL DOMAINS

There are two levels in moral and spiritual edification: self-actualization and self-transcendence.

Self-Actualization

As Maslow (1943) noted, "the need for self-actualization is the desire to become more and more what one is, to become everything that one is capable of becoming." One key question here is "How can one know what one is capable of becoming?" There are two ways an individual finds out about his or her potential: personal awareness and external influence. Personal awareness is mostly developed as individuals accumulate life experiences. In the process, they gradually come to realize their potential and become determined to fully develop it. External influence comes from an individual's community or society, such as a certain way of living or some social standards in the culture. As the individual grows up in the culture, he or she is expected to achieve it as an ideal.

Those who came to know their potential through personal awareness are most likely "people who have everything can maximize their potential. They can seek knowledge, peace, esthetic experiences, self-fulfillment, oneness with God, etc." (Maslow, 1943). However, the appreciation and support from their family, friends, or mentors might not be indispensable but important.

An example of living up to the standards of the society to carry out self-actualization is found in Confucianism, a traditional Chinese philosophy, which is also understood as a scholar's philosophy in China.

In the past, all scholars (men only) in China were taught to go through the same life ladder. First, a man should practice self-cultivation, which means that he should seek education and cultivate good qualities. Second, a man should raise a good family and maintain a harmonious household. This implies that men should be good husbands and fathers. Third, a man should use his wisdom and skills to serve and govern his country, like obtaining a prominent position in the emperor's court. Fourth, a man should aim to make world peace.

Nowadays, people have much freedom to choose the things they like. Edification can happen in many different ways. Cultural background such as lifestyle and values is an important factor that influences self-actualization.

Self-Transcendence

Self-transcendence means to "connect to something beyond the ego or to help others find self-fulfillment and realize their potential" (Maslow, 1943).

Examples of this are mostly found in different religions. In Christianity, Jesus Christ is regarded as the savior of the world. He sacrificed his own life for the world. A recent example would be Mother Teresa, who lived and worked to promote the happiness of a people in a strange land. In some Western churches, people are encouraged to become like God and Jesus Christ. In Buddhism, it is believed that everybody can become a Buddha, who is regarded as saint and almighty because he is completely unconnected with, therefore unrestrained by, the secular world.

The above are some areas which instructors might look to edify his or her learners morally or spiritually. A key idea with the results of edification should be changes in a learner's way of thinking, behavior, or both. Otherwise, edification does not happen on the learners' side.

Methods to Make Edifying Instruction

- Choose meaningful, relevant, and applicable learning content. Learning materials should be related to learners' careers, goals, or something that is part of the students' themselves or their lives.
- Encourage self-reflection. Encourage students to check their own progress. Students should learn to learn from their own experiences and be able to adjust their goals.
- Provide intervention when necessary. Teachers should be aware

of students' development and be prepared to give further guidance when needed.

Inclusion, entertainment, and edification are the three things a teacher can look at to make instruction motivating. They are hierarchical in the way that they motivate the learners at different levels based on the needs and desires as expected in the psychological process of human interaction. Among the three, the levels of inclusion and entertainment are not the final goal of instruction. Rather, they help to achieve the third level of edification. Without reaching the level of edification, inclusion and entertainment have little significance in an instruction-learning interaction. Also, there are no absolute rules as to when and how to implement them in the instruction. But it is critical that teachers should use them flexibly at the appropriate time.

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New Technologies for the Education Market Smash Barriers in Distance Learning

Russ Colbert

A hush fell over a group of high-school students at Lakeside High School. The Ashtabula City School District classroom waited to be connected via videoconference to Japan and one of the last survivors of the Hiroshima atomic bombing. This live, two-way interaction between students and a survivor of one of the most profound events in U.S. history impacted students in a way that no textbook or lecture ever could.

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Because of advances in, and availability of, videoconferencing technology, similar interactions are becoming more commonplace in K-12 and university classrooms. Polycom, Inc., the world's leading provider of unified collaborative communications, has long served the distance learning market with its ClassStation™ solutions. Polycom's products seamlessly integrate audio, video, and instructional multimedia tools to provide a comprehensive video communications-enabled classroom in one system.

Through interactive distance learning, an instructor can motivate and expose participants to people, places, and experiences without the traditional restrictions of time or location. In less-advantaged school districts, the educational equity of videoconferencing gives students a high degree of classroom collaboration allowing students to interactively participate regardless of geography or classroom size.

MAKING THE DISTANCE LEARNING CHOICE

Budget shortfalls often make it difficult to achieve full educational equality. Therefore, interactive distance learning has proven to be increasingly critical for K-12 and higher education schools, corporate training, continued medical education, and military distributed learning environments.

By incorporating distance learning, teachers experience the technological freedom to teach the way they want to teach, enhancing both the participant and instructor experience. Real-time interactive communications sparks creative and responsive learning. With easy to use systems that bring high quality video reliability to every call, teachers can focus on the education and not on the technology.

Ruth Block, director of distance learning for Cooperating School Districts (CSD) of Greater St. Louis, a nonprofit educational consortium, knows that nothing sets a child on a path to success like a solid education. The work Block accomplishes, thanks to interactive video conferencing content and technology, enriches the curriculum for 300,000 students—one third of the public school students in the state of Missouri.

"Polycom's video conferencing products have enriched the lives of at-risk students, allowing an interaction different from what they get at home," says Block. "Video conferencing has improved the experience IQ for many students in our 64 schools. It gives them the ability for

higher achievement and really tears down the walls of the classroom."

POLYCOM'S CLASSSTATION™ SOLUTIONS

In October 2004, Polycom announced four additional educational solutions based on its Polycom VSX™7000 and VSX™8000 video communications platforms—ClassStation™ Primary, ClassStation Secondary, ClassStation Small and ClassStation Large. These solutions are specifically designed by educators and for educators, for use within any environment and any application.

The complete system enables teachers to expand a classroom around the world, achieving educational equity, gaining access to two-way interactive content, subject matter experts, museums, research, different cultures and even electronic field trips.

The Primary and Secondary systems are based on easy-to-install appliances, and the Small and Large Classroom solutions are based on tightly integrated installed-room systems. Both offer a seamless environment for rich-media collaboration and feature the highest quality H.264 video, Polycom StereoSurround™ audio, closed caption support, segment icons, Web server, Web director, People & Content™, array microphones, and automatic camera operation to the classroom.

The VSX™7000 conferencing products are ideal for primary and secondary packages for fewer students and smaller rooms, delivering robust audio and video in a set-top form using the most advanced video technology and customizable interface.

Polycom performance room systems, like the VSX™8000, provide the industry's most advanced audio and video technology, maximum flexibility input and output connectivity, and robust management tools designed to fit even the most demanding classroom environments. The VSX™8000 is specifically designed for larger packages for more students and larger rooms. The 1U rack amount configuration of the VSX8000 is ideal for integrated environments, like universities and corporate training sessions that require state-of-the-art interactive distance learning video conferencing.

"REAL-TIME INTERACTIVE COMMUNICATIONS SPARKS CREATIVE AND RESPONSIVE LEARNING. WITH EASY TO USE SYSTEMS THAT BRING HIGH QUALITY VIDEO RELIABILITY TO EVERY CALL, TEACHERS CAN FOCUS ON THE EDUCATION AND NOT ON THE TECHNOLOGY."

—RUSS COLBERT

Modeling Distance Education Practices for Graduate Students

Sandra Ratcliff Daffron and Edward Webster

Graduate students in education are facing new demands on their skills when they complete their program of study. A quick perusal of current job descriptions for those with a master's degree in education often finds phrases like "experienced in distance learning" and "must be able to collaborate with others." Each year, rising travel costs encourage more organizations to use the Internet to provide training and manage project workflow for staff in both satellite offices and on the road. For these new distance programs to be successful, administrators must be hired who have experience in both the philosophy and mechanics of distance education and distance collaboration. However, college and university curricula for graduate students in education typically lack required coursework in distance education; workplace collaboration with the Internet is rarely even discussed. Graduate students are leaving their programs unprepared to set up and administer distance education and collaboration systems for education, non-profits, and industry. The Continuing and College Education department at Western Washington University created three no-cost, online resources with the course management system Blackboard to better prepare master's degree graduates for these new directions in adult education and business communications. The Adult Education Distance Learning Lab (AEDLL) is a cyber-lab for field experience students to develop both distance education and collaboration solutions as they interact entirely online with their real-world clients from education and industry. The Student Support Center provides practical resource sharing, communication, and collaboration services for graduate students on several campuses, showcasing state-of-the-art groupware concepts. The Learning Object Repository, designed and managed by students for use by faculty, illustrates the power of electronic content sharing and peer collaboration. This article explains how these three online Blackboard resources were created for graduate education students to observe and experience contemporary educational theory and technology first-hand.

INTRODUCTION

Graduate programs in education are very traditional in their offerings. It is not unusual to find a curriculum that was created 25 years ago still in place with only minor modifications. Each curriculum has its foundation courses, research courses, teaching and instructional

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design courses, and an occasional instructional technology course. Students graduate and leave the program prepared to teach, design curricula, research topics and understand the principles of traditional educational delivery. However, with the dramatic changes in the delivery of information and the technological innovations brought on by the telecommunications explosion, graduates may find themselves in a world in which they are ill-equipped to handle.

The world around academia has changed dramatically in the past 10 years and classrooms are starting to change also. Most campuses now have at least some of their courses delivered electronically. This dramatic change in delivery has come about in a relatively short period of time. Less than 10 years ago, most courses were offered in a traditional face-to-face fashion. The term "face-to-face" wasn't even in use 10 years ago. Classrooms then usually had a screen, an overhead projector, and traditional chalk blackboards. Today's classrooms are equipped with multimedia computers connected to the Internet to accommodate many types of e-learning, learning accomplished with the use of electronic (e) technology. Less than 10 years ago, students most likely used a library computer and communicated by telephone, fax, and postal ("snail") mail. Today's students use wireless laptop computers to download assignments and exams nearly anywhere, chat with other students on cell phones, and routinely use e-mail for communication and to submit assignments. Most students seldom have a need to come to the main campus or study in the university library.

With the convergence of education and telecommunications over the last 10 years, changes have been revolutionary. Sloman (2001) and others have noted that education and training are in the midst of a revolution as a result of these dramatic changes. The impact of this revolution in Sloman's figures from the U.S. Department of Commerce compares the length of time for various delivery systems to take hold. Radio took 38 years to become established, PCs, 15 years, television just 13 years, and the Internet … a mere 4 years! It is clear that the Internet has quickly become an integral part of our daily lives and its impact can be readily seen on U.S. culture, especially in academia.

Harden (2005), in discussing continuing medical education, suggests that a strategic vision for medical education today requires a strategic vision with a revolutionary view of the role of technology in the future. He is looking at a new mindset for the classroom and describes the International Virtual Medical School (IVMEDS), an international partnership of medical schools and health institutions. Instructors and students are trained to use the new technologies along with new learning tools that help them rethink learning. The key piece in IVMEDS is collaboration using the Internet.

Neff (1998) looks at technology as a catalyst for reinventing learning in the community college. Neff describes the Center for Interactive Learning at Sinclair Community College in Dayton, Ohio, created to help faculty members redesign their curricula to meet the new demands of e-learning. The center allows students, faculty, and staff to connect with others in the global community and collaborate on education and technology strategies and solutions.

Because students often prefer distance-delivered classes to face-to-face classes, institutions like Sinclair Community College are scrambling to help their faculty move into the realm of e-learning. The preparation emphasizes that the students should be independent and self-directed learners. McCartan (2000) finds that, in spite of the huge increase of distance-delivered postgraduate courses, there has been little research into student reaction and student satisfaction with this kind of learning.

Graham and Scarborough (2001) and others have found that faculty often deliver their distance courses in a similar manner as they do in a traditional face-to-face classroom. Online faculty must provide handouts and course work electronically well before class, which leads, in their minds, to the conclusion of "extra work without extra pay." Since the students are not sitting in front of them in the classroom they often develop the mindset, "out of sight, out of mind." Bumip (2004) says that, to make the distance learning course successful, the faculty member should "incorporate embedded support mechanisms" that encourage interaction with the materials and with other students. These are lessons that are often difficult for faculty members to grasp. Graduate students do not intuitively understand these lessons either, and leave their programs with little thought about these intricacies of distance education.

