A Distance Education Reader:

Insights for Teachers and Students

Brent Muirhead
Author

Brent Muirhead D.Min., Ph.D.
Lead Faculty, Area Chair
GBAM Business Communications (Atlanta, GA)
University of Phoenix

Senior Editor of Online Learning:
International Journal of Instructional Technology & Distance Learning

Associate Editor:
Educational Technology & Society

Visiting Research Fellow:
The Robert Gordon University, Aberdeen, Scotland (2003)

International Journal of Instructional Technology and Distance Learning
ISSN 1550-6908

Table of Contents

Table of Contents
(continued)

Introduction

The e-book reflects a portion of the author's work in distance education during the past five years. It is a book of readings that is designed to provide relevant assistance to online teachers and students who are striving to do their best in this exciting new educational arena.

The author has extensive experience in distance education as a student, teacher, area chair of curriculum and technology, journal editor, writer and mentor of new instructors and doctoral dissertation students. These experiences have provided numerous opportunities to study distance education from a diversity of perspectives. The author works for the University of Phoenix in their online degree programs and at their local campuses in Atlanta, Georgia.

Passion

"There are many things in life that will catch your eye, But only a few will catch your heart...pursue those"

Successories

The author's second doctoral dissertation involved the study of interactivity (communication, participation and feedback) in graduate online classes. Therefore, it should not be surprising to notice an underlying theme of interactivity which runs throughout many of the articles.

Contemporary online instructors continue to experiment with ways to make their classes more personal and intellectually stimulating for their students. The e-book reflects the author's intent to make information and knowledge accessible to educators and students. The e-book is divided into three major parts and according to their year of publication:

Part 1 Literature and Research

Part 2 Professional Training for Faculty for the Online Environment

Part 3 Advice for Online Students

The first part establishes a foundation for the e-book by discussing vital research issues in distance education, gleaning essential knowledge from the literature and suggestions for future research projects.

Part 2 places an emphasis on preparing teachers to be effective online instructors who cultivate dynamic dialogs and promote intellectually challenging course work. Students long for significant learning experiences that enrich their professional and personal lives.

An article on ethics is included in this section because educators and administrators are not immune from negative social trends and need to be reminded about the importance of integrity. Part 3 reflects a focus on student distance education issues.

Students appreciate concise and practical advice as they learn to manage assignments in a more independent educational setting.

The author wants to thank his wife Karen and daughter Holly for their wonderful support and encouragement during my writing projects. Also, Dr. Donald Perrin (Executive Editor) and Dr. Muhammad Betz deserve a hearty thank you for providing excellent writing advice.

Part 1

Literature and Research

Online Education: Innovative & Personal

Brent Muirhead

Muirhead, B. (2004). "Editorial: Online education: Innovative & personal." International Journal of Instructional Technology and Distance Learning, 1 (12), 1-2. Available: http://www.itdl.org

Distance education has demonstrated remarkable growth in student enrollment in the for-profit higher education institutions. Currently, the University of Phoenix has grown to become the largest private university in the United States with over 227,000 students who take classes online and at one of their 158 campuses.

There has been a steady increase in the number of online degree programs and online classes that are being offered at traditional universities. Technology advances have increased student access to library content through e-journals, e-books and databases.

Online education is entering a new phase of development that places a greater emphasis on academic quality in degree programs. Contemporary online schools must continually upgrade their technology and curriculum to effectively prepare students for current and future jobs and educational opportunities. Nichols (2001) highlights six imperatives for educators in the 21st Century:

- **Increased capacity and efficiency** - through enabling institutions to cater for the learning of a relatively large number of students at once.
- **Improved effectiveness** - by encouraging deep learning approaches and the adaptation of knowledge to the real world.
- **Easy accessibility** - by removing distance barriers and catering for a variety of learners' prior educational experience, physical abilities, and time commitments /lifestyles.
- **A competitive mindset** - education with the potential to be offered internationally, within industry, and at a distance; providing more choice and convenience for the student.
- **A resource-based emphasis** - enabling more student control over what, where, when and how they study and permitting non-linear learning; and
- **The personal touch** - with more interaction between students and between individual student and tutor, enabling a degree of customization and the pursuit of individual students' learning goals in addition to the prescribed course learning outcomes (pp.13-14).

The six imperatives stress a wise and visionary use of technology that will create relevant and accessible student resources. Distance educators and instructional course designers must continue to explore creative ways to personalize and intellectually enrich the cyber environment. Educational leaders must be willing to make financial investments into technology enhancements and teacher training and professional development. The organizations who are hesitant to make prudent long term financial commitments to online education will risk undermining their academic credibility. Poor financial planning and questionable marketing strategies has already produced several major business failures.

The online university known as United Kingdom e-University (UKeU) collaborated with the British government and invested 62 million pounds ($113 million) to develop their commercial venture. The project began in 2000 and collapsed in 2004 (Garett, 2004). Hopefully, educational organizations will be impatient with the status quo and strive to develop vibrant and new educational paradigms that take greater advantage of today's multimedia resources.

References

Garrett, R. (2004). The real story behind the failure of U.K. eUniversity. *Educause Quarterly*, 27(4). Available: http://www.educause.edu/apps/eq/eqm04/eqm0440.asp?bhcp=1

Nichols, M. (2001). *Teaching for Learning.* New Zealand: Traininc.co.nz

E-CaD: A New Curriculum Model at the University of Phoenix

Brent Muirhead

Muirhead, B. (2004). "E-CaD: A new curriculum model at the University of Phoenix." Technology Newsletter, 6(4), 27-28, Available: http://lttf.ieee.org/learn_tech/issues/october2004/learn_tech_october2004.pdf

Introduction

Distance educators are always interested in major instructional developments at the University of Phoenix (UOP). Recently, UOP has launched a new online educational design model know as E-CaD (Enhanced Curriculum & Delivery Model). My discussion will highlight the major features of E-CaD as it relates to the teaching and learning process.

Educational Background

The University of Phoenix (UOP) is recognized as a leader in adult education. The institution was established in 1976 and serves a student population of over 213,000 students who are involved in on-ground and online classes. The consolidated enrollment of its educational programs makes it the largest private higher education organization in the United States. Students can attend classes online and on-ground at 151 campuses that are located in 25 states, Canada and Puerto Rico. The average student age is 34 years old and 56% are females and 44% are males (UOP Fact Book, 2004).

A core of 347 full-time faculty members provides essential leadership by establishing academic standards and supervising curriculum development. Approximately 17,000 adjunct teachers (4, 000 online) are actively engaged in teaching a diversity of undergraduate and graduate degree programs (UOP Fact Book, 2004). The University is considered an innovative institution that has increased access to higher education while reducing the costs of developing online degree programs by:

> *using a centralized course development process to ensure quality control and reduce development costs; effectively using educational technology to deliver the same curriculum to more students; providing flexible access to classes (Twigg, 2001).*

The University of Phoenix has been criticized for using a curriculum based on uniformly prepared instructional materials. Educators are concerned that the curriculum restricts teacher creativity and lacks intellectual rigor (Breen, 2004; Farrell, 2003). University leaders respond to this issue by stressing that the curriculum is carefully developed for their degree programs. UOP utilizes a team of faculty members, curriculum managers and instructional designers who develop courses based on the latest theory and practice. Teachers can integrate their subject expertise into their courses through lectures, handouts and online discussion comments which help to personalize the learning environment.

Rationale for Implementing E-CaD

The University of Phoenix strives to be innovative in their online design and delivery of online education. UOP educators and administrators have been studying how to make their delivery model more efficient without sacrificing academic rigor. A real issue became one of scalability because the institution had to find a better way to accommodate more students. Additionally, it is a for profit organization which has to be sensitive to stockholder concerns about the potential for future growth in their online degree programs.

UOP has frequently promoted their small class sizes in their literature. Swenson (2001) states "the low student/faculty ratio and class sizes that average 13 students facilitate active learning and collaboration, encourage time-on-task, and foster high student-faculty interaction" (p. 5). University officials relate that the majority of today's major distance education schools often have at least 20 or more students per class. Therefore, the curriculum changes represent a major response to market factors which have help to prompt these changes. E-CaD is an instructional format that has been created to enable instructors to facilitate a class size of 20 students (E-CaD, 2004).

The University has been testing various online delivery systems and E-CaD represents the culmination of their research and pilot studies. It is a creative design that has retains an emphasis on essential student skills and subject knowledge but enables instructors to handle larger classes. E-CaD has the following key features:

Student Academic Expectations

- students actively participate with substantive remarks in online discussions 4/7 days a week (previously 5/7 days)
- final week of class has optional student participation in online discussions (previously students participated all weeks of course)
- weekly summaries are optional (previously these were required)

Faculty Academic Expectations

- provide detailed syllabus (change only in specific E-CaD details)

- share two weekly online discussion questions (previously 3-6 questions)
- freedom to assign weekly online discussion questions to learning teams (previously dialog questions created only for individual students)
- share weekly lectures can be optional if course has weekly overview of material in resource
- respond to student comments 5/7 days in online discussions (no change)
- share weekly grade reports with students (no change) (E-CaD, 2004).

The E-CaD model is currently being phased into the various online classes which will require careful modification of the curriculum to fit this new format. UOP facilitators are naturally a little anxious about increased class sizes and the impact that it will have on their work load. The author has taught two online classes (US history & film studies) under the new model and has found that students are actually sharing at least five days a week. Also, grading papers and responding to students online has been quite manageable and no more time consuming. Instructors must be careful to sustain good online presence with more students in their classes. The key is to daily share relevant messages in the main newsgroups and relate to all of the students during each week of class.

Conclusion

E-CaD represents important changes in the delivery of online courses at the University of Phoenix. It affirms a distance education trend of having larger classes to meet the growing demand for online degree programs.

References

Breen, B. (2003). The hard life and restless mind of America's education billionaire. *Fast Company*, Available: http://www.fastcompany.com/magazine/68/sperling.html.

Farrell, E. F. (2003). Phoenix's unusual way of crafting courses. *The Chronicle of Higher Education, 49* (23), A10.

UOP Fact Book (2004). University of Phoenix, Phoenix, Az, USA.

E-CaD (2004) University of Phoenix faculty materials, Phoenix, Az, USA.

Swenson, C. (2001). New models for higher education: Creating an adult-centered institution. *Globalization: What issues are at stake for universities?* Available: http://www.ulaval.ca/BI/Globalisation-Universities/pages/actes/Craig-Swenson.pdf.

Contemporary Online Education Challenges

Brent Muirhead

Muirhead, B. (2004). "Contemporary online education challenges." *International Journal of Instructional Technology and Distance Learning*, 1 (10), 65-69. Available: http://www.itdl.org/Journal/Oct_04/article05.htm

Editor's Note: Online editor Brent Muirhead has the final statement on ways to make online learning into a rich learning environment through community building activities, shared responsibility, and vibrant interaction.

Introduction

My discussion will note some of the educational concerns about the quality of today's online degree programs. Relevant instructional advice will be given on how to enhance the teaching and learning process.

Distance Education Dialog Challenges

The online setting holds potential for vibrant interaction and rich dialog. Unfortunately, online educational experiences can become quite wooden and lifeless at times, like a boring traditional classroom. Distance educators and their students can become disillusioned with the teaching and learning process when it lacks a dynamic interactive character. The author believes that part of the problem involves having a rigid learning environment that fails to acknowledge that learning must be context sensitive. Scott Gray (1999, paragraph 7) offers insights into the nature of online interactions:

> *Good – even great – online teaching will not be –will never be built- because you can not build interaction. You enter into it, like a warm bath (shades of McLuhan) like a familiar suit, like a comfortable home. The online materials are only the tools and components of online instruction hammers and screwdrivers and saws and doorframes and kitchen cupboards and furnaces and wall-to-wall carpeting. They do not – cannot- constitute a home. The `pausing, the pacing, the pushing, the pulling, the selection, maybe of this movie, that online resource project, such-and –such project – all of these occur in a dynamic fashion in the classroom, and indeed even to a large degree in online learning. Great teaching adapts and flows. The more personalized, the more context-sensitive such adaptations become, the more full the educational experience becomes, the more like a home, the less like a pile of tools.*

Gray's (1999) comments reflect a keen awareness of the importance of having an educational model that provides adequate flexibility for instructors and students to freely interact. Today's students want online classes that are enjoyable places where learning expectations are built upon relevant intellectual activities and discussions. It is interesting to observe teachers who claim to be student-centered in their educational philosophy but actually are quite controlling in their classes. Teachers can dominate online dialogs by posting an excessive number of messages that highlights the instructor's knowledge expertise but undermines the communication process. Instructors can become threatened by the online setting which has an open ended quality which causes some individuals to strive for security through greater control. Sadly, students are receiving a less academically rigorous education because they are not challenged to be independent thinkers. Students wonder about the quality of their ideas because the teacher fails to create a legitimate dialog that affirms the worth of their questions and concerns.

Making Positive Online Learning Connections

Meyer (2002) encourages teachers to take responsibility for properly using technology as a communication tool in their classes. Teachers should create email notes and biographical narratives that highlight their personalities. These are simple ways to integrate the teacher's social presence into their classes which stimulates interactivity. Teachers can design biographies that offer informative background comments relating to their academic degrees, professional experiences, personal interests and hobbies. Biographies should be designed to establish the professional credibility of the instructor and affirm the personal dimension of their lives. Instructors can enrich their biographies by using graphics, a personal picture and favorite quotes. It is a useful way to help students become acquainted with their teachers. Also, students appreciate having teachers who utilize a university or personal website. The University of Phoenix provides instructors with individual faculty websites that are designed to share basic contact information and biographical data. Students can access their instructor's website prior to the start of their course which helps them feel more comfortable about taking the class.

Collison, Elbaum, Haavind & Tinker (2000, p. 49) shares eight facilitator tasks that encourage relevant online work and interaction:

1. Leading introductory, community-building activities
2. Providing virtual 'hand holding' to the digitally challenged
3. Acknowledging the diversity of participants' backgrounds and interests
4. Infusing personality with tone, graphics and humor
5. Maintaining a nurturing pace of responding
6. Keeping up with a pace set
7. Organizing posts and discussion threads
8. Balancing private email and public discussion.

The eight tasks reveal the need for instructors to take a comprehensive view of interaction by making it a major objective within their curriculum plans. Students want intellectually and emotionally engaging dialogs which have connections to their current and future jobs. Integrating cognitive and metacognitive activities into the online setting remains a challenge for today's instructors who must deal with issues of student readiness and institutional barriers (i.e. course structure). Peters (1998) believes distance education is often delivered within the context of an industrial organizational paradigm. He voices concerns that distance education institutions use tightly structured courses with lectures and instructional activities that foster passive students learning patterns. "Students should not be the objects but the subjects of the teaching process" (Peters, 1998, p. 98).

Peters (1998) proposes an educational model that is quite similar to Rogers (1969) which places emphasis on having a self-directed, autonomous and informal learning approach. Students are expected take a leading role in their own education and learn to refine their metacognition skills. Garrison (2003, 1997) offers a sophisticated paradigm that classifies self-directed learning into three categories: self-management, self-monitoring, and motivation. The three elements acknowledge the importance of recognizing the need for students to become less dependent upon their instructors to acquire skills and knowledge. Teachers must offer appropriate guidance and a class structure that gives student instructional activities that encourage personal responsibility and accountability for meeting course learning objectives.

Today's distance teachers often advocate a self-directed learning philosophy because it encourages personal and professional growth. The concept of self-directed learning is vital to creating an educational setting or environment that promotes critical thinking. Moore (1993) advocates learner autonomy in distance education that involves a combination of instructional structure and dialogue. Knowles (1990, p. 135) relates that learners demonstrate self-directed learning skills by:

- Diagnosing their own needs for learning
- Formulating their own learning objectives
- Identifying effective human and material resources for accomplishing their objectives
- Choosing and implementing effective strategies for using these resources
- Evaluating the extent to which they have accomplished their objectives.

The level of cognitive maturity will vary among students which will require having teachers to make creative adaptations to their teaching plans and activities (Bullen, 1998). Curriculum changes should not reduce the academic quality of the course work. Online degree program administrators must avoid the temptation to dumb down their curriculum standards to increase their student enrollment numbers. The lowering of educational standards appears to help more students experience a measure of academic success. It really represents a patronizing view of people that questions their ability to effectively take on new intellectual challenges and it reflects an ambiguous view of equity. Furedi (2004) relates "… by treating people as weak and vulnerable individuals who are likely to stumble when confronted by intellectual challenge, such cultural attitudes serve to create a culture of low expectations" (p. 138). Distance education administrators, admission personnel and teachers need to work together to maintain high intellectual expectations for their students and uphold the academic integrity of their institutions.

Distance educators must develop short and long term goals for their students that recognize changing individual learning habits takes time, patience and a willingness to practice. Instructors can assist students through class activities which offer clear insights into their thinking processes. Writing assignments can be an excellent opportunity for students to practice being self-directed and reflective. Students should learn how to effectively select a topic and conduct research on it. The author has graduate online students learn about critical thinking by using this topic as the focus of one of their Power Point presentations. The initial student reaction to this assignment is somewhat apprehensive about teaching something as complex as this topic. The author shares lectures and charts on critical thinking principles which help alleviate their anxiety.

Students are required to develop either a handout, pamphlet or outline notes on their Power Point presentation. Student comments after their presentations indicate that reflective thinking is less of a mystical concept to them and it is more practical than they had realized. Online teachers who want to offer practical advice to encourage more intentional critical thinking in their students should consider sharing the following nine strategies (Paul & Elder, 2000)

- Use 'wasted' time
- A problem a day
- Internalize intellectual standards
- Keep an intellectual journal
- Reshape your character
- Deal with your ego
- Redefine the way you see things
- Get in touch with your emotions
- Analyze group influences on your life (p. 40).

Conclusion

This brief discussion has highlighted some of the academic challenges that face distance educators. "Today's manipulative attitude towards standards is in part a product of disappointment with the experience of reform in education, culture and social policy" (Furedi, 2004, p. 17). Online education is not immune from negative social trends which can undermine the teaching and learning process. Contemporary instructors play a vital role in shaping the intellectual depth of their online communities by helping their students become reflective and self-directed learners.

References

Bullen, M. (1998). Participation and critical thinking in online university distance education. Journal of Distance Education. 13(2). Available: http://cade.icaap.org/vol13.2/bullen.html

Collison, G., Elbaum, Haavind, S., & Tinker, R. (2000). Facilitating online learning. Effective strategies for moderators. Madison, WI: Atwood Publishing.

Furedi, F. (2004). Where have all the intellectuals gone? Confronting 21st century philistinism. New York, NY: Continuum.

Garrison, D. R. (2003). Self-directed learning and distance education. In M. G. Moore & W. G. Anderson (Eds.). Handbook of distance education, pp. 161-168. Mahwah, NJ: Lawrence Erlbaum Associates.

Garrrison, D. R. (1997). Self-directed learning: Toward a comprehensive model. Adult Education Quarterly, 48 (1), 15-31.

Gray, S. (1999). Message. ListServ WWW Courseware Development. Retrieved October 16, 2004 from http://listserv.unb.ca/bin/wa?A2=ind9907&L=wwwdev&T=0&F=&S=&P=2146

Knowles, M. S. (1990). Fostering competence in self-directed learning, In R. S. Smith (Ed.) Learning to learn across the life span. San Francisco, CA: Jossey-Bass.

Meyer, K. A. (2002). Quality in distance education: Focus on on-line learning. San Francisco, CA: Jossey-Bass.

Moore, M. (1993). Theory of Transactional Distance. In Keegan, D., (ed.) Theoretical Principles of Distance Education. New York: Routledge.

Paul, R. & Elder, L. (2000). Critical thinking: Nine strategies for everyday life, Part I. Journal of Developmental Education, 24 (1), 40. Retrieved from the University from Phoenix Online Library and ProQuest Database October 15, 2004.

Peters, O. (1998). Learning and teaching in distance education: Analyses and interpretations from an international perspective. London, England: Kogan Press.

Rogers, C. (1969) Freedom to learn. Columbus, OH: Charles E. Merrill.

Research insights into interactivity

Brent Muirhead

Muirhead, B. (2004). "Research insights into interactivity." *International Journal of Instructional Technology and Distance Learning*, 1(3), 65-70. Available: http://www.itdl.org

Editor's Note: Distance learning requires feedback and interactivity to compensate for lack of face-to-face contact. This paper discusses student expectations, value of timely instructor feedback, instructional strategies, and ways to increase interaction through instructional design, peer-learning, and interactive multimedia.

Introduction

Interactivity research studies involving online classes reveal that students value their opportunities to communicate with their peers and instructors. The author will briefly highlight student expectations for their online classes, discuss important findings from interaction studies and recommend several instructional ideas to enhance the quality of interaction in today's distance education classes.

Student Expectations

The literature on distance education reveals that students can experience problems which have a negative impact on their online education. Hara and Kling's (2000) study describes some of the frustrations that online graduate students have due to the absence of technical support and timely instructor feedback. In fact, distance educators are developing a new set of terms to describe the learning problems in virtual classes. The word *cyberia* refers to "a place to which online students feel they have been regulated when they receive no feedback from their instructor" (Jargon Monitor, 2000, p. A51).

Contemporary course designers, administrators and instructors must pay close attention to the learning needs of students. As Palloff & Pratt (2003) relate "what the virtual student wants and needs is very clear: communication and feedback, interactivity and a sense of community, and adequate direction and empowerment to carry out the tasks required for the course" (pp. 129-130). Today's online students need appropriate guidance for their assignments and relevant class discussions and activities. Instructors can diminish student motivation by assigning an excessive number of assignments and having numerous discussion questions in their weekly dialogs. Shearer (2003) observes that "while the students probably do not shy away from courses with extensive workloads, they do not want busy work to usurp the time they could be spending more productively on other tasks" (p. 13).

It should be recognized that distance education degree programs are not for all students. The author has observed that some students at the University of Phoenix (UOP) have related stories of being frustrated in their online classes. The students decided to switch to conventional face-to-face classes because they missed the physical presence of teachers and students. This naturally raises the question, what are the characteristics of a successful online student? The literature points to three key characteristics: good work ethic, ability to work collaboratively and the ability to think reflectively. Enrollment officials and administrators must work together to insure that they help prospective students assess whether they can effectively participate in online classes. Palloff & Pratt (2003) describe students who do not correctly assess their readiness "…they are not only minimizing their own chances for success but also limiting the ability of their classmates to get the greatest benefit from the course" (p. 7).

Student Interactions

> *Student-to-student interaction involves students communicating online with each other as individuals or as a group. In constructivist based learning, educators stress the value of learners interacting with other students by utilizing small group instructional activities that can enhance their skills in knowledge building and social cognition. This places a strong emphasis on collaborative and cooperative learning (Anderson, 2003).*

Student-to-student interaction in group work fosters inter- and intra-peer collaboration.

Peer to peer learning is an interactive and dynamic process that involves learners in discourse, assessment, critique and value judgment as to the quality and standard of the work of their classmates. This process also involves providing feedback to their peers enabling them to enhance their academic performance (Juwah, 2003).

The instructional goals for small group activities can be used for a variety of learning objectives. Educators should utilize learning teams to foster community relationships, promote reflective thinking and enhance understanding of the subject matter (Palloff & Pratt, 2001). Contemporary educators often favor learning teams due to an assortment of learning benefits:

- encourages multiple perspective on issues
- facilitates higher developmental learning skills
- reduces learner uncertainty during complex activities
- increases learner participation in the educational process
- promotes cognitive processes such as verbalization (Harasim, 2003).

Harasim's (2003) model of conceptual change focused on collaboration as a key element in the mutual construction of knowledge by stressing three phases: idea generating, idea linking and intellectual convergence. Collaboration and discourse has played a vital role in making innovative contributions to new schools of thought and practice in the business and academic communities. Mark (2001) highlights the potential positive benefits to a social web:

- enhance social life through knowledge and mutual participation in new types of cultural and leisure activities
- encourage a shared community of knowledge that is international in scope
- provide opportunities to meet others who have similar interests, goals and needs which can foster.

Garrison & Anderson (2003) relates, "a problem with many forms of student to student interaction theory is that they nearly always assume that individuals share a content interest within a shared time space" (p. 44). Students will select certain distance education programs and institutions because they enjoy the freedom to pursue independent studies. Group discussions can be counter productive at times due to misinformation, group think mentality, dominating learners who undermine dialog and conflicts with individual learning styles. Hopper (2003) raises concerns that an excessive emphasis on consensus in learning teams can foster mediocrity and fail to affirm the creative contributions of independent thinkers. Hopper's graduate online group experiences were very frustrating.

> *"I expected graduate work to put me in close contact with more learned minds, accomplished and respected in the discipline, who would challenge and guide me. I felt disappointed and frustrated to feel so often awash in the bland discourse of novices like myself" (p. 27).*

Instructional Insights to Enhance Interactivity

Students have legitimate concerns about working in distance education classes such as isolationism and working with students who are less motivated about doing their assignments. Hannafin, Hill and Land (1997) believe that most students lack the substantial self-monitoring skills that are necessary for working in online classes. They suggested student academic success would need more academic support from their peers and teachers and empowerment through thoughtful interaction to acquire the necessary skills to work effectively in an open-ended setting.