Burge and O'Rourke (1998) describe the sense of personal freedom instructors feel when they get past "all that jargon" and their fear of distance education and begin to use the technology, often at first with limited department support. Ehrmann (1998) uses a multilevel tower analogy with an ascending complexity of materials, pedagogies, and basic and advanced technologies to help explain the relationship of distance education to traditional education. But easily accessible, working models of distance education and collaboration may be the most powerful way to de-mystify the technology, demonstrate instructional strategies, and encourage innovation and experi-

mentation for both students and faculty.

THREE BLACKBOARD RESOURCES THAT MODEL BEST PRACTICE

A course management system is a Web-based portal through which distance instructors and students exchange materials, information, and ideas. Many graduate programs nationwide use Blackboard, a popular course management system to teach courses online in traditional distance education fashion. The master's degree program, Continuing and College Education (CCE) at Western Washington University (WWU), uses Blackboard in a nontraditional fashion to teach graduate students how to develop and administer innovative and effective distance education and distance collaboration solutions for application in education, nonprofit, and industry sectors.

Blackboard allows the instructor to easily create an online classroom by customizing a prebuilt template. Each course typically has course material areas, discussion forums, and group workrooms for the distance education instructor to conduct class. However, Blackboard has the flexibility to allow instructors to create a "course" for nonclassroom collaborative activities, enroll "course" members as they choose, and recycle this "course" term after term.

RESOURCE ONE:
ADULT EDUCATION DISTANCE LEARNING LABORATORY (AEDLL)

The traditional face-to-face classroom is the setting commonly used to teach instructional design theories and the fundamentals of facilitating effective distance learning. In the past, CCE graduate students supplemented their classroom work with "laboratory" work, designing, creating, and administering distance-learning exercises for fellow students. However, distance education in the real world is quite different from the laboratory experience. A typical learning institution's first exposure to distance learning is often in a setting where:

- Instructors have little or no extra time or expertise to prepare distance learning material;
- Students have a variety of hardware and software problems and issues;
- Faculty and students are confused about what distance education is and what it isn't; and
- Course management systems are often difficult to understand and operate without someone to provide guidance.

As part of the degree requirements for the WWU CCE program, students are required to complete an education-related field experience. Each term, a number of students want to learn how to deliver distance education as part of their field experience to broaden their experience and be more valuable in the job market. But many challenges faced them as they:

- Wanted to learn how to deliver a distance education course without taking a full instructional technology course on distance learning;
- Needed to learn collaboration techniques to allow them to exchange distance learning solutions and techniques—to learn from other students;
- Share lessons learned with past field experience students; and
- Lived all over a 600 square mile area, making it nearly impossible to gather all field experience students together in one distance education lab.

A Blackboard course site was set up and named the Adult Education Distance Learning Lab (AEDLL); enrolled in this "course" were field experience students and their CCE faculty advisors. The elements of any physical laboratory are easy to visualize directly, but the elements of this cyber laboratory are easier to visualize as analogies:

- Lab Building (Blackboard course site);
- Lab Resources (URLs, reference documents, and multimedia);
- Lab Equipment (Software and document templates);
- Lab Bulletin Board (Blackboard discussion forums);
- Lab Archives (Electronic archive of past student field experiences);
- Lab Instructor (faculty supervising field experience project);
- Lab Assistant (student volunteer to maintain the AEDLL); and
- Lab Students (students conducting field experience work)

When the field experience started, students were given their own Blackboard course site to develop, using a sample syllabus and several Blackboard tutorials supplied by the Lab Assistant. The students used the tutorials to guide them through the wide array of configuration menus and to get to know the capability of Blackboard. After several weeks of practice and feedback, students set up their own "dummy" course for critique by the Lab Assistant and Lab Instructor. If their development work met certain standards, the graduate student was considered ready to work with a real-life client.

As with other CCE field experiences, AEDLL students researched, proposed, and set up their own field experiences with an area client in the business, education, or the non-profit sector. However, for AEDLL, the CCE student's field experience had to specifically

involve teaching a client how to plan and set up a distance education or distance collaboration system. It was felt that to really understand distance learning, the graduate student should successfully work in a real-life situation with a subject matter expert, teaching him or her to present material effectively online. AEDLL field experience clients included WWU and area community college faculty, directors of nonprofit organizations, and state agencies. Students collaborated on solutions for their individual client's projects with faculty advisors and other students using AEDLL discussion forums. Distance learning resources and materials as well as the CCE student's formal field experience paper are archived permanently each term on AEDLL for review by future students. AEDLL is recycled and reused each term so all resources and student work added to the cyber-lab will not be lost.

Often, the CCE student develops a client's online course or group collaboration site using a separate Blackboard course site or the client's actual Web site or course management system. The faculty advisor, the Lab Assistant, and fellow AEDLL students provide feedback and advice on the development of the distance technology project in AEDLL message forums; the client provides feedback and material via e-mail directly to the student.

The AEDLL cyber laboratory is self-sustained by the resources and projects contributed by CCE students each term. A graduate assistant, a CCE student taking academic credit, or a CCE student volunteer, handle the cyber-lab maintenance duties as a Lab Assistant each term.

Empowering CCE graduate students to learn to collaborate and share real-world distance learning theory and practice was the major goal of AEDLL. In addition, faculty,

and community clients all realize benefits from the cyber lab:

- Student: real distance education and collaboration experience with peer support;
- Faculty: increased university and community exposure for department; and
- Client: enlightened assistance with distance education and collaboration.

The cyber laboratory requires no set-up cost and little faculty effort to sustain once established. The archive of student distance learning projects in AEDLL provides a highly visible showcase for graduate student work and helps new AEDLL students develop more innovative projects with each new term.

RESOURCE TWO: THE STUDENT SUPPORT CENTER

Students in the CCE graduate program at WWU attend classes on both the main campus in Bellingham and a satellite campus in Everett, a Seattle suburb. Students are typically returning adults, busy with family and career obligations, and many take their classes through distance learning. Interaction with other students and instructors on the other campus is often limited to department-sponsored events, electronic newsletters, and informational e-mails.

It is common for a student on one campus to never meet or even know the names of most of his or her cohorts on the other campus. Students from the Everett campus use telephone, e-mail, and postal letter for nearly all department communication and rarely visit the main campus departmental offices. It is a challenge for the faculty to build and maintain a sense of community among this time-chal-

lenged, geographically diverse, student population.

The CCE program provides students with academic and learning resources in the form of books, pamphlets, and multimedia in a common department office area. An office bulletin board is available for students to post messages to other students about selling books, tutoring help, and so forth, and for faculty to post photos of new students on the main campus. But because of the satellite campus, DL classes, and electronic communication, the majority of CCE students see the department office just once or twice in their graduate career.

Blackboard offers several distinct advantages as a platform for cyber version of the CCE department office:

- The software is already in use and familiar to both students and instructors;
- Access to the cyber resource center is secure and limited to the CCE program; and
- The cyber resource center can be easily maintained by CCE students themselves.

A cyber resource collaboration center called "The Student Support Center" was created using Blackboard. However, The Student Support Center Blackboard course site is quite different from a traditional DL course site in two ways:

- Each term the same Student Support Center course site is recycled and reused, and
- Each term all current CCE students are added as members of the Support Center.

"Chat rooms"—discussion forums on a wide variety of nonclass related topics—are in the support center, and help all students communicate much easier; students frequently request new chat rooms with differ-

ent topics. A "Gallery" of photos, bios, and contact information of all students and instructors in the CCE graduate program help everyone from both campuses put a "face with the name." An easily navigated "Library" of CCE related electronic resources include:

- Web links to pertinent CCE and education Web sites;
- CCE-related articles and books organized by subject;
- Annotated bibliography of articles covering the field of adult education;
- Help files for CCE course related software and technolog;
- Archive of CCE program forms, pamphlets, and CCE program newsletters;
- Archive of photos and materials from department events and symposiums; and
- Self help files provided by students to help study for comprehensive exams

A single volunteer graduate student or independent study student easily maintains The Student Support Center each term. For virtually no cost, the cyber Support Center enhances the WWU CCE graduate student community, provides easy access to learning resources and serves as a working model of peer collaboration and resource sharing.

RESOURCE THREE: THE LEARNING OBJECT REPOSITORY

Instructors in the CCE program use computers to create a variety of electronic resources for both face-to-face classes and distance education classes, including:

- Word processor files;
- Slide presentation files;
- Audio and video files; and
- Portable document format (PDF) files

However, the organization and cataloging process of these electronic resources for reuse in future courses is not easy for most instructors. Faculty and graduate students developed an innovative department-wide solution using Blackboard and learning objects.

A learning object is any electronic resource used and reused in technology-enhanced education and distance education, differing from their paper-based counter parts in two significant ways:

- Learning objects can be easily distributed to students at virtually no cost, and
- Learning objects can be easily shared between instructors in different courses

A new Blackboard course site, the Learning Object Repository, is different from a typical Blackboard course site:

- Enrollment in the Learning Object Repository is limited to CCE faculty and staff, and
- Each term, the Learning Object Repository course site was recycled and reused

Adding learning object files, with titles and descriptions, to The Learning Object Repository was no different for CCE faculty than the addition of material to their individual Blackboard courses. But there is significant saving in effort by uploading the learning object file to the Learning Object Repository just once, then easily copying it multiple times to future course sites with Blackboard's copy utility.

To minimize confusion, a few simple rules were established:

- Submission of learning objects by CCE faculty was voluntary;
- Learning objects may be used by any CCE faculty in any course;

- Learning object titles and descriptions should be clear and concise;
- Learning object titles, descriptions and content should contain no specific course references;
- Learning objects should be organized by topic, not course; and
- Learning objects should include author and creation date information.

The wording of the title and description of the learning object is especially important to minimize student confusion when the file is used in future courses. If desired, the learning object author information and creation dates may be hidden in Blackboard metadata fields for future reference by CCE faculty only.

When a learning object in the CCE Resource Center is needed in a new Blackboard course site, the learning object itself, its title, and description are all easily copied to the course site with a menu-driven Blackboard copy utility in one operation. No editing or alteration of the title or the object itself is needed. Entire folders of learning objects in the repository can be copied to Blackboard course sites with this same copy utility. For example, an entire folder containing a rich mix of Web links, documents, and multimedia files on the subject of grant writing could be copied to any CCE Blackboard course site in one step.

The ease of copying learning object files encourages CCE instructors to provide supplemental learning material to graduate students. The WWU CCE program is not a lock-step program, and often students are asked to use education concepts in a current course that they have yet to learn. For example, a CCE instructor can choose to copy an entire learning object folder of sample lesson plans to a Blackboard course site to supplement a related discussion on instructional design.

With minimal effort, the instructor has provided a rich mix of support material to support and enhance student learning.

Keeping all CCE course material in one secure location on the WWU Blackboard server system and not solely on individual faculty computers enhances file security; a CCE graduate assistant archives the entire CCE Resource Center weekly for additional safety.

Skepticism of the technology and concerns for intellectual property often punctuate discussions about sharing electronic instructional materials among department faculty. The experimental use of learning objects by graduate faculty can be encouraged with a no-cost, easy-to-use Blackboard-based repository.

SUMMARY

If recent articles on distance education and collaboration are correct and we are at the beginning of a revolution in learning brought on by the Internet, then our graduate students need to leave our programs with tools ready to partici-pate in the revolution. By using a course management system to teach graduate students how to deliver instruction at a distance and facilitate collaboration, they can leave graduate programs ready, not only to participate in the revolution, but also to lead it. With a little imagination, some clear direction by faculty, and lots of student effort, any graduate program can replicate and build on these three modeling resources.

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IF RECENT ARTICLES ON DISTANCE EDUCATION AND COLLABORATION ARE CORRECT AND WE ARE AT THE BEGINNING OF A REVOLUTION IN LEARNING BROUGHT ON BY THE INTERNET, THEN OUR GRADUATE STUDENTS NEED TO LEAVE OUR PROGRAMS WITH TOOLS READY TO PARTICIPATE IN THE REVOLUTION.

Virtual Student Organizations
Building Community in Online Degree Programs

Erika K. H. Gronek

J ust as community building has been an important mechanism for engaging users in e-commerce, the value added by developing community also applies in online education. The newest incarnation of education community building is burgeoning in the form of the student organization. Virtual Student Organizations (VSOs) can alleviate distance students' sense of isolation from a physical campus, as well as deepen the engagement of students in their studies. These organizations ensure student representation, provide

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academic support, serve as a liaison between students and instructors, as well as aid graduates with networking opportunities.