Thurmond (2003) and Burge's (1994) studies affirmed the presence of specific peer behaviors that are essential for effective computer-mediated classes. The four major types of peer behavior are:

- **Participation** - share different perspectives, demonstrate application of knowledge, risk sharing tentative ideas, and show interest in the educational experiences of other learners.
- **Response**-provide constructive feedback, respond to questions without being repetitive, be a dependable small group member, share positive remarks with others, and actively participate in relevant dialog.
- **Affective feedback**-use learner's names during course work, provide a sense of community or belonging to others, show patience, offer compliments, and encourage a learning atmosphere that is affirming and supporting.
- **Focused messaging**-use concise statements and avoid excessive messages that fail to contribute to group learning (Burge, 1994).

Online interaction has brought attention to the affective benefits found in distance education. Research studies on the affective dimension of learning indicate that it can have positive impact on academic achievement but it is area that needs more study (Brophy, 1999). Affective benefits represent important social and emotional aspects to the online experiences. Learners enjoy sharing personal stories that bring a human element to their classes where they can freely share their ideas and frustrations (Spitzer, 2001). In most online learning programs, learners are required to share a personal biography at the beginning of each class. The biographies provide an informational reference point for learners to share during the course. It helps learners create personal online identities which encourage more in-depth dialog (Muirhead, 2001).

Distance educators promote a philosophy of teaching and learning that integrates social interaction into a learner-centered environment. Teachers are encouraged to become facilitators who guide their students into instructional experiences that foster interaction with other learners. The online setting can create some communication anxiety among people who miss the social cues such as facial expressions.

The act of posting comments in a class discussion forum involves a certain amount of personal risk. Students who send messages wonder how others will receive their written thoughts. Individuals who possess fewer cognitive and computer skills can feel even more anxious in their first online class. Seaton (1993) states that

> *"students who are cognitively immature are not as likely to be active participants in CMC [Computer Mediated Communication] learning situations. They are likely to want faculty to provide the 'right answer' viewing knowledge not as critical thinking but as a collection of information" (p. 51).*

Affective responses have a major impact on the quality of communication and interaction within an online class. Garrison & Anderson (2003) argues for classifying interactions under a broader category called social presence which includes three categories: affective, open communication and cohesive communication.
What is social presence? According to Meyer (2002), it refers to "the degree to which a person is perceived as real in an on-line conversation" (p. 59). Therefore, social presence is part of a larger and complex set of interactions involving learner control and communication factors (Mortera-Gutierrez, 2002).

Student-teacher interaction is a multidimensional relationship that contains several variables such as the teacher's level of social presence, quality of feedback (i.e. accurate and timely) and intellectual depth of dialog (Berge, 2002, Gunawardena, 1995; Swan, 2001). As many learners may be new to distance and online education, teachers need to develop strategies that validate student's current academic development while helping them pursue their professional and personal goals. Teachers must create a class structure that stimulates social interaction and promotes independent learning skills (Jaffee, 1999). Obviously, the amount of teacher involvement varies from one educational context to the other because the learning process is a dynamic entity that transcends any exact formula. Collis (1998) believes communication patterns should be flexible for both students and teachers. Students should be able to ask the teacher questions when they have definite needs and expect a response in a reasonable amount of time.

Conclusion

A major challenge for today's online instructors involves creating a consistent level of interaction that fosters academic learning and cultivates a community atmosphere. This will require developing strategies that provide appropriate guidance and instruction for individuals and student groups. Roblyer & Wiencke (2003) note that "the more comfortable the students become with distance formats, the more likely they are to participate both spontaneously and when required" (p. 89). The literature affirms the importance of training new online instructors to equip them with the skills and professional knowledge to foster dynamic interaction in their classes (Muirhead 2002; Muirhead & Betz, 2002).

References

Anderson, T. (2002). An Updated and Theoretical Rationale for Interaction. Available: http://it.coe.uga.edu/itforum/paper63/paper63.htm

Berge, Z. L. (2002). Active, interactive, and reflective elearning. Quarterly Review of Distance Education, 3, 181-190.

Brophy, J. (1999). Toward a model of the value aspects of motivation in education: Developing appreciation for particular learning domains and activities. Educational Psychologists, 34 (2), 75-85.

Burge, E. J. (1994). Learning in a computer conferenced contexts: The learner's perspective. Journal of Distance Education, 9(1), 19-43.

Collis, B. (1998). New didactics for university instruction: Why and how? Computers & Education, 31 (4), 373-393.

Garrison, D. R. & Anderson, T. (2003). E-learning in the 21st century: A framework for research and practice. London, UK: RoutledgeFarmer.

Gunawardena, C. N. (1995). Social presence theory and implications for interaction and collaborative learning in computer conferences. International Journal of Educational Telecommunications, 1, 147-166.

Hannafin, M. J., Hill, J. R. & Land, S. M., (1997). Student-centered learning and interactive multimedia: Status, issues, and implications. Contemporary Education, 68 (2), 94-99.

Hara, N. & Kling, K., (2000). Student distress with a web-based distance learning course: An ethnographic study of participants' experiences. Available: http://www.slis.indiana.edu/ CSI/WP/wp00-01B.html

Harasim, L. (2003). What makes online learning communities successful? In C. Vrasidas & G. V. Glass (Eds.). Distance education and distributed learning (181-200). Greenwich, CT: Information Age Publishing.

Hopper, K. B. (2003). In defense of the solitary learner: A response to collaborative, constructivist education. Educational Technology 43 (2), 24-29.

Jaffee, D. (1999). Asynchrous learning: Technology and pedagogical strategy in a computer-mediated distance learning course. Available: http://www.newplatz.edu/~jaffeed/ esssxx.htm

Jargon Monitor (2000). The Chronicle of Higher Education, 57, 13, A51.

Juwah, C. (2003). Using Peer Assessment to Develop Skills and Capabilities. Journal of the US Distance Learning Association–Available: http://www.usdla.org /html/journal/JAN03_Issue/article04.html

Mark, G. (2001). Social foundations for collaboration in virtual environments. In F. T. Tschang & T. D. Senta (Eds.) Access to knowledge: New information technologies and the emergence of the virtual university (pp. 241-263). Oxford, UK: Elservier Science.

Meyer, K. A. (2002). Quality in distance education: Focus on on-line learning. San Francisco, CA: Jossey-Bass.

Mortera-Gutierreze, F. & Murphy, K. (2000). Instructor interactions in distance education environments: A case study. Concurrent sessions presented at the annual distance education conference sponsored by the Texas A&M Centre for Distance Education, Austin, TX.

Muirhead, B. & Betz, M. (2002). Faculty training at an Online University. USDLA Journal, 16 (1). Available: http://www.usdla.org/html/journal/JAN02_Issue/ article04.html

Muirhead, B. (2002). Training new online teachers. USDLA Journal, 16 (10). Available: http://www.usdla.org/html/journal/OCT02_Issue/article06.html

Muirhead, B. (2001). Practical Strategies for Teaching Computer-Mediated Classes. Educational Technology & Society, 4 (2). Available: http://ifets.ieee.org/periodical/vol_2_2001/ discuss_summary_jan2001.html

Palloff, R. M, & Pratt, K. (2003). Virtual student: A profile and guide to working with online learners. San Francisco, CA: Jossey-Bass.

Palloff, R. M. & Pratt, K. (2001). Lessons from the cyberspace classroom: The realities of online teaching. San Francisco, CA: Jossey-Bass.

Roblyer, M.D. & Wiencke, W. R. (2003). Design and use of a rubric to assess and encourage interactive qualities in distance courses. The American Journal of Distance Education, 17 (2), 77-98.

Seaton,W. J. (1993). Computer-mediated communication and student self-directed learning. Open Learning, June, 49-54.

Shearer, R. L. (2003). Interaction in distance education. Special Report 2 (1). Madison, WI: Atwood Publishing.

Spitzer, D. R. (2001). Don't forget the high-touch with the high-tech in distance learning. Educational Technology, 61 (2), 51-55.

Swan, K. (2001). Virtual interaction: Design factors affecting student satisfaction and perceived learning in asynchronous online courses. Distance Education, 22, 306-331.

Thurmond, V. A. (2003). Examination of interaction variables as predictors of students' satisfaction and willingness to enroll in future Web-based courses. Doctoral dissertation. University of Kansas Medical Center, Kansas City, KS.

Interactivity in Computer-Mediated College and University Education: A Recent Review of the Literature

Brent Muirhead and Charles Juwah

Muirhead, B., & Juwah, C. (2004). "Interactivity in computer-mediated college and university education: A recent review of the literature." *Educational Technology & Society* 7(1). Available: http://ifets.ieee.org/periodical/7_1/index.html

Pre-Discussion Paper

Introduction

Interactivity and interactions are critical in underpinning the learning process in face-to-face, campus based and distance and online education. Interactions serve a diverse range of functions in the educational process which include, for example:

- promoting active and participative learning on a one to one basis or within a group or learning community through social dialogue;
- enabling effective facilitation of learning to suit individual learner's needs and learning styles;
- allowing learner input to the learning process as well as enabling learners to take ownership and control of their learning;
- enabling the development of higher order knowledge and abilities, for example critical thinking, problem solving, judgment-/decision-making skills, reflection, etc.;
- providing effective feedback to inform on the teaching and learning process as well as enhance the quality and standards of the learning experience (Fahy, 2003; Juwah, 2003

The rapid evolution of the information and communications technologies (ICT) and the Internet has contributed significantly to the phenomenal growth of distance and online education. Educational research findings suggest that the success of any educational process is and should be underpinned by sound pedagogical principles and interactions. Our brief overview of literature will highlight some trends and developments in the study of interactivity and interactions in distance and online education.

Defining Interactivity

The search for an educationally viable definition of interactivity has produced some valuable insights for distance educators. Interactivity and interactions in online education are complex, multifaceted phenomenon and are critical in promoting and enhancing effective learning (Anderson, 2002; Hirumi, 2002; Sims, 1995; Yacci, 2000).Yacci (2000) describes four major attributes to interactivity:

1. Interactivity is a message loop;
2. Instructional interactivity occurs from the student's point of view and does not occur until a message loop from and back to the student has been completed;
3. Instructional interactivity has two distinct classes of outputs: content learning and affective benefits;
4. Messages in an interaction must be mutually coherent (p. 6).

Yacci's reflections reveal the existence of a student-centered orientation around their perceptions of interactivity. Therefore, a web based educational program can claim interactivity but students will not acknowledge interaction until they individually receive some form of feedback. Yacci's observations emphasize the need to study online interaction from a communication theory perspective by investigating a diversity of variables such as length and number of messages, type of information shared and the amount of time between responses.

Muirhead (2000) offers a practical definition of interactivity, which affirms the human dimension of this term; interactivity refers to communication, participation, and feedback. Additionally, interactivity involves participation by the learner in online communication with other learners and with their instructors. The definition highlights the personal nature of sharing information during an online class. Naturally, students interact with their course materials through reading textbooks, journals and discussion forum comments from other students and their instructors. The subject matter provides an academic foundation for meaningful dialogue within a distance education class.

From the above definitions, it is clear that interactivity is a multifaceted concept and can be described to mean different things in a variety of contexts. Nevertheless, it is recognized as an important and critical characteristic in instructional design, social context and success of distance education (Beard and Harper, 2002). Thurmond (2003) shares an insightful definition of interaction:

> *The learner's engagement with the course content, other learners, the instructor, and the technological medium used in the course. True interactions with other learners, the instructor, and the technology results in a reciprocal exchange of information. The exchange of information is intended to enhance knowledge development in the learning environment. Depending on the nature of the course content, the reciprocal exchange may be absent – such as in the case of paper printed content. Ultimately, the goal of interaction is to increase understanding of the course content or mastery of defined goals (p. 4).*

To add to this debate, the authors based on their understanding and experience from practice share relevant definitions of interactivity and interaction as follows:

Interactivity

Interactivity in distance and online education describes the form, function and impact of interactions in teaching and learning.

Interaction

Interaction is a dialogue or discourse or event between two or more participants and objects which occurs synchronously and/or asynchronously mediated by response or feedback and interfaced by technology. The interactions which can be categorised as learner to learner, learner to content, learner to tutor, learner to technology, tutor to content, tutor to technology, content to content, promote and enhance quality of active, participative learning in a learning environment (See figure 1).