Student representation is especially important to student populations that are isolated from a physical campus. Individual voices and occasional evaluations conveying administrative and academic concerns will not typically be given the same weight as the voice of a recognized and unified student group. By broadening the representation of students to include student organizations that support students who are taking courses solely at a distance, educational institutions can recognize and address many of the challenges faced by distance students.

VSOs can help administration and faculty to better serve their distance student body. In some ways, being a distance student can be analogous to having a physical disability that limits access to academic resources. Distance students often have trouble with administrative paperwork, receiving student identification cards for library access, technical issues, and transitioning into an online format. The "disability" of not being physically on campus can, however, be overcome by engaging in a proper dialogue between students and administration/faculty. The VSO is an orga-

nized channel of communication that can help improve the distance student experience.

Through VSOs, online students can also take advantage of opportunities to develop leadership skills and responsibilities. Organizing a VSO requires leaders to conceptualize and communicate the value of a student organization differently with peers, administrators, and instructors. After all, since interactions are conducted via threaded bulletin boards, polls, e-mails, and chat rooms, the unique leadership and communication strategies must be selected carefully. Leaders participating in student organizations as officers can additionally have the opportunity to lead by working on initiatives and delegating tasks to committees. Officers must also help facilitate conversations, answer questions, and communicate the group's concerns to administration and faculty. Newsletters are especially vital to VSOs because they convey the achievements and direction the group has taken, and offer a record for future leaders in the organization.

Using online bulletin boards, VSOs offer students the ability to support each other in their academic pursuits. While many individual online courses have a student lounge for social interaction, the advantage of a VSO-sup-

ported bulletin board is that it is both continuous from semester to semester and it can be available to all distance students in general, or distance students within a particular major. This allows students to confer about classes, textbooks, graduation, seminars, job opportunities, conferences, and other educational opportunities. This interaction can, furthermore, help foster long-term bonds between students as they progress through a program of study.

A VSO can also lend a personality and a face to students, instructors, courses, and the school. Students feel connected to the school through a VSO, and may feel a sense of allegiance and belonging. This can set up a vital behavior pattern of involvement, which is fundamental to the existence of a VSO, and can help promote the e-learning study skills necessary for success in classes that require participation.

As an aid to students as they transition into the workforce, a VSO can additionally provide a network of peers in the same industry. Instructors, alumni, and students can use the bulletin board as a means by which to distribute job postings, share industry news, as well as advice and mentoring. Oftentimes, online programs try to blend students' work experiences and what they are learning in their classes. A VSO can further support these efforts and this advantage can last beyond the scope of the single semester. In addition, the asynchronous nature of a VSO adds flexibility for members so they can have opportunities to participate in student organization activities that have traditionally been available only to on-campus students.

VSOs serve a vital role in transforming the identity of distance students and can influence how students interact. A VSO community can engage students deeper

into their major, deepen counselors/ faculty relationships, and provide opportunities for unique student involvement. The identity of a distance student is often described as one of a faceless e-mail address that generates papers and participates in online forums. As a result, distance students are often forgotten when it comes to offering job postings, internships, publication opportunities, and student government activities.

To date, there have been very few examples of sustained VSOs. Some institutions support their student organizations with program administrators, while other student organizations are student-sponsored, -developed, and -maintained. VSOs can also be differentiated by those that are completely online and those that have a blended format with elements of online communication as well as a face-to-face component.

The George Washington University has a VSO that is a model of a completely student-initiated and university-sponsored group. The Educational Technology Leadership Student Organization (ETLSO) was established to connect distance Educational Technology Leadership (ETL) graduate students with each other and The George Washington University campus. ETL students live all over the world. They are separated by time zones and locale, but are joined through technology. ETLSO is intended to be a social, educational, and networking forum for ETL students. Through ETLSO, ETL students have opportunities to demonstrate leadership, practice their technology skills, and prepare for the workforce.

A look at the inner workings of the group can reveal many useful rules, roles, and norms involved in creating a successful and sustainable VSO. For example, members must subscribe to the online newsletter and bulletin board, as it is the

only centralized form of communication, and members are considered to have voluntarily withdrawn from the student organization if they remove themselves from the newsletter mailing list. There are no dues for the organization, though donations are always accepted. In order to sustain the organization and develop internal leaders, there are seven officers in the Educational Technology Leadership Student Organization: president; vice president of communications; Web site administrator; recruitment and public relations officer; and facilitators of education, leadership, and technology.

The role of the president is to lead and plan the activities of the organization, as well as direct the activities of the other officers. The president must help ensure high participation levels in the organization, as well as ensure that the organization members have a positive and active experience. The Vice president of communications' function is to coordinate members' involvement in the weekly and/or monthly newsletter. The vice president will personally create and/or seek out newsletter submission topics, articles, links, requests, inquiries and all other meaningful content.

The role of the Web site administrator is to update and organize online content for the organization. He or she helps to facilitate a sense of belonging and online community. The recruitment and public relations officer is in charge of promoting the ETLSO to ETL students without spamming them, and he or she informs new ETL students of ETLSO's existence and what ETLSO has to offer. the facilitators of education, leadership, and technology help initiate and moderate online bulletin board discussions and chats. They also seek opportunities for the organization to become more involved with its members,

the campus, and the community. All of the officers contribute to the newsletter, as that is the centralized means of facilitating communication.

Even though ETLSO is still a pioneer of virtual student organizations, it has reaped positive results for ETL students, the instructors, and the academic program. The forums get especially busy when topics like class registration, book purchasing, and graduation are discussed. Students have been able to hold educational chat sessions on practical topics, such as Web page creation and educational technology. A few students have been fortunate to meet in person after networking and discussing their travel plans for various seminars around the country. Some postings have even sought advice for practical job-related issues, such as choosing a learning management system, while other postings report the latest news in educational technology.

ETLSO's plans involve more communication with alumni and employers, as well as scheduled guest "speakers" for chat room events. Alumni and employers have great potential in regard to networking for jobs, internships, and volunteer opportunities. Through guest speakers and visiting professors, the goals of the VSO are to sustain interest and engagement, to enlighten members on industry trends, and share wisdom about current topics.

Overall, VSOs are a rethinking of how conventional student organizations function and the role of distance learning students in education. Technology is a great translator of physical world activities into virtual ones. The ability of technology to create useful communities for online students is a story that is just now being written. With the dynamic communication options offered by the Internet, VSOs now have the potential to offer engaging and active online experiences to students that may never set foot on the traditional campus and, with virtual student organizations, online degree programs can add value to what could otherwise be an isolating, impersonal educational journey.
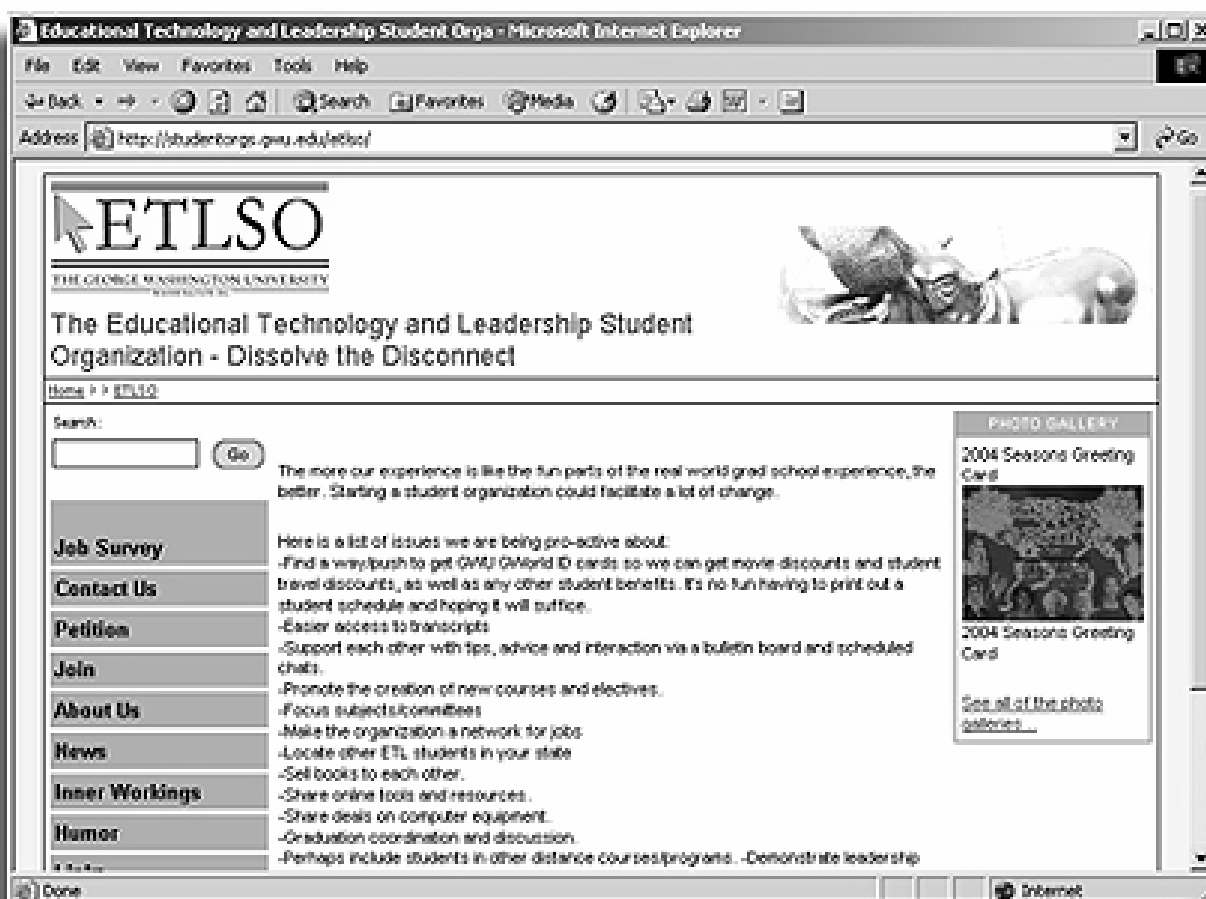

Figure 1.

Project Management for Online Course Development

Dong Li and Rick Shearer

Transferring face-to-face courses into online Web-based courses is a trend in higher education. Whether this course transition is for distance education or for resident instruction, faculty members play a critical role in the process. Faculty members not only provide lesson content, they also provide important insights into how content has been best presented in classes semester to semester. However, faculty involvement alone does not guarantee a quality online course. It is the combination of faculty working with an instructional designer and the instructional design team that molds the content and personal teaching experience into a rich learning environment for the online students. Further, this transition process must be guided by a solid project plan that outlines major milestones for the faculty and team members, for without a solid project management plan, content may not arrive when needed and resources cannot be scheduled to assure that the course is completed in a timely manner. Delayed or unexpected lesson content will lead to project cost overruns and missed deadlines.

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THE PENN STATE WORLD CAMPUS

The Pennsylvania State University has been involved in distance education since 1892 and has produced courses that have been delivered via a variety of media. While the traditional rolling enrollment courses had occasionally integrated various Internet technologies, such as listserves and gophers, it was not until the launch of Penn State's World Campus in 1997 that development of wholly online courses commenced. The launch of the World Campus, the primary delivery unit for courses offered to students at a distance,

marked a shift in design models and project management challenges. From the first online courses in Turfgrass Management and Noise Control Engineering, delivered by WebCT and FirstClass, the World Campus has grown to over 200 online courses being offered via Angel and related technologies to students around the globe. Throughout the past 7 years, the Instructional Design and Development unit of the World Campus has changed, adapted, and modified the project management strategies used in the design and development of these Web-based courses.

Responsibility for the transitioning of traditional rolling enrollment courses and face-to-face courses to online courses rests with the Instructional Design & Development (ID&D) Team of the World Campus. This team consists of a director, assistant directors, project managers, instructional designers, instructional designer specialists, graphic artists, a multimedia team, production specialists, technical typists, and a technology team (programmers) who have different responsibilities.

Authors of the Web-based courses are Penn State full-time faculty members. These faculty members work with the instructional designers to determine learning goals and objectives, generate ideas, write the lesson content and storyboard, provide test items and exercises, and suggest multimedia selections.

It is the task of the instructional designers to develop the courses within a given timeframe and within budgetary constraints. This role takes on great significance as more academic units look to technology as a means of offering hybrid courses and wholly online courses in residence and at a distance to assist with student demand and a need for greater flexibility in scheduling. It is imperative that these ventures be done within budget and on time in order to show a return on investment for both the institution and the academic units.

PROJECT MANAGEMENT MODELS

Over the years, distance education at Penn State has had a tried and true project management practice for the development of print-based independent learning courses. This model allowed for an 8- to 12-month development cycle in which faculty authors first met with the designers to review their existing face-to-face course and examine existing print-based courses. At the end of the initial meeting, the faculty left with a course design guide in hand and were tasked with the construction—in writing—of their course content. This process normally took 6 to 8 months. Once the faculty member had finished the draft of the content, he or she once again met with the instructional designer who then worked with the faculty member to tailor the course, learning activities, and assessment strategies to the distance education students. Once the faculty member and the designer had crafted the course, the final product went to the academic unit for approval and was then sent to the technical typists for final preparation in the templated study guide format. As these courses were independent rolling enrollment courses, they did not open to student registration until they were completed and copies of the course study guide were available for distribution. Therefore, if timelines were missed it had little impact on student expectations, and costs were contained as faculty were paid a flat rate for development, and designers did not begin work on the courses until all content had arrived.

As Penn State moved to begin the transition of face-to-face courses to online courses, it was perceived that a similar project management cycle would work for the online courses. Therefore, the original project management model for the design and development of online courses mirrored that of the print-based courses, with one semester allocated to the development of content by the faculty and the second semester being dedicated to the production of the course in the WebCT environment.

However, what worked well for the design and development of the print-based courses did not translate well to the development of online courses. The online courses tended to be semester-based courses and part of integrated curricula. Therefore, it was often the case that the announcement of these courses and program of study preceded actual development, and timelines for delivery were locked down due to the advanced registrations. Thus, missed deadlines led to delayed launches or courses starting when they were not complete. This added a great deal of pressure to the faculty authors, designers, and instructors.

An all-too-frequent experience in the early development of the online courses using the two-semester model was delayed content delivery. Faculty authors for the online courses were full-time faculty with great demands on their time, thus the idea of sitting down to write a full course was often overwhelming. Therefore, it was not all uncommon at the end of the first semester of development that content was not complete and both the faculty and the design staff had to cut corners and work long hours to get the course finished by the end of the second semester.

Upon examining these process failures, it was determined that a better project management model

needed to be implemented. This led to a series of benchmarking visits with the corporations involved in the development of online courses and with other institutions involved in distance education. The final result was a project management model dubbed the 2-week cycle model.

TWO-WEEK CYCLE MODEL VERSUS THE TWO-SEMESTER MODEL

As stated above, the two-semester project management model provided faculty with one semester to write and develop content, and then the design staff were given a second semester to develop the course. However, in several instances, content arrived late, thus pushing out the projected completion dates. In 2003, a new 2-week cycle model was adopted that adjusts expectations for the faculty in terms of content due dates, and allows the content to be mocked up and tested in a cyclical process.

The Two-Week Cycle model allows designers to develop and get each lesson or unit of a course ready for review in two weeks. During the first week of each 2-week cycle, designers work closely with faculty in order to get lesson content on time. Then, during the second week, the design staff mocks up the lesson online and prepares it for review by the faculty. Also, within the second week, faculty begin writing the next lesson or unit of content. By the end of the first week of the next 2-week period, content for another lesson is ready for the designer to develop and integrate into the Web-based course. If a Web-based course has 12 lessons, ideally, 24 weeks (6 months) later, the course should be ready for final review and editing prior to opening. One of the key benefits of the Two-Week Cycle model is designers

receive content every other week, which keeps things moving. Another benefit is constant communication with faculty, who go over design questions each week with the designer as the lesson is being developed and get a real feel for the instructional design process. Faculty and designers can anticipate areas to modify in the lessons as the course unfolds which results in a better course when development is completed. Thus, the 2-week development cycle allows faculty to get each of the lessons in on time, which is the desired goal of the designer.

While the conception of the two-week model is around a 2-week cycle, designers have adapted this to meet the schedules of certain faculty. Some have adopted a 3- or 4-week cycle with two or three lessons due at the end of each cycle. Regardless of the length of the cycle, which should be no longer than 1 month, the process helps keep the faculty authors and the design team focused on the development needs and the agreed-upon development milestones.

CRITICAL STAGES OF THE TWO-WEEK CYCLE MODEL

Critical to the 2-week cycle model is the first 5 weeks of the project management model. During this 5-week period, five key things must occur. First, the faculty must deliver a completed draft of their course outline or syllabus. This initiates the first design team meeting where the team discusses, with the faculty, all aspects of the course. During this meeting the course is dissected, graphic and multimedia elements are reviewed, readings are identified, and copyrighted material is discussed. At the end of this first meeting the faculty and design team have a good conceptual idea of how the course will be developed

and what resources are required to complete the task.

Following this first meeting, the designer works with the faculty to mock up one of the lessons. This process provides further insights into design requirements and resource needs. Also, during this process all copyrighted material is identified that will need clearance. Upon completion of the mock up of the lesson the design team meets once again in the fifth week to finalize the design, budget, and timeline. A product of this meeting is the final design document for the course.

HOW TO WORK WITH FACULTY INVOLVED IN THE DEVELOPMENT OF A NEW WEB-BASED COURSE

The above has outlined the conceptual aspects of the 2-week model. However, what are the tools employed that facilitate the process? Designers need to work with faculty efficiently and effectively to guide faculty through writing online lesson content and providing the necessary materials. In order to do so, designers may use the following steps:

- create a project management Gantt chart;
- create a mini Web site for the project management;
- provide a detailed course outline form with a sample;
- provide a lesson content template with examples; and
- make a regular communication plan.

CREATE PROJECT MANAGEMENT GANTT CHART

It takes time to establish a long 6-month timeline using a calendar. With software, such as Microsoft

Project 2003, one can easily create a Gantt chart that contains timeline, project tasks, names of who need to complete a specific task, task starting date and ending date, and task time duration, and so forth. Gantt charts allow a convenient way to make a detailed project management plan, as well as remind all of the team members what tasks they should do and the completion deadline for each task.

CREATE MINI WEB SITE FOR PROJECT MANAGEMENT (SEE APPENDIX A)

While the Gantt chart provides the designer and team members with a detailed look at the project management plan, it is difficult to share in a printed format due to its length. But you can easily create a mini Web site (two to three pages when printed) for project management based on the Gantt chart with team member tasks and deadline for each task highlighted. Compared with Gantt chart, the mini Web site is easier and more convenient for team members to check what they should accomplish each week and be aware of their tasks and deadlines so that they can plan their time accordingly. Also, a mini Web site provides a blueprint of the project for the whole team. Moreover, it is easy to update in order to track a project.

PROVIDE DETAILED COURSE OUTLINE FORM WITH A SAMPLE

Once a faculty member has a project timeline in hand, and understands what to do overall, it is time for him or her to review how lesson content has been written for other distance education courses. The first thing the faculty member should draft is a detailed course outline. This provides faculty with a clear idea of what the final course will include. It can also serve as the basis for the syllabus for the course. Below is a typical course outline that shows what might be included:

- *Course description.* In this section, faculty may answer the following questions. What will be covered in the course? Will this course be an independent learning course, or will there be other students pacing through the course at the same time (as they would in a face-to-face class)? Will you expect students to interact with fellow classmates? Will you expect students to stick to a prescribed pace of study or can they work through the course at their own pace?
- *Course goals/objectives.* List four or five broad statements describing what faculty hope students will know, or be able to do, or have experienced as a result of taking the course.
- *Course prerequisites.* Let students know if there are course prerequisites for this course.
- *Outline of overall course structure.* The following questions will be answered in this section: How many lessons will be included in the course? How much time will students spend to complete the course? How much time will students have to work through a single lesson? How much time do faculty expect students to devote to the course each week?
- *Required course materials.* List any textbooks, articles, workbooks, videos, software, or other special materials students will need access to in order to complete the course. For each item, provide as much identifying detail as possible (such as ISBN number for a textbook or ordering information for a brochure).
- *Course requirements.* List the graded assignments for the course (papers, projects, quizzes, exams, class participation grades, etc.) with directions that students can follow to complete assignments, as well as the percentage of the course grade that each assignment will be worth.
- *Each lesson-specific objectives.* Objectives for each lesson are listed here.
- *Proposed schedule.* Lesson titles, scheduled timeframe, related readings, and assignments will be listed.
- *Grading scale.* Let students know the grading policy, such as how many points are required for an "A" grade, and so on.

It is good practice to provide faculty a sample course outline from a real course to help them understand how to draft their own course outlines for online courses.

PROVIDE A LESSON CONTENT TEMPLATE WITH EXAMPLES

With the course blueprint—detailed course outline in mind—faculty can start to work on lesson content. After many years working with faculty, we have found that it is easier and really helpful if we provide faculty a lesson content template. A lesson content template with examples lets faculty know what they should write without taking too much time to determine how to get started. A lesson content template might include.

- Introduction;
- Lesson objectives;
- Reading assignment;
- Reading tips/summary;
- Lesson content/commentary/ class notes;
- Lesson activities; and
- Lesson summary.

MAKE A REGULAR COMMUNICATION PLAN

A regular communication plan will allow the designer to work closely with the faculty—for exam-

ple, weekly phone calls can save time in terms of tracking the project or solving problems.

CONCLUSION

In summary, designers need to work with faculty closely to meet tight project deadlines. When the designers spend time creating sam-ples, template, and detailed guidelines for faculty, this will save time and avoid the need to revisit many details in later discussions between designers and faculty during the course development process. With the above method to manage a project, the 2-week cycle model, and the above documents to guide faculty to write lesson content, the Web-based course project will be effectively and efficiently designed, developed, and will, it is hoped, meet the project deadline on time and within budget. We hope that these ideas are helpful for you when you work with faculty to transfer a face-to-face course into online Web-based course.
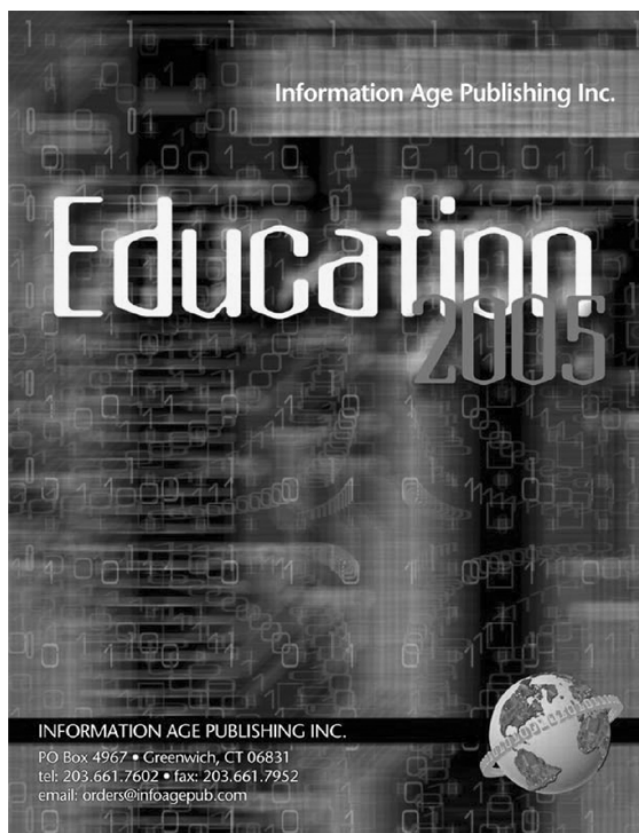
… But First There Are the Communication Skills

Lya Visser and Muriel Visser

INTRODUCTION

We live in exciting days. Never has it been easier and cheaper to communicate. Instructors and learners can, provided that they have access to appropriate technology, now bridge geographic boundaries by using the advanced communication media and possibilities that we have at our disposal such as e-mail, fax, and computer conferencing. The new opportunities have led to a renewed and challenging interest in e-learning (in most instances e-learning includes distance education) which depend on instrumentally rational and strategic actions that have to be imparted with the help of technology (Peters, 2000). However, new channels of communication do not necessarily imply better ones. The critical issue, from a communication perspective, is thus to deploy and integrate technology in such a way in the teaching and learning process that deep and meaningful learning takes place.

Contrary to many of the other contributions in this interesting journal, this contribution will not focus on communication technology itself, but will focus on those communication processes that are conducive to learning and instruction (i.e., that encourage and foster learning processes). We briefly discuss some theoretical aspects of communication and then bring into this discussion the opinion of distance learners from a variety of contexts and areas by presenting the results of a pilot study and a follow-up exploratory study of communication skills and processes in distance learning environments. The theoretical background and the results of these studies will lead to a variety of suggestions as to how to improve communication and thus enhance the learning experience of students.