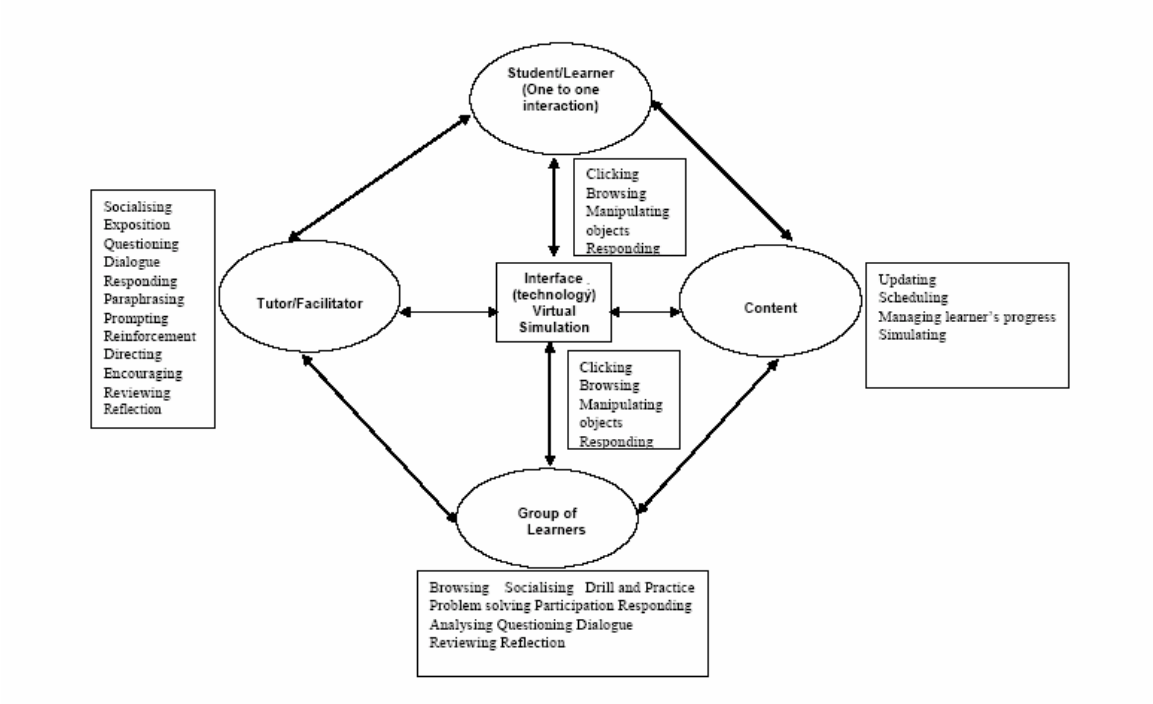


Figure 1. Model of Interactivity

Types of Interactions

There exists in the literature an array of taxonomies for categorizing interactions. Several authors have identified four primary types of interactions. These are - student-student, student-teacher, student-content, student-interface (Anderson 2002; Hirumi, 2002; Rovai, 2002; Sims, 1995). Sims (1995) provides a valuable classification of interactivity based on an instructional courseware designer's perspective. This classification demonstrates both the importance and integrated aspects of the various concepts in enhancing motivation, engagement and instructional transactions in technology-enhanced education. The following descriptions depict the range and characteristics of the interactive concepts:

Object Interactivity: (proactive inquiry) refers to an application in which objects (buttons, people, and things) are activated by using a mouse or other pointing device to elicit an audio-visual response.

Linear Interactivity: (reactive pacing) refers to applications in which the user moves through predetermined linear sequence of instructional material without any response-specific feedback to learner's actions. This type of interaction is referred to as "page-turning".

Support Interactivity: (reactive inquiry) provides learners with performance support in both generalized and context-sensitive perspectives.

Update Interactivity: (proactive) relates to individual application components or events in which a dialogue is initiated between the learner and computer-generated content. This may involve applications which present or generate problems or dialogues to which the learner must respond. The learner's response will result in a computer-generated update or feedback. The instructional rigor of the judging will determine the extent to which the update or feedback provides a meaningful response to the user.

Construct Interactivity: (proactive elaboration) involves learner in manipulating component objects to achieve specific goals and/or outcomes. This type of interaction provides a link between non-situated learning and simulated environments, and introduces the learner to authentic learning situations without the risks or costs involved with "real life situations".

Reflective Interactivity (proactive elaboration) refers to interactions in which users' entered responses to a task are compared to the responses of other users as well as recognized "experts", thus enabling the learners to reflect on their response and make their own judgment as to its accuracy or correctness.

Simulation Interactivity:(which ranges from reactive elaboration to mutual elaboration, depending on its complexity) involves the learner in manipulating "non-real" objects to obtain desired goals in a training sequence. Sims (1995) posits that simulation and construct interactivity levels are closely linked, and may require the learner to complete a specific sequence of tasks before a suitable update can be generated. The interaction sequence can also be varied for example, allowing the learner to progress to other stages of learning/activity only after making a correct choice.

Hyperlinked Interactivity: (proactive navigation) provides the learner access to a wealth and diverse range of information linked to a knowledge base.

Non-Immersive Contextual Interactivity: (mutual elaboration) provides the virtual environment in which users/learners engage in meaningful learning in a job-related context through a series of content oriented sequences.

Immersive Virtual Interactivity: (mutual elaboration) provides a complete computer-generated, virtual reality interactive environment in learning based on interactions between the user's actions and response and feedback from within the learning environment.

He concluded his classification by proposing an engagement-control model of interactivity. The model consists of engagement which is instructional or navigational, control wherein the program or learners is in control of making the instructional/navigational decisions and the interactive concept provides an indication of the type of interaction expected under the particular context.

Hirumi (2002) provides a concise summary of the categorization of interactions as "communications-based"; "social"; "roles of the instructor", "purpose-based"; "use of telecommunication tools" and "activity-based". In addition, Hirumi (2002) highlights the importance of sound educational principles, cognitive learning theories and grounded instructional strategies to inform course design and sequencing of activities to ensure effective interactions, thereby, making learning relevant, meaningful and authentic.

However, to support authentic learning as well as enhance the learner's educational experience in distance and online courses, it is imperative to provide adequate scaffolding. The epistemological approach in providing appropriate scaffolding to support deep learning in the diverse range of interactions can be via – manipulating objects and symbols, questioning, dialoguing, analyzing, netweaving, representing, i.e. presenting and structuring activities and guiding learner's reflection within appropriate contexts. These scaffoldings can be categorized as:

Conceptual: These guide the learner in what to consider, particularly when the problem/task is defined. They provide explicit hints and examples.

Metacognition: These guide the learner on how to think in considering the problem/strategies, for example, framing the problem. These provide suggestions to plan ahead, model cognitive strategies, regulatory process and evaluation.

Procedural: These guide the learner on how to utilize information – i.e. provide on-going help and advice, and may include tutoring.

Strategic: These guide the learner in analyzing and approaching the problem with a strategy. These provide a start up to seeking solutions, as well as enabling focused responses to the problem situation (Juwah, 2002).

Cognizant of the role of interactions in education and drawing from experience and other research studies, Anderson (2002, paragraph 10) goes on to develop an "Equivalency theorem" that states:

> *Sufficient levels of deep and meaningful learning can be developed as long as one of the three forms of interaction (student-teacher; student-student; student-content) are at very high levels. The other two may be offered at minimal levels or even eliminated without degrading the educational experience. High levels of more than one of these three models will likely deliver a more satisfying educational experience, though these experiences may not be as cost or time effective as less interactive learning sequences.*

Our search and review of the literature highlights six primary types of interactions within which a variety of secondary interactions and activities are embedded. These categories are:

- student-student;
- student-teacher;
- student-content;
- student-interface;
- teacher-teacher;
- content-content.

Notwithstanding the plethora of categorizations of interactions, one thing was obviously clear in the literature. There is no single medium that is superior to the others in supporting the learner's needs and educational experience via the provision of various types of interactions. However, each type of instructional interaction plays a role in the entire educational process, with the process being more effective if predicated on a blend of interactions.

Educational Implications

Research has shown that the use of ICT and multimedia in both verbal and non-verbal forms improve and facilitate learning through reducing cognitive load. It provides the right context and an integrated learning environment that combines the use of the Web and an appropriate mix of multiple - and/or multi-media e.g. animation, audio, images, video, CD, print and hypertext to give a rich, stimulating and interactive learning environment. The media mix enhances learner motivation and has the potential of meeting the needs of the different learning styles – visual (images), auditory (sound), tactile (touch) and kinesthetic (whole being). However, it is critical that in designing a learning environment in which ICT is used to support learning that such an environment has the ability to synchronize and coordinate diverse multimedia elements (Juwah, 2002).

Research studies on constructivism and interactivity point to some interesting preliminary results. Taylor and Maor (2000) studied a graduate online class at Curtin University of Technology, Perth, Australia. The research project created a questionnaire known as the Constructivist On-Line Learning Survey (COLLES) to measure both teacher and student perceptions in the following six categories:

- **professional relevance-** the extent to which engagement in the on-line classroom environment is relevant to student's professional worldviews and related practices;
- **reflective thinking-** the extent to which critical reflective thinking is occurring in association with online peer discussion;
- **interactivity-** the extent to which communicative interactivity is occurring on-line between students and between students and tutors;
- **cognitive demand-** the extent to which communicative interactivity is occurring on-line between students and tutors;
- **affective support-** the extent to which sensitive and encouraging support is provided by tutors;
- **interpretation of meaning-** the extent to which students and tutor co-construct meaning in a congruent and connected manner (Taylor and Maor, 2000, paragraph 4).

Student expectations were met in five of the six categories except in the area of interactivity. A revealing finding was the absence of dynamic dialogue in the class which had structured small group activities that included a systematic change of student leaders and topics. Student online remarks were one-dimensional commentaries that failed to address comments made by their colleagues. The study indicated teachers must create a learning environment that equips students with instructional experiences to enhance their reflective skills. Additionally, students must be dedicated to becoming more sophisticated learners who are willing to learn from their colleagues while cultivating an intellectually engaging writing style that fosters academic discussion.

It is clearly evident from the literature that interactions are critical for enhancing motivation, communication, a diverse range of skills and intellectual development in the educational process. However, the lack of proper integration between pedagogy, organization and technology has often resulted in some distance and online education being delivered as correspondence courses, with the consequence that such courses lack interactivity, immediacy and appropriate tutor feedback. Such a phenomenon has led Garrison and Anderson (2003) to state "educators have not understood and capitalized on the blend of symbol systems, such as multimedia, text-based communication systems that create new modes of expression and communication" (p. 4).

Further Research

Information available in the literature on research into the complex phenomenon of interactivity and interactions is rather limited in scope due to the lack of theory to guide research projects (Anglin & Morrison, 2003). Berge and Mrozowski (2001) in their survey of research articles from four technology journals for the period 1990-1999, identified the following research trends:

Most attention-over 100 articles were focused in three categories

- design issues
- strategies to increase interactivity
- learner characteristics

Least attention was paid to

- learner support
- equity and accessibility
- cost/benefit trade-offs

Interactivity has been a major focus for researchers but much more needs to be done. Interactions online occur within a learning community and such communities provide an important area for research, in terms of the nature of collaboration and interactions within the community of learning. The issue of learner support is connected to related topics such as student attrition. For instance, what are the most effective types of learner support? Motivation and engagement are critical factors for effective learning. The challenge here is to investigate the pedagogy of engagement and interactions through electronic simulation or virtual reality in enhancing learner's experience.

Conclusion

This literature review highlights the multifaceted nature of the concept of interactivity and interactions, as well as the importance of interactions in underpinning distance and online education. It briefly highlights the fact that interactions are not solely the manipulation of symbols and representation but the promotion of metacognition (reflection) which is critical in meaning making and construction of new knowledge. Additionally, the review also highlights insights from online teaching experiences that will help inform current theories and generate ideas to develop new theories (Anglin & Morrison, 2003).

Discussion Questions

1. What types of interactions provide the best educational experiences for online students?
2. What are the most effective ways to facilitate student collaboration online?
3. What teacher practices encourage positive communication within the online class?

References

Anderson, T. (2002). *An Updated and Theoretical Rationale for Interaction*. Available: http://it.coe.uga.edu/itforum/paper63/paper63.htm.

Anglin, G. J. & Morrison, G. R. (2003). Evaluation and research in distance education: Implications for research. In C. Vrasidas & G. V. Glass (Eds.). *Distance education and distributed learning*, (pp. 157-180). Greenwich, Ct: Information Age Publishing.

Beard, L. A. & Harper, C. (2002). Student perceptions of online versus on campus instruction. *Education*, 122, 658-663.