The nature and quality of communication in various (learning) environments have been the focus of a number of studies and scholarly reflections over the past decades. We have selected from the contributions to this area of thinking three different but complementary perspectives that served as the impetus for the two research studies and for our recommendations.

THREE IMPORTANT DEVELOPMENTS IN THE SCIENCE OF COMMUNICATION

SHANNON AND WEAVER'S VIEW

Let's first look at what happened some 50 years ago. About 10 years after World War II, the exciting possibilities that audiovisual instruction

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offered began to receive significant attention in teaching and learning environments. The challenges and opportunities audiovisual instruction offered, mostly through the development and expansion of radio and television networks, sometimes caused the practitioners to forget how important sound communication processes are and the role of communication as the glue that holds a system together.

The new opportunities to offer audiovisual instruction were accompanied by interesting thoughts that communication specialists and psychologists like Shannon and Weaver and Rogers developed. It started out in a very simple way with statements such as that a communication process involves a sender of a message, a receiver of a message, and content and that, if one of these three elements is missing, there cannot be any communication. Numerous subsequent theories and models of communication were based on this early work. By the end of the 1940s, Shannon and Weaver had developed a very simple communication model that basically looked at three elements: a transmitter who develops or produces a relationship (the signal) that travels to a receiver (Shannon & Weaver, 1963). Shannon had a personal and professional interest in communication, as he was a scientist at Bell Telephone Company.

Berlo (1963, who was a communication specialist, built on the work of Shannon and Weaver and identified two encoding skills: speaking and writing, and two decoding skills: listening and reading, and a crucial fifth skill that relates to both encoding and decoding: thought and reasoning. How we think, what we think about, and how we express our thinking are determined by our ability to use language effectively: we need to have the ability to encode the thoughts we have. Many of us have been

abroad and have experienced the frustration of not being able to express oneself well in the language of the country that was visited. Finding the right word is not finding a word that expresses more our less what we want to say; it should have the same meaning for the "decoder" as for the "encoder," in other words, for the person receiving the message as for the sender of the message. Berlo emphasized the importance of the relationship between the skill level of the receiver of the message and the source of the message, and thus draws our attention to the unpredictability of communication: an incapable decoder will find it hard to decode effectively.

Thus, how we see the world and how we think are not only affected by the codes we use, but also by how skillfully we use the codes. Berlo (1963) emphasized the importance of the quality of communication and saw the relationship between the source and the receiver as an important variable in the communication process. He had some words of warning for those who enthusiastically thought that all problems would be solved now that we had better communication means and media: "As a communication man I must argue strongly that it is the [communication] process that is central and that the media, though important, are secondary" (1963, p. 378).

These days, it is generally agreed that students do not only need effective communication to support the intellectual part of the learning process, but also in the affective area; that is, students need cognitive (academic) and affective (empathic) comprehension. Communication processes are related to building relationships, and relationships in turn are vehicles for growth (Rogers, 1969).

We will briefly discuss the contribution of Carl Rogers, a scientist

with a background in psychology, whose work has applications far beyond the counselor-client relationships on which he based his research. A little later in this article it will be seen how the research that we conducted confirmed Rogers' ideas and identified, among others, a general lack of emphatic comprehension in distance education.

We all agree that oral communication is often preferable to written communication. Oral communication includes the joy of hearing words that have inherent a timbre, sometimes a musical inclination, passion, care, and interest, but also can transmit worry, anger, or lack of passion. Spoken words may include more than the conscious intent of the speaker. Oral communication often offers the possibility to a direct reaction: a dialogue.

ROGERS' VIEW: THREE BEHAVIORS ESSENTIAL TO EFFECTIVE COMMUNICATION

Rogers (1962) wrote a groundbreaking article in which he argued that the quality of the interpersonal encounter with the client, in our case the student, is extremely important to make it possible to build up a relationship and to make it possible for this relationship to grow in a mutually satisfying manner.

What we can learn from Rogers is that the way in which we communicate in personal relationships and in instruction is very important. He identified three behaviors that form the basis for successful communication: open disclosure, warm affirmation, and empathic comprehension. The first behavior, open disclosure, means that the relationship is mutual and is based on more than the minimum information to work together. If we look at a face-to-face class, many students have more information about the instructor than the bare minimum. Students

often know where their instructors have studied, where they live, what kind of car they drive, what kind of sport they like and other, more personal, details. They meet their instructors at parties, seminars, and sport events. At a distance, that is more difficult. The absence of face-to-face interaction creates a barrier that makes it difficult and sometimes undesirable to engage in interaction on nonacademic topics. This causes the instructor and the student to stay, in the real sense of the word, at a distance and to maintain a relationship that is based purely on academic and professional dimensions of interaction. The second behavior, warm affirmation, relates to how student and instructor feel at ease with each other, how their relationship develops. Does it stay at a distance or does the student feel that the instructor is not only teaching or facilitating because he or she has to do it, or wants to earn some extra money, but is really interested in the student and has the wish to know the student better, not only as a "pupil" but as a person? The third behavior, empathic comprehension, refers to the capacity of the "other" (i.e., either the instructor or the learner) to place himself or herself in the position of the opposite party and to be understanding and partial of his or her position. Student and instructor should have the feeling that the other knows what it is "to be me." Rogers' empathy concepts are clearly aimed at dissolving alienation and at creating positive outcomes.

HOLMBERG'S GUIDED DIDACTIC CONVERSATION

Holmberg (1986) noticed that communication in classroom situations often is conversational. Students and teachers/instructors participate in a process in which students—and possibly instructors as well—are learning through talk-

ing about a topic. There are questions raised and answers provoked. Handy (1992) describes a learning situation as a wheel in which questions lead to ideas, which in turn lead to the testing of the ideas to produce reflections, which in turn lead to new questions. Creating such a learning situation is not so easy in distance education. Students frequently study on their own, although these days chat sessions and instructional classes may be included in the e-learning process, but as we will later see when discussing the results of the two studies, do not necessarily reduce the sense of isolation. It is, however, also true that, at times, the spontaneous interaction so valuable in a classroom situation is absent, and this has consequences for the other dimensions of the instructional environment, such as critical thinking, spontaneity, and creativity, important ingredients to an enhanced learning process. In addition, instructors in a classroom setting may be more at ease to give "personal" examples from when they were students, from their family life, and/or from those little occurrences that have influenced thinking about certain things or have changed views. Instructors also have some basic information on the students. Is he or she punctual, difficult, widely read, understanding, or maybe stubborn?

Holmberg (1986) advocated the creation of learning situations that aimed at reducing the distance in distance education by simulating a conversation between student and instructor. He argued that learning materials should not focus exclusively on "transmitting" factual knowledge, but should act as an instructive conversation between instructor and a student or students, in this way creating some kind of virtual dialogue. In communicating with the student, the instructor should develop the feel-

ing of personal communication, of belonging. Instructors should use clear and somewhat colloquial language, write in a personal style, and appeal to the student's emotional as well as intellectual participation. The empathy of the instructor is, according to Holmberg, of particular importance. Empathy and personal approaches are thus considered guidelines for the presentation of learning matter in distance education.

SOME CRITICAL REMARKS

Although Holmberg's approach seems to be interesting and attractive, there are a number of observations to be made. First of all, there are considerable differences between teaching a face-to-face class and teaching in the distance education mode. Students—and sometimes instructors, too—face a transition from talking to writing, and from listening to reading about. This change may take time to get accustomed to. Many instructors, especially those new to e-learning, are better at explaining things orally than in writing. It may also be easier to show empathy and use colloquial language in a face-to-face situation than it is, for instance, online. Empathy, like spontaneity, cannot be produced on command. Many introverts have problems in expressing their feelings and sentiments, and this may be even more difficult in writing. It is, however, quite well possible to become better at written communication, to show more care and to be more approachable. As to the language used, a colloquial style may not fit every program, course, or instructional process. It is widely recognized that teaching advanced science using e-learning is not easy and needs not only special skills, but also a high degree of methodological thinking (Peters, 2000).

REFLECTIONS

The work of Holmberg, Rogers, and others is no longer new, but many of the critical issues they and others have raised continue to be relevant and pressing today. In the second part of this paper we let the students speak and we will see that, in their analysis of communication in distance learning environments, there are key issues that are underrepresented or missing in many e-learning environments. First, we very briefly discuss the support needs identified by students of three different universities (diploma courses) in an exploratory research study. This will be followed by the results of a follow-up study with students of three different universities. This study aimed at getting a better insight into the nature of the communication processes between the instructor and the student and the extent to which these communication processes conform with the expectations of Rogers and Holmberg, among others. After discussing the results of these studies we will make a number of recommendations to make online instruction more successful.

IDENTIFIED SUPPORT NEEDS IN DISTANCE EDUCATION

THE FIRST EXPLORATORY STUDY

In this study, students at a distance university in Hong Kong, one in South Africa, and a third one in England were asked to identify their needs for student support (Visser & Visser, 2000). The three identified needs areas were the following:

- *Cognitive communication and support.* Cognitive communication and support could be enhanced through instructional strategies such as collaborative learning and required participation in online activities and, if applicable, in face-to-face sessions according to the students.
- *Affective, motivational support.* Students indicated that they were looking for an integration of affective and cognitive support. Interest in the student as a person was considered to be important.
- *Communication strategies to ensure that students maintained involvement in the courses.* Strategies that reduce the isolation of the student and that encourage a partnership between students and between student and instructor are needed.

There were obviously cultural differences. The students in Hong Kong wanted the instructor to take more responsibility for the students' progress and eventual success. They suggested more contact, more feedback, and more monitoring of their progress. The South African students were, in general, less demanding. They were appreciative of the limited help that was offered, but would still welcome more personal involvement of the instructors. They were very positive about the research study, mentioning that they were honored that their voice was heard and as such felt that their problems—mainly dealing with lack of communication—would soon be solved. The students in England were generally satisfied, but expressed the feeling that more contact was needed between the instructor and the students, and that more emphasis should be placed on the student-student and student-instructor relationship.

This exploratory research clearly indicated the need for communication that would go beyond the traditional feedback and standard, often prescriptive, encouragement. The nature of the communication by the instructor, from a content perspective, was seen as important.

THE SECOND EXPLORATORY STUDY

In order to get to a better understanding of the importance of communication in distance learning environments, a further study was undertaken. This study sought to determine to what extent communication, or lack thereof, is an issue in distance learning and online programs, and to what degree there was, in the interaction between students and instructors, evidence of Rogers' three communication behaviors. Table 1 shows how these behaviors were operationalized.

The second study took place in 2001/2002 and involved two universities in the United States and one university in England. A total of 122 distance education students received a questionnaire with 32 open- and close-ended response questions. These questions focused on a variety of issues related to various dimensions of the communication process, including the nature, the quality, and the frequency of the interaction, and the extent to which students' expectations as to student support were met. The response rate on the questionnaires was 53% (Visser & Visser, 2001).

A summary of the study indicated that:

- Communication is considered important to very important by 82% of the students.
- Communication between instructors and students is, in 80% of the cases, initiated by the instructor. Students rarely took the initiative to be the first one to get in touch with the instructor.
- Less than two thirds (62%) of the students received timely information on how to contact fellow students. As a result, there was not much interaction between course participants in the first week of the course. However, once a "dialogue" between and

Table 1
Operationalization of Roger's Communication Behaviors

Open Disclosure	Warm Affirmation	Empathic Comprehension
Frankness & clarity	Positive feedback	Understanding of the student's situation (personal, professional, academic)
Initiating communication Two-way communication	Prompts and rapid feedback Reinforcement of the learning process	Confidence building
		Help with deadlines
		Confidence building
Information about self Interaction with students	Understanding of difficulties and challenges	Help with specific problems

among students got going, most of them engaged in it.

- Only 10% of the students did not contact their fellow students at all during the course.
- The speed of reply of the fellow students was better than that of the instructor.
- Most instructors provided some information about their professional/personal background. The nature of the information received was, however, considered to be less than in traditional learning situations and less personal.
- For four out of every five students (81%) the interaction between the instructor and the student was limited to twice a month.
- The bulk of communication between students and instructors took place by email. Instructors made limited use of other tools and technology available in many online teaching environments.
- Most students considered the quality of the communication more important than the frequency of the communication.
- Communication with fellow students is considered less important than communication with the tutor.
- Students on the whole felt quite comfortable to discuss academic

problems with their instructor. In contrast, only just over 10% of the students indicated that they felt free to approach the instructor with personal problems (e.g., financial or time management-related problems).

- Just over 60% of the students reported having had one or more instances of miscommunication with their instructor; miscommunication being defined as instances in which they felt that what they had attempted to convey had been misunderstood or misconstrued, or had resulted in a totally unexpected response.
- Half of the 40 students who reported having had some miscommunication with the instructor indicated that this had negatively affected their motivation. As a result of this occurrence, they had felt less inclined to get in touch with the instructor on subsequent occasions, felt insecure, and/or (temporarily) experienced a loss of motivation.

By contrasting the remarks made by students with key elements in Rogers' model, we can conclude that, although aspects of the disclosure, affirmation, and apprehension dimensions were present in the communication process with the students, there are evident and sometimes critical shortcomings in

the open, warm, and empathic components. In other words, there is a reasonable amount of communication going on, but it does not meet the expectations of the students in terms of the quality of the interaction and the degree of comfort and motivation provided. These are, therefore, the aspects that this study indicates have to be strengthened.

SUGGESTIONS TO MAKE THE MOST OF COMMUNICATING IN AN E-LEARNING ENVIRONMENT

Instructors and planners can address these shortcomings in the following practical ways:

- Provide training in the form of guidelines/handbooks/seminars to instructors and mentors on effective and efficient ways of communication, including guidelines on etiquette.
- Collect information on the expectations and the requirements of students.
- Offer a session or set an assignment at the beginning of the course that teaches students about the etiquette of communication.

- Make use of the full range of relevant communication possibilities in online courses such as chat rooms only if these provide meaningful interaction. Requirements for students just to make postings for the sake of having them "interact" are not conducive to the learning process and do not contribute to the students' satisfaction with the course.
- Do not copy the teaching style you use in a face-to-face classroom; use only those elements that enrich the e-learning environment.
- Make sure that communication serves to create a shared experience (active) rather than an experience that is shared (Schrage, 1991).
- Consider language as more than a tool for communication; use it as a tool for collaboration
- In the formative feedback of the course, include concrete elements that assess the quality/frequency of communication and students' perception of these elements.

CONCLUDING REMARKS

Effective communication is results-based and requires careful and profound reflection on how, when, and what to communicate. Interactive technologies can greatly increase the possibilities for personalized dialogue and for active participation in learning processes. E-mail messages, newsletters, telephone meetings, and computer conferencing can be very effective to enrich the learning process and to increase students' (and instructors') pleasure in doing a course. A "just in time" personal note to a student can do wonders. The dedicated and caring instructor should make sure that all available communication means are used effectively to increase the quality of the learning and teaching environment. Awareness of the opportunities that adequate communication processes offer to enhance the e-learning environment will, in an important way, contribute to bringing about deep and meaningful learning.

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Qualitative Evaluation of Facilitators' Contributions to Online Professional Development

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The Florida Online Reading Professional Development program (FOR-PD) is funded by the Florida Department of Education and is housed at the University of Central Florida (UCF). FOR-PD is an online staff development project designed to help teachers improve reading instruction for learners in grades preK-12. As indicated in the Request for Pro-posal (RFP) from the Florida Department of Education, for example, "feedback and leader-peer response" and "monitoring of assignments" were considered essential. In response to the RFP, the UCF proposal for FOR-PD high-lighted the role of facilitators, assert-ing in the grant proposal text, "Feedback by facilitators is critical to the performance of participants."

Prior research (Berge, 1996; Davie, 1997; Harasim, Hiltz, Teles, & Turoff, 1996; Hiltz, 1995; Kimball, 1995; Lieblein, 2000; Riel, 1996; Spitzer, Wedding, & DiMauro, 1996) has emphasized facilitators' roles in online education or training courses, "facilitating online dia-logue, community, and ultimately, education" (Collison, Elbaum, Haavind, & Tinker, 2000).

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RECRUITING FACILITATORS

We relied on three core criteria for selecting facilitators for FOR-PD. First, the facilitator needed to have strong content knowledge in reading. Second, we sought online facilitators who had experience as literacy leaders and literacy experts. Third, we looked for facilitators who expressed desire to learn along with us about helping preK-12 teachers develop their reading knowledge and expertise. Given the novelty of this large-scale high profile state online project, prior experience with the Internet was not mandatory. However, we knew that some facilitators were reasonably comfortable with online education since they had been involved in it before as students or facilitators.

FOR-PD FACILITATORS

FOR-PD facilitators play a vital role in developing and maintaining an online professional development program that is effective, efficient, and supports the realization of the FOR-PD project objectives. The primary purpose of a FOR-PD facilitator is to interact with FOR-PD course participants. This translates to encouraging and replying to e-mail messages and discussion postings, providing feedback on assignments, and being the "point person" for answering their questions. They must also be responsive to individual district requests and needs.

A facilitator in the online environment must possess a unique set of skills to perform effectively. Some of the basic criteria for a person to be successful as an online facilitator include the following:

- Facilitators must be able to create a supportive environment in which all students feel comfortable participating and especially where students know that their facilitator is accessible.
- Facilitators should give students timely quality feedback on student contributions to discussions, assignments, and quizzes.
- Facilitators should keep students advised of their progress respect to the course evaluation process on a regular basis
- Facilitators should feel comfortable communicating in writing.

The face-to-face contact traditionally available in a classroom setting is not available in the online learning process. The ability to verbally communicate is replaced with a keyboard. Facilitators must be comfortable communicating in writing because that is the fundamental process of online learning. The facilitator is the primary person participants interact with who provides the human factor.

- Facilitators should be experienced and well trained in online learning. This includes sending and receiving email, using discussion boards, using chat tools, and using a Web browser.

FACILITATOR TRAINING AND CERTIFICATION COURSE

To become a certified FOR-PD facilitator, interested educators must complete an online application and possess the following qualifications: (1) successful completion (80% mastery or above) of the FOR-PD course; (2) a minimum of three years teaching experience; (3) master's degree in reading or other related areas; (4) advanced knowledge of research-based reading strategies; (5) ability to provide explicit instruction in the following elements of reading as they apply to appropriate grades: phonemic awareness, phonics, fluency, vocabulary, and comprehension; (6) ability to systematically use effective reading strategies that have been tested and have a record of success; and (7) identified by school or district as a reading/literacy leader. In addition to these requirements, successful completion of the FOR-PD Facilitator Training and Certification Course is also required. The FOR-PD Facilitator Training and Certification Course is a 25-hour online professional development course

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intended to ensure that our facilitators have the knowledge and skills they need to become successful online class facilitators for the Florida Online Reading Professional Development Course. The course consists of the five lessons that encompass an introduction to FOR-PD, details about the project and goals of FOR-PD, information on online learning, and support options to facilitators.

Following completion of the FOR-PD Facilitator Training and Certification Course, facilitators are expected to demonstrate mastery of the following skills: (1) describe the FOR-PD course and the goals of the course; (2) identify advantages of online learning; 3) identify potential disadvantages of online learning and describe at least one way each disadvantage can be addressed; (4) identify the role of the online class facilitator; (5) describe techniques for facilitating an online course; and (6) identify and use online tools such as chat, discussion boards, e-mail, and grade books.

There is no charge to take the FOR-PD Facilitator Training and Certification Course. An electronic certificate (pdf) is emailed to participants upon successful completion, their district staff development office is notified, and they are then added to the pool of certified FOR-PD facilitators. Completion of the FOR-PD Facilitator Training and Certification course and certification as a FOR-PD facilitator does not guarantee employment as a facilitator. For the most part, facilitators are selected by school districts from the pool of qualified facilitators. Many school districts have a "favorite" facilitator or two who they assign to facilitate again and again. These are generally reading specialists, reading coaches, or literacy leaders in the district with particular knowledge of the unique qualities of the district, its reading programs, teachers, and student population.

FACILITATOR SUPPORT VIA FACILITATOR FORUM

Housed on the FOR-PD course server, the Facilitator Forum is a series of discussion boards offering 24/7 access for facilitators to interact with each other to share information and ideas about the FOR-PD course, to ask for help from others, and to share successes. Specific discussion areas include a place to meet fellow facilitators; to ask for and offer help, hints, and advice; to make suggestions; and to share success stories. The Facilitator Coffeehouse discussion board enables facilitators to interact with each other on matters unrelated to the FOR-PD course, but likely to be of general interest. Finally, there is a discussion area specifically for facilitators to discuss issues related to each of the 14 FOR-PD lessons.

QUALITATIVE EVALUATION ON FACILITATORS' FORUM

The outside interim report of the first year of the FOR-PD project and course, drawn from various sources including narrative reports from facilitators, surveys of participants at the end of the course, and follow-up telephone interviews with administrators, reported the following:

- Over 87% of FOR-PD participants indicated they would make changes and/or additions to classroom reading instruction as a result of FOR-PD.
- Over 90% (93%) of participants indicated that the value of reading strategies introduced in FOR-PD was excellent or good.
- Approximately 97% of participants indicated FOR-PD was excellent or good in covering the state and national reading initiatives, with nearly three-fourths of participants (73%) indicating

FOR-PD covered the reading initiatives to an excellent degree.
- Over 90% of participants indicated that FOR-PD has contributed to their knowledge of effective reading theory, research, and instructional practice to an excellent or good extent. The extent FOR-PD contributed to understanding student needs and instructional adaptations for struggling readers to an excellent or good extent was 89% with over one half indicating excellent (52%).
- Over 90% of participants rated the support from their facilitator as excellent (74%) or good (17%).

For the purpose of the qualitative evaluation of FOR-PD in phase II of the project, internal and external documents were reviewed. Hundreds of pages of qualitative data were collected and analyzed from the discussion boards of facilitators, with a focus on what contributions FOR-PD facilitators have made to the program, how they have experienced the program and, particularly, how they like the changes and revision of the FOR-PD course since summer 2003.

EVALUATION METHODS

The site and major data source for the current qualitative evaluation was the facilitators' discussion board postings from September 2003. There were 161 postings as of December 31, 2003, including topics such as: meeting peer facilitators and introducing their backgrounds; making comments; extending greetings to each other for the new (fall) semester 2003; offering help, hints, and advice; sharing success stories of FOR-PD participant learning; providing suggestions the FOR-PD facilitators' electronic newsletters; providing general ideas and suggestions; posting messages related or unrelated to FOR-PD course; and

discussing Lesson 1 to Lesson 14. The data used for the evaluation consisted of 120 messages posted by the facilitators out of the total of 161 on the discussion board since the beginning of phase 2. As the major source of data for the present evaluation, facilitators' discussion board met some requirements of the RFP and a few focuses indicated in the UCF proposal for FOR-PD.

Robert Yin's (1994) case study method was used for the design of this qualitative evaluation and one of its dominant modes, the combination of "pattern-matching" and "time-series analysis" was applied to analyze and explain facilitators' perceptions and experiences of FOR-PD. Moreover, with the qualitative software Nvivo Revision [1.3], automatic coding of the data was used in addition to hand coding, and various codes were developed.

FINDINGS

From the facilitators' discussion board postings, two major categories emerged, messages conveying facilitators' comments and messages conveying facilitators' activities. Meanwhile, the frequency of postings on the discussion board varied largely from month to month at different data points: September, October, November, and December. As Table 1 shows, of the total 161 posts including coordinator or instructor's messages, there are 95 more in the first half of the semester (September and October) than the latter half (November and December).

FACILITATORS' COMMENTS

Operationally, "encouragement" included expressions like "look forward to new session," "like the changes since summer," "learn a lot" from FOR-PD, and so on, while "criticism" connoted "frustrating about participants who dropped out," "unavailable assistance," and

Table 1
Monthly Posts in Facilitators' Discussion Board Phase 2

Month	Number of Posts
September	89
October	39
November	20
December	13

Table 2
Monthly Posts of Comments in Facilitators' Discussion Board Phase 2

	Comments	
	Encouragement	Criticism
September	50	8
October	7	7
November	2	0
December	1	0

so on. In terms of comments (see Table 2), the first half of the semester had a contrastingly larger amount of "encouragement" from facilitators than the latter half of the semester, with a ratio of 57 to 3. Likewise, 15 negative messages appeared in the first half, while none in the latter half. In general, there were many more "encouragement" messages than "criticism" messages during the whole section.

"Encouragement" messages were divided into six categories (Table 3). Specifically, many facilitators expressed cheerfulness, looked forward to new session, and liked the changes of layout and content since summer.