Berge, Z. L. & Mrozowski, S. (2001). Review of research in distance education, 1990-1999. *The American Journal of Distance Education*, 15 (3), 5-19.

Fahy, P. J. (2003). Indicators of support in online interaction. International Review of Research in Open and Distance Learning. Available: http://www.irrodl.org/content/v4.1/fahy.html

Garrison, D. R. & Anderson, T. (2003). *E-learning in the 21st century: A framework for research and practice*. London, UK: RoutledgeFarmer.

Hirumi, A. (2002), The Design and Sequencing of e-Learning Interactions: A Grounded Approach, *International Journal of E-Learning*, Vol. 1, pp.19-27.

Juwah, C. (2003). Using Peer Assessment to Develop Skills and Capabilities. Journal of the US Distance Learning Association – Available: http://www.usdla.org/html/journal/ JAN03_Issue/article04.html

Juwah, C. I. (2002). Using Information and Communication Technology to Support Problem Based Learning. A commissioned article by the Institute for Learning and Teaching in Higher Education (ILTHE). ILTHE Members

Resource Area. [Access is restricted to members only] Available: https://www.ilt.ac.uk/portal/showarticle.asp?_article=3581

Mayes, T. (2000). Pedagogy, Lifelong Learning and ICT. A Discussion Paper for the IBM Chair presentation. http://www.ipm.ucl.ac.be/ChaireIBM/Mayes.pdf

Muirhead, B. (2000). Interactivity in a graduate distance education school. Educational Technology & Society, 3(1), 2000. Available: http://ifets.ieee.org/periodical/vol12000/muirhead.html

Rovai, A. A. (2002). A preliminary look at the structural differences of higher education classroom communities in traditional and ALN courses. *Journal of Asynchronous* Learning Networks, 6 (1). Available: http://www.aln.org/alnweb/journal/jaln-vol6yissue1.htm

Sims, R. (1995). Interactivity: A Forgotten Art? *Instructional Technology Research Online.* Available: http://www.gsu.edu/~wwwitr/docs/interact/

Taylor, P. & Maor, D. (2000). Assessing the efficacy of online teaching with the Constructivist On-Line Learning Environment Survey. In A. Herrmann & M. M. Kulski (Eds.), Flexible futures in tertiary teaching. Proceedings of the 9th annual teaching learning forum, 2-4 February 2000. Perth, Australia: Curtin University of Technology. Available: http://cea.curtin.edu.au/tlf/tlf2000/taylor.html

Thurmond, V. A. (2003). *Examination of interaction variables as predictors of students' satisfaction and willingness to enroll in future Web-based courses.* Doctoral dissertation. University of Kansas Medical Center, Kansas City, KS.

Yacci, M. (2000). Interactivity demystified: A structural definition for distance education and intelligent computer-based instruction. *Educational Technology*, XL (4), 5-16.

Post-Discussion Summary

The discussion began with concerns about creating an accurate definition of interactivity that clearly describes the human interactions in the online environment. Writers have developed several taxonomies of online interactions but it is still a work in progress. The dialog did engage in an assortment of interactivity issues such as relevant pedagogical activities, teacher competencies, teacher training, instructional design considerations and classroom management.

Research studies on interactivity reveal a multidimensional entity that often requires more investigation. The following IFETS discussion highlights as well as reflects a rich diversity of thought on interactivity in computer-mediated classes.

Marshal Anderson- raised concerns that instructional designers must work harder at developing e-learning platforms that meet legitimate student needs.

Richard Dillman- discussed reasons why students drop out of their online classes and observed that it takes time for online teachers to adopt and modify their instructional techniques. "Just as it requires some new skills to study online, so does it require new teaching skills? If we were to be honest about it, we would have to admit that some teachers still have some work to do in that regard."

Anita Pincas- shared her work as an online instructor at the University of London and how teachers can transfer traditional methods into the online environment by using video tapes/cameras and Power Point slides. Anita notes that her "Replication Model" has helped students and educators to make a natural transition to the online setting.

Hans Horwath- argues for creating unique online courses that are truly different from the traditional face-to-face classes and suggests creating an international forum as one way to bring diversity into cyber classes.

Barry Porter- stressed the importance of student motivation and having his online masters degree accepted for a doctoral program.

Bob Valiant- noted how individuals are already managing their own learning more than
we probably realize and shared a web site for one of his articles on this vital subject.

Hai Zhang- outlined potential ways to discuss the transfer of information online such as data mining, cultural analysis, media communication and cognitive science.

Marsha Hammond- shared the importance of instructors communicating clearly in their online courses through written messages. Marsha spoke about variability of student involvement in online discussions and the desire to discuss this issue.

Wang Xiuwen- stressed the need to individualize student assessments and the importance of recognizing student learning styles in the teaching and learning process.

M. Yasar Ozden- observed that his online class requires much more work than his traditional classes. The human and social dimension of learning is very important to the online learning process which affirms the need for diligent and trained instructors. He raised thoughtful questions about the daily online management strategies of teachers and whether online teacher competencies differ from the traditional teacher skills.

Ania Lian- suggested that those concerned with the constructivist perspectives of online teaching should focus more attention on how their instructional practices influence their student's ability to form or build reality/knowledge. Ania raised a vital question, "what makes our definition of interaction challenge our teaching rather than being subservient to our prejudices?"

Anthony Trippe- noted how he fosters active participation in his online classes through his grading procedures which place a strong value on student participation.

Mark Nichols- raised questions about the nature of interactivity and proposed that the concepts of "object" and "linear" should be classified as types of content navigation and not interactivity.

Bronwyn Hegarty- explored the five different threads in our IFETS interactivity discussion to examine the coherence of our dialog.

Eshaa M. Alkhalifa- raised an assortment of reflective questions about online assessment involving the teaching and learning process and shared insights from researchers on several issues.

Mary Hall- shared a detailed overview of our discussion to highlight the temporal nature of interactions while stressing the coherence and purposefulness of our dialog.

Roger Hartley- offered insights into assisting online learners by developing specific student plans based on instructors and students collaborating to create relevant course work. Roger encourages his students to map out their current level of knowledge which helps to identify their genuine learning needs.

Charles Adamson- noted the role of assessment in his Japanese nursing degree program and that the method of assessment must affirm program goals.

Joanna Howard- related how working in an MBA program, collaborative mapping between student and instructors helped accelerate the entire learning process.

Alfred Bork- emphasized the issues of frequency and quality of online interactions. He suggested the key to increasing

individualized education was creatively using the computer as an adaptive tool to communicate at a global level. He noted that adaptive tutorial learning could be quite useful for China and it has larger implications due to the shortage of teachers.

Ramesh Sharma- shared recent research studies on interactivity which revealed how online instructors brought a human dimension to their classes to create cyber communities.

Eric Flescher- related a concern about the weakness in current Internet based instructional activities that do not encourage students to do original and reflective work . "Teachers many times either make the activities too structured or too flexible and fail to use various multiple intelligence mode based activities (drawing, group, visual, mathematical etc) to supplement their activities."

Bill Williams- addressed a host of interactivity issues involving creating an appropriate and stronger interactivity definition which avoids excessive generalizations and simplistic identification of basic interactions (i.e. reading), importance of properly assessing online learning, solitary learners represent a smaller portion of students who have few interaction expectations and critical multimedia and task design. He made a very relevant observation that "I believe course design and more specifically task design is a key factor here and I am concerned that this meta-structural aspect may be in danger of being neglected if our attention is focused mainly at the interaction level."

Wang Xiuwen- related the importance of online instructors providing adequate guidance for their students when using a student-centered instructional model. It takes time for teachers to change from traditional teaching methods to technology oriented learning strategies.

M. Goswamy- stressed the need to develop an educational online environment that promotes a sense of "openness" by stimulating student questioning and inquiry during online interactions. "It is, therefore, essential that the contents and the interaction are not only linked and complimentary but also supplementary in nature."

Bob Cavenagh- observed that culture can play a role in online interactivity. "I deal with some students from other cultures and have gradually recognized that their occasional unwillingness to participate in some situations stems from cultural values, not from shyness, linguistic shortcomings, or lack of ability."

Terry Anderson - shared the idea of "equivalency theorem" which provides a rationale for concentrating on learner needs for different types of interaction (time and geographic constraints etc.) and the cost implications of each type.

The diverse range of factors covered in the discussion reflected the role and importance of interactivity in underpinning and enhancing learners' educational experience. The issues raised in the discussion thus focuses the mind as well as challenges educators and researchers to engage more with and to continually research and gain a better understanding of this critical phenomenon that can impact very significantly on the quality of the learning process. To that end, the areas highlighted from our discourse for further research include:

- Designing of learning environments to support quality interactions;
- Course design to ensure appropriate content and effective sequencing of activities to promote quality interactions and learning to meet individual needs;
- The role and impact of media on interactivity and cognitive load;
- Teacher competencies and roles in enhancing interactivity in the learning environment whilst paying particular attention to individual student's needs;
- Using assessment to underpin and promote effective interactions in learning situations;
- Impact of culture and/or cultural factors in classroom interactions and learning;
- Cost benefit analysis of designing interactivity into courses whilst maintaining quality learning**.**

.

Ethical Distance Education Leaders

Brent Muirhead

Muirhead, B. (2003). "Ethical distance education leaders." *USDLA Journal*, 17(1). Available: http://www.usdla.org/html/journal/JAN03_Issue/article02.html

Editor's Note: This is Dr. Brent Muirhead's 16th submission in the past three years. Dr. Muirhead is not only a regular contributor, he is Journal Editor for Online Learning and Reader for refereed articles. His theme this month reflects the distress in the business and political sectors that also impacts education and distance learning. It is an opportune time to put our personal and political differences aside, to evaluate ourselves and revisit our responsibility to learners and the distance learning community.

The focus of this discussion will be on the importance of having ethical distance education leaders who creatively empower their employees to promote greater productivity. Educating adults is a vital business that requires capable leaders who are conscious of their need for continuous professional growth.

Why Do Companies Fail?

The American business failures of major Fortune 500 companies like Enron during the past year and a number of business scandals have generated an increase in public concern about the quality of today's leaders. A basic question people ask is, "Why do major companies fail?" Naturally, contemporary CEOs are quick to offer an assortment of excuses such as a weak economy or stock market problems.

Financial experts might look at the American economic system for possible reasons for the business failures. In capitalism philosophy, it is possible to find economic arguments to support the notion that only the companies that serve a useful purpose will survive. The demise of numerous dot-coms may reflect experimental business ideas that were not effective in serving their target market.

It is important to look at the business landscape in light of the recent economic trends. Charan & Useem (2002) note that the latest bear market created a situation that

> *"…26 of America's 100 largest corporations lost at least two thirds of their market value, including such blue chips as Hewlett-Packard, Charles Schwab, Cisco, AT&T, AOL Time Warner, and Gap. In the 1990 bear market, by contrast, none did, according to money management firm Aronson & Partners (p. 52)."*

Distance education schools can learn from the business mistakes made by other organizations within and outside of the educational arena. The rising costs and attrition rates for distance education students are well documented. Charan & Useem (2002) share ten reasons why even apparently successful organizations experience major employee firings, dramatic loss of stock values and other major negative events:

1. Leaders who are enamored by their success and fail to ask the tough questions.
2. Leaders who see no evil and ignore the negative reports about their company.
3. Leaders who have a greater fear of their boss than their competition.
4. Leaders who take excessive risks with their financial resources.
5. Leaders who have been consumed by making undisciplined company acquisitions.
6. Leaders who listen more to the Wall Street analysts than their employees.
7. Leaders who rely on quick fixes for major problems.
8. Leaders who foster a company culture that lacks accountability.
9. Leaders who cannot handle negative news and let the company fall into a death spiral.
10. Leaders who are led by a dysfunctional board.

For distance education, these translate to lack of administrative support, faculty negativity, overworked support staff, and high technology costs. The list contains a diversity of problems and highlights the importance of having leaders who create a system of accountability that represents the interests of major stakeholders. Ultimately, company oversight must come from leaders who are competent, visionary and ethical in their daily activities (Charan & Useem, 2002). This is equally true of education, and especially pertinent in the distance learning arena.

Ethical Leadership

The term ethics comes from the Greek word *ethos*, which has been translated into a variety of terms such as disposition, manners and character. Angeles (1992) defines ethics as

> *"1) the analysis of concepts such as ought, should, duty, moral rules, right, wrong, obligation, responsibility, etc., 2) the inquiry into the nature of morality or moral acts., and 3) the search for the morally good life (p. 92)."*

The definition reveals that the term ethics has a multidimensional nature that transcends simple descriptions.