Following are quotes identified and extracted from the discussion board for "encouragement" messages from facilitators.

The summer course design was SO much easier to manage. I just wish that more teachers would take advantage of this wonderful opportunity.

I took the FOR-PD course as a student last fall and was impressed … I found that the FOR-PD course offered that and a window to the ever-changing legislative directives. The more I learn the more I can share with my students, teachers and parents.

I truly enjoy the notes I've received from course participants sharing how they've used strategies from the FOR-PD course in their classrooms. It's exciting to be a part of the process of having EVERY teacher become a reading teacher!"

Table 3 also shows that, through the whole course, there were 15 messages in which facilitators provided "criticism," all of which appeared in the first half of semester. Some conveyed facilitators' confusion and frustration over technical problems, including those that might be caused by the change since summer, or facilitators' uneasiness about participants' low completion rate. As one facilitator noted, "It's been frustrating because of par-

Table 3
Facilitators' Comments in the Discussion Board in Phase II

Facilitators' Comments	Sept.	Oct.	Nov.	Dec.
Encouragement				
look forward to new session and like the changes, including the scoring rubric	X	X		X
enjoy being a facilitator, and show pride in completion rate	X	X		
like FOR-PD course	X			
appreciate facilitator discussion boards	X	X		
Identify with participants' encouragement	X			
share influence of for-pd course in both schools and families, something beyond participants' learning	X	X	X	
Total monthly number	50	7	2	1
Criticism				
frustration over participants' low completion rate	X			
complaints/confusion about technical problems, some caused by the changes in the new session	X	X		
empathy with participants' frustration over assistance from FOR-PD project staff, such as help desk	X	X		
Total monthly number	8	7	0	0

Table 4
Facilitators' Activities in the Discussion Board in Phase 2

Facilitator's Activities	Sept.	Oct.	Nov.	Dec.
ask for information; seeking help including how they could solve problems for participants'	X	X	X	X
report to FOR-PD UCF program coordinator and discuss with peer facilitators about technical, administrative and content problems and errors in different aspects, including access to quizzes and participants' course pacing.	X	X	X	X
respond/give suggestions to questions from peer facilitators	X	X	X	X
Total monthly number	27	16	11	7

ticipants who didn't complete." Moreover, a few facilitators expressed they could not reach administrative and technical support, such as the help desk.

FACILITATORS' ACTIVITIES AND CONTRIBUTIONS

One great use of the discussion forum was to ask for help, report to the FOR-PD program coordinator about problems and errors, and respond to or give suggestions to questions raised by other peer facilitators (see Table 4). Facilitators' posts of activities, similar to their comments, were posted more frequently in the first half of the semester than in the latter half, with a ratio of 43 to 18.

An example of a comment from a facilitator asking for information or seeking help, including how they could solve problems for participants, follows:

> Could you please send me more brochures? I want to share them with the faculty again. Some people have shown an interest in taking the course. Is it possible for someone to sign up now for the fall course?

Following is a series of posts concerning accessing quizzes which

provides an example of reporting correspondence with FOR-PD UCF program coordinator and discussion with peer facilitators about problems and errors:

I have a participant that can not access quiz 3. I have called the help desk, she has called the help desk, I have tried her in every way that I can. She has submitted lesson 2's quizzes and they have been graded. She still cannot access the quizzes. Now she is considering dropping from FOR-PD. What can I do? We can't figure out why she can't access the quizzes. The Help Desk sees no reason why she couldn't access the quizzes. I am at a loss!!!!

Has she done all the quizzes prior to Lesson 3 and the pre-course survey and have grades been posted for all? I do know that it will not let you skip a quiz. Has she tried to use another computer, some of my participants are having difficulties with their school computers.

I had a participant who couldn't do the quizzes because the pop-ups were turned off on her computer. That's yet another thing to check.

RECOMMENDATIONS

The findings from the facilitators' discussion board showed several ongoing problems in the FOR-PD program. Following are a few recommendations to address them and a couple of suggestions for the final qualitative evaluation of FOR-PD program.

The help desk currently has a goal of addressing and resolving technical problems within a 24-hour period. Careful attention to continuing quick response should be monitored to ensure efficient and effective support in response to problems encountered by FOR-PD facilitators and participants.

Facilitators should not only be updated and familiarized before changes are made in the FOR-PD system to ensure they are comfortable with and understand how the changes will impact the course and can thereby be more effective in assisting participants, but they should also be reminded about the changes—for example, the changes of access to quizzes caused some confusion with facilitators.

While FOR-PD has been overall effective in using the online system, various technical problems have been frustrating to some participants and facilitators, which may or may not have been problems within FOR-PD itself. It is suggested that attention to improving the technical aspects of FOR-PD and researching and implementing ways to make the technology more user-friendly should be continued.

To understand the factors that have an impact on FOR-PD better, additional qualitative analyses should be conducted including telephone/online interviews and/or focus groups with five key audiences: school districts, participants, facilitators, Florida Department of Education staff, and FOR-PD content contributors or course designers/instructors.

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Book Review

Don Olcott, Jr.

Reflections on Research, Faculty and Leadership in Distance Education, by Michael F. Beaudoin (Ed.).
(Oldenburg, Germany: Bibliotheks- und Informationssystem der Carl von Ossietzky University,
2004, 141 pages, ISBN: 3-8142-0905-2, softcover)

*R*eflections on Research, Faculty
and Leadership in Distance
Education, by Michael Beau-
doin, is a mandatory, prerequisite
resource for any practitioner,
researcher, faculty member, and
technology manager who is reflect-
ing on his or her role in distance
education theory and practice.
Whether you are new to the field or
are an experienced distance educa-
tion practitioner, this book is a five-
star read that will provide you with
the philosophical and practical base
to reflect on your own view of the

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field, your work, and the future of
distance education in higher educa-
tion.

Beaudoin draws on his distin-
guished career of over 2 decades in
serving as a distance education
leader, program manager, writer,
presenter, faculty member,
researcher, and theorist in the field.
Moreover, he has adapted a unique
and innovative approach to examin-
ing a range of critical issues facing
the field by reviewing various arti-
cles on distance education practice,
theory, and research that were pub-
lished since 1991 to determine if this
literature is still relevant today and
how (or if) it provides direction and
vision to the next evolution of the
field. Beaudoin draws on literature
that focused on the state of research
practice, the changing roles of fac-
ulty, and the status of leadership in
the field.

At a time when the "mainstream-
ing" of distance education with
campus instruction is pervasive
across higher education, Beaudoin
takes a calculated risk in today's
ubiquitous information and tech-
nology age to suggest that distance
education researchers, practitioners,
and leaders must pause and reflect
on the field, where it's been, where
it's going and how we are going to
get there. He asks some very candid
questions:

- Where is the literature on "lead-
  ership" in distance education?
  Do we, in fact, know very much
  about effective leadership in dis-
  tance education and the skills
  and attributes that the next gen-
  eration of leaders will need to
  move the field forward?
- In an era of unprecedented infor-
  mation and research via the Web,
  is research that was conducted 5
  years ago obsolete and irrelevant
  to today's distance education
  environment?
- Have faculty roles changed due
  to technology adoption and/or
  have faculty roles changed
  because our views and philo-
  sophical basis for what consti-
  tutes effective teaching and
  learning changed? Or both?
- Given the accelerated access to
  information, research, and other
  resources, is the quality and pre-
  cision of today's distance educa-
  tion research lacking in terms of
  methodological and assessment
  approaches?
- Has the distance education field
  made a critical error in viewing
  distance learning as synonymous
  with "online teaching and learn-
  ing" only? We have been combin-
  ing technologies in course
  delivery for decades, yet today
  we throw around words like

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"blended learning" as if we have created this in the past 5 years.

Distance education is at a crossroads. Beaudoin has insightfully accentuated this point in his book. In many ways he points out what Yogi Berra told us about leadership and change … if you don't know where you're going, you're going to end up somewhere else. As the reviewer of this book, I can dispense with "politically correct" jargon and summarize Beaudoin's major points below.

First, the field of distance education does not know where it's going. Perhaps more disconcerting is that the current generation of practitioners and researchers has a simplistic and irreverent view of previous work and research conducted in the field.

Second, visionary leadership is absent from the field. There's not just a void in the leadership continuum, but the field has failed to draw on the exponential research and practice on leadership in general to formulate guiding assumptions for leadership in distance education. Today, everyone and no one is a leader in distance education. In the absence of genuine leadership, people will listen to whoever will step up to the microphone or, in our case, the research journal, the next keynoter, or the next wordsmith who has a new version of an old concept such as "blended learn-

ing." Distance learning, distance education, distributed learning, online learning, and the hits just keep on coming. We can't even make up our minds as to what to call our field.

Third, today's researchers in the field need to seriously get back to basics. Perhaps most fundamentally, they need to review their literature. I serve on a number of prestigious editorial boards and am mystified to read manuscripts that do not even mention critical research on their particular topic that was done in the past decade by prominent researchers across the globe. This predisposition with "we get to redefine and start all over" because we are the Web generation is doing a disservice to the field and to our colleagues who have contributed to the theory, practice, research, and assessment of distance education.

At a recent conference, a very distinguished faculty member told me that the roles of our best teachers are constantly changing and this was true long before the advent of technology. The best teachers, by nature, are innovative and creative and always searching for better ways to teach, better ways for students to learn, and better ways to measure and assess the degree to which the teaching has produced the learning. Perhaps viewed from another perspective, technology does not make average teachers good teachers … it makes good

teachers great teachers and facilitators.

In summary, I applaud Beaudoin for this exemplary piece of work that should be read by every professional in the field. And, this is not because he has all the answers or solutions or because the book is receiving numerous awards for scholarship. In fact, this book's very admission that the field is not addressing these critical issues and is not formulating new leaders and visions, is not creating new transition models for faculty roles, and has not established new standards for research is the book's inherent value. More important, this book does not underscore the important contributions and successes of the field. Beaudoin has provided a thoughtful and illuminating expose of the field in 2004. He, like most us, would like to ensure that the future leaders of distance education are still writing about the contributions of distance education to higher education in 2024. The choice is ours.

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Dimensions of a Comprehensive Needs Assessment

Ryan Watkins

Within most traditional problem-solving frameworks, practical decision making starts with either a formal or informal assessment of "needs." These initial assessment processes are the preliminary steps in determining the performance criteria by which alternative solutions can later be evaluated and selected. To facilitate this critical

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step in problem solving, needs assessments typically identify and prioritize discrepancies between the current and desired accomplishments. And these assessments are most valuable when you define "needs" solely as the gap between what results should be accomplished and what results are currently being accomplished without discussion of disparities in resources, inputs, processes, or other means.

In organizational practice, however, needs assessments are often informally skirted when organizations immediately respond to a request (for example, "we need xyz training program," "I need a new computer," or "we need more distance education courses") with either a causal analysis or a course development process while the yet-unverified need continues to be assumed as a performance problem.

By assuming, and neither measuring or validating that the "need" identified in the request is actually a reflection of a discrepancy between the results that are expected to be achieved and those currently being achieved, the prob-

lem-solving and decision-making processes begin without adequate justification. Not only may the "need" be exaggerated, misunderstood, or miscommunicated, the "need" may actually be a strength or asset when measured. But without a systematic assessment process, the assumed "need" drives decision-making rather than allowing for measurable evidence and clear criteria to be the drivers for a successful intervention.

As a result, a comprehensive and systematic needs assessment process is necessary for practical decision making. Comprehensive assessments are defined on multiple dimensions, including a first dimension that requires that the assessment collect evidence that includes both hard and soft data; hard data being those that are independently verifiable and soft data being those that are not independently verifiable. For the assessment process, this distinction of data (rather than the traditional qualitative and quantitative differentiation) is of greater value, since it is the ability to validate the data that is essential to making good decisions (more so than the tools

and techniques used to classify the data).

A second dimension for a comprehensive assessment is that it must address results at three levels of focus: societal, organizational, and individual/small group. At the societal level the assessment focuses on the *outcomes* and contributions of the organization to the community at large (i.e., clients, clients' clients, and others). The organizational level of a comprehensive assessment examines the *outputs* of the organization, and at the individual/small group level the assessment observes the distinct *products* of individuals or teams (Kaufman, Oakley-Brown, Watkins, & Leigh, 2003). Only when all three levels of results have been included in the assessment can problem-solving processes adequately align the types of results to be accomplished with the distinct beneficiaries of those results.