The issue of ethics must be viewed within the context of contemporary cultural trends and attitudes. The constant stream of political and business scandals has created a "crisis of heroism." Today, a growing media cynicism towards contemporary leaders has fostered attitudes that deny the possibility of human greatness. It is not surprising that today's young people have embraced rock stars and professional athletes who represent the morally neutral heroes – people who have obtained their apparent social greatness due to talent that is independent from any moral virtue. In fact, some youth are attracted to a form of immoral heroism that admires those who freely practice sexual promiscuity, become financially rich through exploiting others, and people who use violence for achieving justice (Keys, 1995).

Americans might be cynical at times, but they still want leaders who operate by high ethical standards and are not consumed by making money. What is an accurate description of an ethical leader? Trevino, Hartman & Brown (2000) share that "a reputation for ethical leadership rests upon two essential pillars: perceptions of you as both a moral person and a moral manager." (paragraph 2) The definition begins with the executive being a moral person that has positive character traits (i.e. integrity), behaviors (i.e. concern for people) and decision making skills (i.e. objective). Also, the definition stresses the importance of leaders communicating values by being role models and developing a management system that consistently rewards acceptable behavior and disciplines unacceptable behavior. Ethical leaders provide the guiding force to move an organization toward greater accountability by matching words about values with visible actions that demonstrate respect for every employee (Trevino, Hartman & Brown, 2000).

The dark side of leadership is represented by individuals that rise to power and fame but their success is built on a faulty foundation. Al Dunlap is cited by business experts as an example of an unethical leader who lied about serious financial problems at Sunbeam and emotionally abused his employees. Dunlap was well-known for helping struggling companies become profitable, but his fame came at a high price. Dunlap earned the nickname "chainsaw" because he was known for firing thousands of employees to boost stock prices.

Byrne (1999) paints a tragic picture of Dunlap's business behavior,

> *"In Dunlap's presence, knees trembled and stomachs churned. Underlings feared the torrential harangue that Dunlap could unleash at any moment. At his worst, he became viciously profane, even violent. Executives said he would throw papers or furniture, bang his hands on his desk, and shout so ferociously that a manager's hair would be blown back by the stream of air that rushed from Dunlap's mouth. 'Hair spray day' became a code phrase among execs, signifying a potential tantrum (paragraph 4, under head dead computers)."*

Developing Trust: The Foundation of leadership

Ethical leadership does not arise out of a social vacuum. Rather, it follows from a lifestyle of a leader who considers his/her role as vital to the moral health of the organization. Yes, some leaders are not comfortable with the idea of being role models but they are ones regardless of their feelings. Maxwell (1998) notes that to build trust, a leader must exemplify competence, connection, and character (p. 58)." This is the essence of an ethical leader.

Distance education schools can cultivate ethical leadership and offer competitive academic programs without sacrificing their obligations to their employees. One of the greatest challenges that contemporary leaders face is demanding commitment from their employees without offering much long term security. The current economic environment lacks the stability to make many promises about long-term future employment. This sobering reality will demand making changes in governance strategies. It is time for more organizations to make political reforms that support stewardship principles while experimenting with ways to redistribute power and privilege. This is a visionary approach to leadership that is service oriented and built upon empowering employees to work as business partners. Block (1993) states:

> *"A governance based on stewardship's mixture of accountability with partnership, empowerment, and service will give us the means for taking experimental programs and pocketed successes we now have in our hands and making them more widespread and ingrained as a way of doing business (p. 22)."*

Personal Leadership Agenda

A serious ethical discussion should encourage individuals to make changes in their lives. It will require making a deliberate choice to plan and pursue a new set of ethical goals. Leaders must ask at least three basic questions for creating a new personal leadership agenda:

1. Ask yourself this question, what behaviors or attitudes do you wish to change?
2. What barriers do you face in making meaningful changes?
3. What support can you rely upon to help you make these changes?

The Seven Cs of Success

Morris (1994, p. 286) has developed seven principles of success that are quite useful in helping individuals to formulate new goals for their personal and professional lives.

1. We need a clear **conception** of what we want, a vivid vision, a goal or set of goals powerfully imagined.
2. We need a strong **confidence** that we can attain our goals.
3. We need a focused **concentration** on what it takes to reach our goal.

4. We need a stubborn **consistency** in pursuing our vision, a determined persistence in thought and action.
5. We need emotional **commitment** to the importance of what we're doing, and to the people with whom we're doing it.
6. We need a good **character** to guide us and keep us on a proper course.
7. We need a **capacity** to enjoy the process along the way.

The seven principles can be a good check list for leaders to develop a professional growth plan to create a new set of goals. A key question will always involve commitment to the new goals. How can leaders improve their level of commitment?

- Measure personal commitment by examining how much time and energy that you devote to something that you consider important in your life. Do your activities support your goals?
- Understand what goals are worthy of great personal sacrifices.
- Share your goals with others to help you become more dedicated to completing a project (Maxwell, 1999).

"But success landmarks are internal, not external. They mark changes in you –in your thinking and attitudes—that are reflected outwardly in how you act (Maxwell 1997, p. 145)."

Conclusion

Distance education leaders are challenged by living in a new era of economic realities. Americans have lost a degree of confidence in their leaders and institutions. Bronson (2003) observes that "we've been seduced by the idea that picking up the pieces and simply tweaking the formula will get the party started again. In spite of our best thinking and most searing experience, our ideas about growth and success are mired in a boom-bust mentality (p. 72).

Education is not immune from political interference, lack of support and understanding, indifference, greed, and other ills of our social systems. We see the problems of business and politics reflected in our universities, colleges, school systems, and governing boards, whether public or private, and in county, state and federal departments of education. We see lack of support and understanding for the needs of teachers and students; we see budgetary decisions based on political or financial gain, and we see the public trust subverted in a search for power.

Ethical leaders make a positive difference in lives of others because they are thinking and working for a common good. They are part of a learning organization. They are not concerned with status and power. They are servant leaders who foster trust and integrity. Their influence is positive and transcends their job. They create a good name for their academic or training institution. They establish honest and responsible relationships with the stakeholders – government, business, and community – public and private – organizations and individuals – and especially with teachers, students, parents, administrators, employees, and community leaders.

References

Angeles, P. A. (1992). *Dictionary of philosophy (2nd ed.)*. New York, NY: Harper Collins.

Block, P. (1993). *Stewardship: Choosing service over self interest.* San Francisco, CA: Berrett-Koehler Publishers.

Bronson, P. (2003, January). What should I do with my life? The real meaning of success---and how to find it. *Fast Company*, pp. 68-79.

Byrne, J. A. (1999, October 18). Chainsaw. *Business Week*. Issue 3651, pp. 128-149.

Retrieved from EBSCO December 29, 2002. http://www.apollolibrary.com/collections.asp

Charan, R. & Useem, F. (2002). Why companies fail. *Fortune*, 145 (11), pp. 50-62.

Keys, D. (1995). *True heroism: In a world of celebrity counterfeits.* Colorado Springs, CO: NavPress.

Maxwell, J. (1999). *The 21 indispensable qualities of a leader.* Nashville, TN: Thomas Nelson.

Maxwell, J. (1998). *The 21 irrefutable laws of leadership.* Nashville, TN: Thomas Nelson.

Maxwell, J. (1997). The success journey: The process of living your dreams. Nashville, TN: Thomas Nelson.

Morris, T. (1994). *True Success: A new philosophy of excellence.* New York, NY: G. P. Putnam's Sons

Trevino, L. K., Hartman, L. P., Brown, M. (2000). Moral person and moral manager: How executives develop a reputation for ethical leadership. *California Management Review*, Vol. 42 (4), pp.128-142. Retrieved from EBSCO May 15, 2002. http://www.apollolibrary.com/collections.asp

Writing for Academic Publication

Brent Muirhead

Muirhead, B. (2002). "Writing for academic publication." *USDLA Journal*, 16 (12). Available: http://www.usdla.org/html/journal/DEC02_Issue/article06.html

Editor's Note: There is always more to learn about writing. After a score of courses, I continue to learn by observing, listening, reading, and … writing. An idea does not look the same when you see it on paper. You edit it, sharpen it, reduce ambiguity, enrich meaning, add examples, and massage the format. Writing is both an art and a science. In this article, Brent Muirhead addresses fundamental aspects of planning and preparation for academic publication. I heartily endorse these for beginners and professionals alike. Incidentally, the same principles apply to editors and those who write Editor's Notes. DP.

Introduction

The process of writing for academic publication is a unique professional challenge. Individuals would like to write but are not quite sure how to get started. The author shall provide advice on how to develop a practical writing plan that will increase opportunities for publication.

Establishing a Writing Plan

A frequent question through the years has been what is the most difficult aspect of writing? Often, it involves simply getting started on a writing project because people often struggle with the initial steps. Individuals will offer an assortment of excuses for not writing for publication such as not having the time, my colleagues do not publish, it is not in my research area and my job description does not require writing. Perhaps, the deeper reason involves a personal awareness of deficient writing skills and a fear of rejection. It is important to face these concerns and realize that the self-confidence to be a successful writer will require taking some risks and developing a plan that will enhance the quality of their writing. The competition for publication is intense but the good news is there are specific steps that individuals can take to enhance their odds of getting articles published in journals and books (Henson, 1999).

The first step in the writing process should be to select a topic that will be informative and relevant to capture the attention of today's editors. There is no real formula for identifying a meaningful topic. Yet, the author has found that creative topics will flow from an individual's reading and studying habits. It is wise to have a diverse reading program that includes nonfiction books, journals and major newspapers such as the *New York Times*. Reading a variety of works offers a practical way to identify hot topics in a particular academic discipline and within the popular culture.

The reading of research reports requires critical reflection and systematic analysis to clearly identify the salient elements of the study. Locke, Silverman & Spirduso (1998) recommend reading with realistic discernment "small steps in improved understanding are the reasonable goal of most inquiry, not great leaps based on perfect studies.…If every study involves trade-offs and compromises in scope and design, the same is true in preparing reports. No journal article contains the full story. The constraint of space alone makes this inevitable (p. 54)."

The author usually begins with several potential topics and then decides what topic would best fit the journal's theme or type of articles. This is a crucial step because it is wise to investigate several journals to clearly identify which one offers the best possibility of being published. For instance, it is important to understand certain basic facts about the publication such as the percentage of articles that are written by free lance writers, the average length of time to peer review an article and the acceptance rate for submitted articles. This type of information is an effective way to start exploring what would be the best journal or magazine to pursue publication. Brogan and Brewer's (2003) *Writer's Market* is an example of books that examine potential publications. It offers practical advice and contact information for writers who are investigating places to submit their work. It is important to devote time to studying various publications before making a final decision on a topic and place of submission. Ray (2002) recommends asking the following questions:

- What is its purpose?
- What regular departments or features does it include?
- What seasonal material does it include?
- What range of freelance-written topics does it cover?
- What topics and articles have been recently published?
- What elements and features do the articles include?
- What writing techniques, structure, and organization do authors employ?
- How long are the articles?
- How deep is the information?
- How do articles and accompanying graphics appear?
- How formal or informal are the design, writing, and graphics? (paragraph 4)

The list of questions will help individuals to identify the top three or four potential journals or magazines that offer the best publication opportunities. The next step is to establish a series of short and long-term writing goals. It is essential that individuals create goals that help them continually write and practice their skills. The author writes letters to the editors on a variety of social issue to major newspapers such as *USA*

Today and the *New York Times* because they represent competitive writing situations. The *New York Times* will publish one letter every two months and they attract writers who are leaders in their respective fields. *USA Today* newspaper receives approximately125, 000 letters a year and has 2.2 million readers (Hoover's Online, 2002). Therefore, it is a real honor to be published with either of these newspapers.

Serious writers will share their knowledge and insights in a diversity of articles such as a literature review, reflections on a recently attended conference and book reviews. The articles can be creative and descriptive narratives that can reflect a good working knowledge of the literature. Usually, editors will invite individuals who have specific expertise in an academic area to review a recent book. Fahey (2001) recommends, "a book review should not just summarize the book, but should incorporate personal judgments. You should be polite even if you disagree with the author (and especially if you are just beginning your writing/teaching career) (paragraph 20)."

Authors occasionally experience a time where they lack ideas and they draw a blank. It is wise to realize that others can have this problem and take a healthy perspective on this issue. Skinner & Policoff, 1994 offer strategies to jump-start the writing process.

- Establish a writing routine that creates a specific time and place to write and encourages daily practice.
- Change your established writing schedule to a different time of the day.
- Read books and articles in your research area with renewed sensitivity because it can promote new ideas.
- Write a letter or poem that expresses your thoughts.
- Exercise or listen to music to help energize your creativity (Skinner & Policoff, 1994).

Develop Good Relationships with Editors

The key is to be continually writing and networking with other writers and editors at conferences and online newsgroups. There are numerous professional organizations that offer formal and informal formats to meet others who are involved in research projects and publication related activities. For instance, The International Forum of Educational Technology Society (IFETS) provides an online discussion platform for sharing information and networking with others (Fahey, 2001).

It is essential that writers cultivate good relationships with their editors by learning to be attentive to the publishing process. The author is an editor and it surprising how people will often neglect to provide updates on how they are progressing on an article. Also, individuals will miss promised deadlines and then decide not to write the article but not inform their editor. Unfortunately, some writers can operate in a manner that undermines their relationships with editors and it can diminish the possibility of having future writing opportunities.

> *"But, while editors may assign an article based on a query and subsequent exchanges, they may choose not to work with you again if you became lazy midway through a project, didn't respect their time, were difficult or time-consuming to communicate with, or didn't follow through on what was promised (Ray, 2002, final paragraph)."*

Conclusion

Editors are always looking for creative and relevant articles that will meet the needs of their readers. Writers should strive to develop positive communications patterns with their editors by submitting quality work, meeting promised deadlines and responding promptly to their e-mail or telephone messages.

The author has found that a writer's focus should not be on fears about their work being rejected. Rather, individuals need to be dedicated to producing excellent material that editors will want to publish. Writing for publication represents a wonderful opportunity to interact with the others and make a positive contribution to the academic community.

References

Brogan, K. S. & Brewer, R. (2003). *Writer's market.* Cincinnati, OH: Writers Digest Books.

Fahey, S. J. (2001). How to write academic articles for publication. Available: http://www.marquette.edu/aegs/advice/publishing.htm

Henson, K. T. (1999). Writing for professional publication: Keys to academic and business success. Boston, MA: Allyn & Bacon.

Hoover's Online (2002). Gannett Co. Available: http://www.hoovers.com/co/capsule/3 /0,2163,10623,00.html

Ray, D. S. (2002). Freelance article writing: Tips for establishing and maintaining good relationships with magazine editors. TECHWR-L. Available: http://www.raycomm.com/ techwhirl/ employmentarticles/happyeditor.html

Skinner, J. & Policoff, S. P. (1994). Writer's block—and what to do about it. *Writer,* 107 (11), 21-24.

Teacher-as-Researcher

Brent Muirhead

Muirhead, B. (2002). "Teacher-as-Researcher." *USDLA Journal,* 16 (9). Available: http://www.usdla. org/html/journal/SEP02_Issue/article07.html

Editor's Note: Dr. Muirhead provides an effective analysis and model for implementation of teacher research in the corporate university milieu. It is interesting that teachers are involved, not only with past and present technologies, but with future communication technologies as they are evolving.

Introduction

The concept of teacher-as-researcher is a popular idea that contemporary educational reformers have promoted through their books and articles. It is a perspective that views teachers as active participants in conducting research to enhance their working conditions, revise their curriculum, and assist in professional development planning.

Contemporary distance education schools have often stressed teaching over research activities. Yet, there is a growing awareness that current teaching practices need to be built upon a stronger body of research studies (Saba, 2000). Ultimately, schools will need to provide more support for their teachers to enable them to effectively pursue writing and research oriented activities.

Research Challenges

Today's distance educators who want to pursue research studies in their colleges and universities must overcome some unique challenges. Professional writing is often considered a secondary or minor activity to teaching. The organizational structure of distance education schools is designed to provide technical, curriculum and professional development support. Teachers are usually not financially rewarded for their academic publications.

The majority of today's online instructors have a full time job besides their online work. Distance educators must face the reality that they have limited amount of time to conduct research and write articles for journal publication. Today's distance educators and administrators must start placing a higher value on educational research. Contemporary research studies have the potential to make vital contributions in four areas:

- enhancing our knowledge of distance education issues
- improving teacher practices
- informing policy debates
- improving student and teacher research skills (Creswell, 2002).

Teachers must become more proactive and share the importance of research studies within distance education schools and within the larger virtual community. It is encouraging to observe that more schools are starting to take a greater interest in research. For instance, the University is of Phoenix does offer faculty the opportunity to earn money for their article publications. It is a positive affirmation that research and journal writing are valuable activities to the school. A research project may:

address gaps in knowledge by investigating an area of research that fills a void in existing information

expand knowledge by extending research to new ideas or practices

replicate knowledge by testing old results with new participants or new research sites

add voices of individuals to knowledge, individuals whose perspectives have not been heard or whose views have been minimized in our society (Creswell, 2002, p. 4).

Qualitative Research Methods

It is important to remember that the research question will provide the basis to select the appropriate methodology. Every research method presents a wide assortment of potential strengths and weaknesses. Historically, researchers have been theoretically divided in their preference toward quantitative and qualitative methods. The intellectual posturing over methodology has created unnecessary tension among the educators. There has been an academic bias against qualitative research that I have found to be somewhat irrational. Krathwohl (1993) wisely observed that modern "researchers need all the help they can get, and qualitative methods have an important and useful place among the research methods. All methods have strengths and weaknesses, our task is to learn when and where to capitalize and avoid weaknesses (p. 34)."

The qualitative research model is not linear but is interactive, inductive and open-ended. Maxwell (1998) relates that the activities of collecting and analyzing data, developing and modifying theory, elaborating or refocusing the research questions, and identifying and dealing with the validity threats are usually going on simultaneously, each influencing all of the others (p. 70)." Rather, the research design is intended to be flexible to provide a less restrictive format. According to Maxwell (1998) a good research design

effectively moves the project along by including five basic components:

1. purposes
2. conceptual context
3. research questions
4. methods
5. validity

Qualitative research involves an inductive process of descriptive data collection and analysis of real life events. A strong emphasis is given to understanding the individual's perception of reality through a variety of sources such as written documents, surveys and interviews. It is a participant centered paradigm that highlights the value of individual interpretations involving work, education and leisure experiences. Therefore, researchers will usually examine not one particular situation but a series of social interactions. Researchers will often pursue difficult subjective features of the social world that cannot be easily expressed in the form of numbers. Yet, some critics argue that the subjective approach makes qualitative data soft or intangible and too elusive to properly study. Qualitative advocates would respond that subjective events or life situations offer excellent opportunities for doing serious research. Naturally, the information gathering process is sometimes fluid to enable the researcher to effectively meet changing circumstances without sacrificing scientific investigation standards (Neuman, 1997).

The educator must realize that the qualitative approach involves a major investment in time. Intense preparation and planning is necessary to create and develop a research project. Qualitative researchers must become familiar with the literature surrounding the problem statement. The researcher must carefully read and study the literature to be equipped to be able to discern what data methods to select. Additionally, researchers must study large amounts of information and learn to separate the important from the trivial data (Leedy & Ormrod, 2001).

When should an individual select a qualitative approach to their investigation? The qualitative study should assist the researcher in one or more of the following ways:

Description They can reveal the nature of certain situations, settings, processes, relationships, systems or people.

Interpretation They enable the researcher to (a) gain insights about the nature of particular phenomenon, (b) develop new concepts or theoretical perspectives about the phenomenon, and/or (c) discover that problems exist within the phenomenon.

Verification They allow a researcher to test the validity of certain assumptions, claims, theories, or generalizations within real-world contexts.

Evaluation They provide a means through which a researcher can judge the effectiveness of particular policies, practices, or innovations (Peshkin, 1993, pp. 148-149).

Action Research

Distance educators who are interested in developing research projects should consider the advantages of action research. Often, action research projects are less time consuming than qualitative methods. Kemmis and McTaggart (1993) state that

> *"Action research is deliberate, solution-oriented investigation that is group or personally owned and conducted. It is characterized by spiraling cycles of problem identification, systematic data collection, reflection, analysis, data-driven action taken, and, finally, problem redefinition. The linking of the terms "action" and "research" highlights the essential features of this method: trying out ideas in practice as a means of increasing knowledge about and/or improving curriculum, teaching, and learning (p.1)."*

Distance educators can use action research projects to obtain accurate information about their schools. A major problem in the distance education movement has been the lack of research studies on the teaching and learning process. Research data is needed to help foster site-based decision making that will provide appropriate educational changes that will enhance student learning (Saba, 2000). Action research reflects four major tendencies:

- cyclic -- similar steps tend to recur, in a similar sequence;
- participative -- the clients and informants are involved as partners, or at least active participants, in the research process;
- qualitative -- it deals more often with language than with numbers; and
- reflective -- critical reflection upon the process and outcomes are important parts of each cycle (Dick, 2000, para 3).

The four tendencies reflect the importance of action research as a very fluid and flexible process. Now, the cycles of steps provide a framework for researchers to test their ideas and refine the focus of their study. Therefore, the action research process requires critical reflection to offer insights that are responsive to the emerging data. It enables the teacher to operate as researcher who takes ownership in designing and conducting the investigation (Mills, 2000). Often, action research involves a collaborative project that challenges colleagues to design and conduct their studies. Johnson (1993) states that the "research study team provides support and a forum for sharing questions, concerns, and results. Teachers advise each other and comment on the progress of individual efforts (para 6)." Teachers engaged in action research enjoy the benefit of cultivating a professional dialog with their colleagues. It helps educators create a basis for professional growth and school improvement.

Suggestions for promoting research studies in distance education schools:

- Provide workshops on grant writing for teachers.

- Create a monthly newsletter and quarterly journal that will offer a place for graduate students and teachers to publish their work.
- Provide financial incentives to teachers who publish articles in journals.
- Provide academic support for individuals conducting research within their schools.
- Provide financial support for teachers who want to share their papers at technology conferences.

Conclusion

Educational research can provide an effective way to address vital issues in the distance education community such as examining the quality of interaction in online classes. Saba (2001) observes that research studies ". . . have further revealed the complexity of distance education, indicating the many variables involved in any instructional setting, not to mention other elements involved in distance education such as social, economic, and global issues affecting the field (p.7)." It is time for distance education leaders to make research a higher priority in their organizations and provide support for the concept teacher-as-researcher.

References

Creswell, J. W. (2002). Educational research: Planning, conducting, and evaluating quantitative and qualitative research. Upper Saddle Creek, NJ: Pearson Education.

Dick, B. (2000) A beginner's guide to action research. Retrieved August 15, 2002 from http://www.scu.edu.au/schools/gcm/ar/arp/guide.html

Johnson, B. (1993). Teacher-as- researcher. Washington, D.C.: ERIC Clearinghouse on Teacher Education. (ERIC Document Reproduction No. ED 355 205). Retrieved August14, 2002 from http://www.ed.gov/databases/ERIC_Digests/ed355205.html

Kemmis, S., & McTaggart, R. (1982). The action research planner. Victoria, Australia: Deakin University Press. In Johnson, B. (1993). Teacher-as- researcher. Washington, D.C.: ERIC Clearinghouse on Teacher Education. (ERIC Document Reproduction No. ED 355 205). Retrieved August 14, 2002 from http://www.ericdigests.org/1993/researcher.htm

Krathwohl, D. R. (1993). Methods of educational and social science research: An integrated approach. White Plains, NY: Longman.

Leedy, P. D. & Ormrod, J. E. (2001). *Practical research: Planning and design* (7th ed.). Upper Saddle River, NJ: Merrill/Prentice Hall.

Maxwell, J. P. (1998). Designing a qualitative study. In L. Bickman & D. J. Rog (Eds.), Handbook of applied social research methods (pp. 69-100). Thousand Oaks, CA: Sage Publications.

Mills, G. M. (2000). Action research: A guide for the teacher researcher.Upper Saddle Creek, NJ: Merrill.

Nueman, W. L. (1997). Social research methods: Qualitative and quantitative approaches (3rd Ed.). Boston, MA: Allyn & Bacon.

Peshkin, Alan. (1993). The goodness of qualitative research. *Educational Researcher***,** *22*(2), 23-29. In Leedy, P. D. & Ormrod, J. E. (2001). *Practical research: Planning and design* (7th ed.). Upper Saddle River, NJ: Merrill/Prentice Hall.