A third dimension is the comparative relationship of the current results being accomplished (i.e., What Is) with those that desired or required (i.e., What Should Be). This relationship of results is essential for identifying discrepancies and ties the assessment process to the long-term strategic directions of the organization. By collecting data during the assessment that addresses both the current achievements and the necessary achievements for long-term success, the assessment's data can be most valuable during decision-making (specifically, providing the required data for the next three dimensions of comprehensive assessment).

A fourth dimension of comprehensive assessments is the inclusion of both needs and strengths in the analysis of data. By comparing data collected with regards to the results that should be accomplished with the data concerning what results are be achieved, the assessment can define both the strengths and the needs of the organization. When the desired or required results are greater than those currently being achieved, then a "need" exists. Likewise, when the desired or required results are being achieved (i.e., the data regarding "What Is" are equal to greater than the data regarding "What Should Be"), then a "strength" has been identified.

By identifying both needs and strengths in the single assessment, decision-makers can better determine how to prioritize resources.

Many strengths can be leveraged to help close needs. Some strengths may be maintained and monitored, just as some needs will be monitored and closed at a later time. In any case, having the availability of data for comparing data regarding the current accomplishments and future requirements is valuable to most any problem solving process.

A fifth dimension of a comprehensive assessment that supports useful decision-making is identifying the spread of data between What Should Be and What Is. The greater the differential between data supporting these two states (i.e., future requirements and current accomplishments) then the more attention decision makers should likely pay to the associated strength or need. This isn't to say that strengths or needs defined by small discrepancies are any less important the those defined by larger differences, but the size of the strength or need as defined by the data from the assessment should be included in the analysis of the data as a key variable in a problem-solving process.

The final dimension of a comprehensive needs assessment is the prioritization of a strength or need as defined by its relative position to other strengths or needs. For example, if an assessment included survey data from employees (identifying perceived discrepancies in results) on a Likert-type scale, and responses indicated that there was a need with regards to customer service support with an average What Is score of 1 and a What Should Be score of 3; And the survey indicated that employees perceived another need with technical support, scoring What Is at 3 on average and What Should Be at 5. Then, in problem solving, decision-makers may want to consider that employees view the size (or spread) of the needs as roughly equal (2 points on a Likert-type scale),

Table 1
Six Dimensions of a Comprehensive Assessment

Dimension	Characteristics
Data verification	Hard and Soft (i.e., externally verifiable and not externally verifiable)
Results focus	Outcomes/Societal, Outputs/Organizational, and Products/Individual
Comparative	What Should Be (i.e., desired or required) and What Is (i.e., current)
Needs and strengths	Relationship of data regarding What Should Be and What Is
Spread	Size of the discrepancy between What Should Be and What Is
Perceived priorities	Relative relationship of strength or need to others identified during data analysis

although they perceive that the need related to technical support is more critical given its higher position on the scale relative to the customer service support need.

By collecting and analyzing data along all six dimensions of comprehensive needs assessment, the assessment process can better support valid and useful decision-making. A dual-matrix assessment design (with data being collected for both What Should Be and What Is) is one way to develop assessments that are capable of supporting these six dimensions (see Kaufman, Watkins, & Leigh, 2001).

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A Funny Thing Happened on the Way to the Distance Learning Research Forum

Don Olcott, Jr.

T he Canadian Association for Distance Education (CADE) held its annual conference this year in Vancouver, British Columbia, in early May. I was invited to serve on a panel for the Canadian Institute for Distance Education Research preconference seminar on research in distance education as part of the CADE meeting.

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The panel topic was titled "Research Views from Over There" and was designed to provide participants with an international flavor of the challenges facing distance learning researchers and practitioners. The other invited panelists were internationally known in the field and included Christine von Prummer, Fernuniversitat, Germany; Morten Paulsen, NKI, Norway; and Asha Kanwar, Commonwealth of Learning (COL), Vancouver (Canada).

The general charge to the panel was to provide a status report on distance learning research in our respective countries and to discuss challenges for future research. I was not sure how to approach the topic and presumed (incorrectly) that the diversity of the panel members from their respective countries would result in a panel discussion that accentuated the differences more than the similarities for distance learning researchers. So my first task was readily apparent … I needed to talk to some U.S. researchers and experts and find out just what challenges were facing researchers.

I called a number of my colleagues from across the United States and just took notes on their insights about research in the field. I next talked extensively with Dr. Michael Moore, director of *The American Center for the Study of Distance Education and* editor of *The American Journal of Distance Education.* The center and AJDE are housed at Penn State University, a leader in distance education nationally and internationally. There were many similarities among this group and the issues they identified around research in distance education. Finally, in my preparation, I had just finishing reviewing *Reflections on Research, Faculty and Leadership in Distance Education* by Dr. Michael F. Beaudoin for the *International Review of Research in Open and Distance Learning* (IRRODL).

I had done my homework, infused my own observations, gathered up my resources and headed for Vancouver to engage in this unique discussion of distance learning research with my international colleagues fully expecting that the similarities that emerged from my U.S. colleagues would

give way to diverse and varied differences the day of the panel. The only thing I forgot was to heed my own advice, expect the unexpected.

The following is an annotated summary of the keys issues that I discussed in my presentation. Moreover, although there was some variance among panelists, the data I had gathered from my U.S. colleagues, and from Michael Beaudoin's book, the common similarities from all three sources was illuminating.

WHERE HAVE ALL THE LITERATURE REVIEWS GONE?

Today's researchers in the field need to seriously get back to basics. More fundamentally, they need to review the literature. There appears to be a growing indifference to connecting research with previous knowledge in the field derived from empirical inquiry. Beaudoin suggests in his book that today's researchers view any research over five years old as obsolete. Paradoxically, the online revolution has also created a void in this process. There seems to be a predisposition by today's researchers with "we get to redefine and start all over" because we are the Web generation which, in effect, is doing a disservice to our colleagues across the globe who have contributed to the theory, practice, research, and assessment of distance education. The current generation of researchers has a simplistic and irreverent view of previous work and research conducted in the field.

THE LEADERSHIP ENIGMA

Visionary leadership is absent from the field. And, there is minimal research on leadership in the literature. There's not just a void in the leadership continuum, but the field has failed to draw on the exponential research and practice on leadership in general to formulate guiding assumptions for leadership in distance education. Today, everyone and no one is a leader in distance education. In the absence of genuine leadership, people will listen to whoever will step up to the microphone, or in our case, the research journal, the next keynoter, or the next wordsmith who has a new version of an old concept such as "blended learning." Distance learning, distance education, distributed learning, online learning, and the hits just keep on coming. We can't even make up our minds what to call our field.

A KODAK MOMENT

The majority of distance learning research still focuses on "snapshot" approaches that study distance learning for a short period of time (e.g., academic quarter, 3-day training seminar, etc.). This, in and of itself, is not necessarily a limitation. The problem lies in overgeneralizing the generalization of results. In other words, researchers are extrapolating their results from a mini-study and inferring these results to a broader macro view of distance education. This is perplexing given the inherent challenge of controlling all extraneous variables in a research design. Differences in delivery environments, attributes of faculty, different uses of technologies, and others make inferences from a short-term study limited at best.

This raises one more methodological issue. Given the preponderance of short-term, snapshot research, the field seems to have marginalized the importance of replication studies of previous research. These are powerful affirmations of our field and coupled with more longitudinal research designs would enhance the quality, precision, and generation of results of distance education research.

DISTANCE LEARNING AND ECONOMIC DEVELOPMENT

The global marketplace is changing from a supply-driven to a demand-driven economy. For many developed and developing countries, distance education is becoming a global economic and political strategy. The exponential increase in the use of distance education to provide workforce training, deliver professional development, and educate and inform the masses accentuates this pivotal role for distance education. As this trend increases, the field will need more "models" for using distance learning as an economic development strategy that can be shared with nations developing their human and workforce potential.

DEMYSTIFYING FACE-TO-FACE VERSUS DISTANCE EDUCATION

This somewhat adversarial, misguided approach to assure quality in distance education has run its course. We need to replace this obsolete message with a new message: face-to-face and distance learning are mutually reinforcing learning interventions. When misinformed politicians, resistant faculty, and institutional administrators who have not had a creative leadership idea of late approach distance learning, they simply fall back on the adage that distance learning is inferior teaching and learning compared to traditional, face-to-face instruction. Did they ever think that the quality and pedagogical effectiveness of what goes on in traditional classrooms might be pretty

poor examples/models for aspiring teachers and trainers?

As the mainstreaming of campus and distance education continues across education globally, the gap between face-to-face and distance will disappear. As it does, it will be replaced with a simple message that we should have been focusing on 20 years ago: what constitutes effective teaching and learning regardless of where, how, through what technologies and at what pace it is delivered.

THE MILLENNIALS AND MULTITASKING

Today's K-16 youth generation is technologically literate and technologically cultured. They view technology as common and natural as my generation viewed the typewriter and pencil. Moreover, they engage in multitasking (working on the computer, listening to music, talking on their mobile phones simultaneously) much more comfortably than do members of the baby-boomer generation.

We have very little research on the implications for effective learning influenced by multi-tasking. We know virtually nothing about the multi-tasking characteristics of distance learners or traditional face-to-face learners and, in fact, we know very little about the effects of multi-tasking on learning in general. This will be a growing area for future research and will have significant implications for how we organize, structure, communicate, and share information with the millennial generation.

In summary, here are some of the key issues for distance learning researchers and the field that were discussed in this panel, identified by my U.S. colleagues, and written about in Michael Beaudoin's book.

- Distance learning research needs to get back to basics. This includes more thorough and comprehensive literature reviews, more objective inferences about the generalization of results, and advocating the importance and credibility of replications studies.
- Distance learning research needs to focus on leadership in all its enigmatic and varied forms. We need to develop and articulate visions for the field that cross boundaries and are not just the latest hot topic keynote. Moreover, we need more research on the attributes of effective distance education leaders including a serious look at leadership differences among women and men. Women have generally been very successful in the tech-

nology-related professions and we need further empirical studies on this phenomenon.
- The field needs to dispense with the face-to-face versus distance education dichotomy, period. We must focus on what constitutes effective teaching and learning and focus less on technology.
- The field needs practical models of how distance education is increasingly becoming a strategy and tool for economic development. This body of knowledge will provide developing nations with "alternatives" to consider for education and workforce initiatives.
- What can the millennial generation teach us about teaching? What can they teach us about learning? What can they teach us about multi-tasking? More research, more research, and simply more research.

As this experience taught me, distance learning researchers and practitioners have a lot more in common and are facing many of the same challenges across the globe. Perhaps my own misperceptions contributed to my surprise at the similarities. Indeed, a funny thing did happen on the way to the research forum.

Technology Plans and Distance Education

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Most have heard about, and some have read, the U.S. Department of Education's National Educational Technology Plan, titled "Toward a New Golden Age In America Education" (http://www.ed.gov/about/offices/list/os/technology/plan/2004/plan.pdf). If you have not obtained a copy, you should. Actually, it is not bad reading.

One recurring theme of this plan is the importance today and in the future of distance education/e-learning/virtual schools. According to the report,

About 25% of all K-12 public schools now offer some form of e-learning or virtual school instruction. Within the next decade every state and most schools will be doing so … traditional schools are turning to distance education to expand offerings for students and increase professional development opportunities for teachers. (p. 34)

The report goes on to list and explain seven major recommendations. These seven are:

1. Strengthen Leadership
2. Consider Innovative Budgeting
3. Improve Teacher Training
4. Support E-Learning and Virtual Schools
5. Encourage Broadband Access
6. Move Toward Digital Content
7. Integrate Data Systems

The plan's 46 pages are supplemented by lists of federal activities that support the use of technology in education.

It is interesting that this plan often identifies some aspect of distance education as critical to the future of education. Virtual schools are given special attention as important to the future of American education. It is also significant that the importance of leadership is stressed in the Plan and is the first of the seven recommendations. It is implied that, without enlightened leaders, effective technology implementation will not occur, and without technology schools will continue to fail.

The Plan is a starting point. Schools and organizations might use the Plan as they develop their own strategy for encouraging e-learning and distance education. Certainly, more specifics and clear direction for implementation than found in the USDE Plan would be needed.

Distance education has become mainstream—widely practiced, generally understood, and critically important. Distance teaching and learning are innovations, even today, although these two components of distance education are soon to become regular and expected aspects of education. Our field must now live up to this long sought after importance.

And finally, in this era of grading and rating schools, it is obvious that the school that does not include instructional technology and distance education in its vision for the future and its planning for today is a school that is outdated and out of touch—a school that is failing.