Saba, F. (2000). Research in distance education: A status report. International review of Research in Open and Distance Learning, 1 (1), 1-9. Retrieved August 14, 2002 from http://216.239.51.100/search?q=cache:39UEJCOpqv4C:www.irrodl.org/content/v1.1/farhad.pdf+research+in+distance+education+a+status+report&hl=en&ie=UTF-8

Salmon's E-tivities: The Key to Active Online Learning

Brent Muirhead

Muirhead, B. (2002). "Salmon's E-tivities: The key to active online learning" *USDLA Journal*, 16 (8). Available: http://www.usdla.org/html/journal/AUG02_Issue/article02.html

Editor' Note: *Dr. Muirhead's excellent overview and Dr. Salmon's book warrant in depth consideration by our Distance Learning community, both researchers and practitioners. Herein lies a rare combination of insight, research, and creative implementation.*

Introduction

Today's online instructors face curriculum challenges due to the absence of face-to-face interaction with their students. Currently, the majority of distance education schools must rely upon text based instructional strategies. Distance educators struggle with trying to develop activities that will promote interaction and reflective thinking in their classrooms. Gilly Salmon's latest book (2002) ***E-tivities: The key to active online learning*** addresses the need to develop relevant online instructional activities that can be used in a diversity of academic disciplines. The term "E-tivities" refers to a conceptual framework for discussing interactive learning activities.

The Importance of Learner-Centered Education

The literature on distance education affirms the importance of having learner-centered instruction to effectively meet adult learning needs. Unfortunately, distance education programs struggle in their efforts to provide learner-centered degree programs. Sptizer (1998) notes that " . . . technical, administrative, political, and financial considerations often dictate the kind of system that is designed. Very rarely is the design of distance learning system learner-focused (p. 54)."

New York University spent $25-million to invest in seven online courses in a for-profit venture called NYUonline. Administrative officials decided to stop the educational venture because their program was too flawed to repair. The business plan contained a number of major weaknesses such as neglecting to have more faculty members involved in the development of the project. Carlson & Carnevale (2001) note that " . . . a recent administrator for NYUonline said the company did not adequately survey the market before trying to produce courses. Instead, NYUonline created online courses without determining whether they were what companies wanted for their employees. As a result, NYUonline had trouble finding customers (p. A31). Unfortunately, New York University officials had neglected to survey their market to clearly identify what employees needed for their professional and personal growth.

Hopefully, today's distance education schools can learn from the business and educational mistakes that that caused the downfall of NYUonline. Spitzer (1998) has offered practical advice for creating a successful contemporary distance learning programs:

Focus on the customer. If distance education is going to be successful and widely used, we must put more emphasis on students as 'customers.'

Minimize pain. When it comes to the transition to distance learning; low pain is always the best.

Be context-sensitive. Many learners require personal contact, especially in groups that have become accustomed to it, and regional 'coordinators' can provide a personal touch.

Use appropriate technology. I believe in using the most cost-effective technology.

Be sure that students have the prerequisite capabilities to succeed. I have personally observed many distance learning programs that used advanced technology without adequately preparing students for it.

Provide adequate technical support. Nothing will dampen the incipient enthusiasm of your target audience like early technical glitches that can't be promptly resolved!

Give learners (and instructors) time to adjust. Some believe that the best way to get people to use distance learning technology is to throw them into the deep water. I don't agree. Some may swim, but my experience is that many will sink.

Communicate intensively. A key to success of any distance education program is a high level of communication.

Understand the needs of all the stakeholders. For example, you will probably need the enthusiastic support of course developers, technical support persons, administrativestaff, etc. on your distance learning 'team.'

Create a positive, motivating environment. There is no substitute for a positive, caring, nonthreatening environment (p. 55).

Salmon's Five-Step Model

Spitzer's (1998) list highlights some of the essential ingredients that are necessary to develop online schools that have high academic standards and individualized instruction. A powerful underlying theme of the list is the importance of the human element in the educational process. The online instructor continues to play a major role in the success of any academic program because they can personalize learning experiences for their students. Additionally, contemporary online instructors realize that distance education is a "work in progress" that continues to evolve with time and experimentation. Yet, the basic trial and error methodology is a very time consuming way to identify effective teaching practices. Instructors really need research-based teaching strategies that have demonstrated that they have effectively worked in a computer-mediated environment. Salmon's (2002) *E-tivities: The key to act*ive *online learning* offers an excellent resource for meaningful curriculum activities for instructors who operate in a diversity of online environments. The book is built upon conducting action research projects involving computer-mediated education at the Open University Business School, United Kingdom.

Salmon's (2002) recent studies have added more depth to her innovative five stage model that offers practical advice and ideas for new and veteran online instructors. The five-step model reflects a positive progression in the quality and intensity of interaction between students and between students and their teachers. The online instructor's role is multidimensional and changes at different stages depending upon the student needs and circumstances within each class. Therefore, the instructor has to use discernment about their teaching strategies to effectively meet student learning needs.

Step 1 Access & Motivation: involves helping new students become familiar with the online setting by learning how to use the course software and having instructional activities that are relevant. Salmon (2002) reminds instructors that "E-moderators should not be complacent about entry level skills to online learning! There are still many novices 'out there' (p. 24)." It is important to address the technical issues and the underlying feelings and emotions that students have about the learning online. People can become quite frustrated over their technological problems. It is important to help students handle these negative emotions and work with the technical staff to resolve the issues. Students can feel somewhat embarrassed by their struggles in learning how to use the software. Instructors can alleviate the student's anxiety by sharing email messages that are supportive and optimistic in tone. Additionally, instructors can share email notes that highlights the purposes of their assignments. Student motivation is partially dependent on their perspective on their ability to complete the class work. Instructors can enhance student confidence by starting with less difficult assignments. It helps students to experience more academic success before taking on more difficult work.

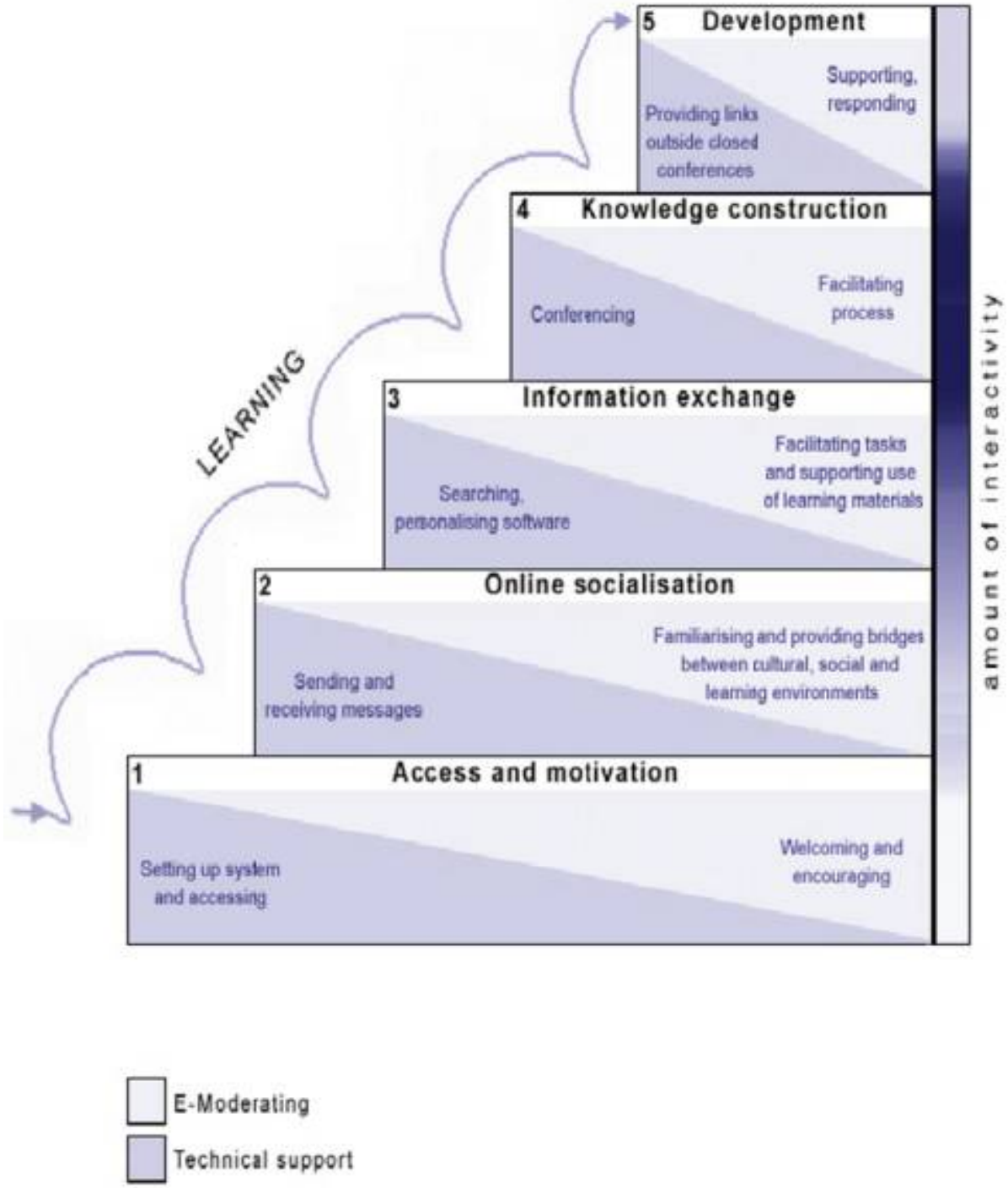
Step 2 Online Socialisation: The second stage involves building the foundation for a vibrant online community by using short e -tivities that cultivate trust between students. Student relationships will grow during group and individual work as student share personal stories and ideas. Then, as students become more comfortable with the online culture they can move into sharing and exchanging information. Instructors can introduce e-tivities that explore cultural differences, recognize the value of diversity in an online community and help students discuss differences in educational expectations.

Step 3 Information Exchange: Salmon (2002) warns that "it is common for novice e-moderators to spend huge effort and time in trying to encourage contribution at stages 1 and 2, only to find themselves largely logging on to read their own messages. If e-moderators are too rigorous, they soon burn out! (p. 36)." During the third stage, instructors should utilize online e-tivities that promote discovery learning. Students should have assignments that give them opportunities to explore and share knowledge in class discussions. Instructor will realize that this stage is completed when students are successfully processing information and become more proactive in their learning.

Step 4 Knowledge Construction: The advent of this stage marks the development of e-tivities that focus more on helping students use higher order thinking skills and become independent learners. Students must have projects that help them to learn how to construct their own personal knowledge. Also, instructors need to be intentional in their online remarks and aim to enhance their student's critical thinking skills. Students will start moving from being merely knowledge transmitters to creators or authors of innovative ideas. It is an exciting time in the online class as students are challenged by e-tivities that require working on problems that have multiple interpretations.

Step 5 Development: This stage represents the development of new cognitive skills that enable students to learn to monitor and evaluate their thinking. Students take personal ownership of their learning experiences and assist students within their study groups and new students to the class. Instructors select e-tivities that encourage reflective thinking by sharing problem-based situations or scenarios that require interpretation information, creativity and a willingness to test assumptions.

Salmon's (2000) Five-Step Model



Characteristics of E-tivities

It is important that online instructors have the appropriate educational resources to individualize their lesson plans and course materials for their classes. Salmon (2002) provides a host of educational resources (i.e. scenarios, ideas for reflective dialog and professional development activities) in *E-tivities: The key to act*ive *online learning* that can be used by instructors in their classes. The e-tivities are designed to engage online students in meaningful work that captures their imagination and challenges them to grow.

There are five vital features to e-tivities:

1. A small piece of information, stimulus or challenge (the 'spark')
2. Online activity which includes individual participating posting a contribution
3. An interactive or participative element-such as responding to the postings of others
4. Summary, feedback or critique from an e-moderator (the 'plenary')
5. All the instructions to take part are available in one online message (the 'invitation') (Salmon, 2002, p. 13).

Conclusion

Salmon's (2002) research provides a solid foundation for relevant and purposeful online instructional activities. The Five-Step Model offers an excellent paradigm for combining theory and practice into the teaching and learning process. It affirms the importance of the having teachers who are prepared to share meaningful activities in a learner-centered atmosphere.

NOTE: Dr. Salmon's book, ***E-tivitites: The key to active online learning***, is available in the United States at Barnes & Noble.

References

Carlson, S. & Carnevale, D. (2001). Debating the demise of NYUonline. Chronicle of Higher Education. 48 (16), pA31. Retrieved from EBSCO host March 3, 2002. http://www.apollolibrary.com/collections.asp

Salmon, G. (2002). *E-tivities: The key to act*ive *online learning.* London: Kogan Page.

Salmon, G, (2000). *E-Moderating: The key to teaching and learning online.* London: Kogan Press.

Spitzer, D. R. (1998). Rediscovering the social context of distance learning. *Educational Technology*, 38 (2), 52-56.

Promoting Online Interaction in Today's Universities and Colleges

Brent Muirhead

Muirhead, B. (2002). “Promoting online interaction in today's universities and colleges.” USDLA Journal, 16 (7). Available: http://www.usdla.org/html/journal/JUL02_Issue/article04.html

Editor’s Note: *This month, our Contributing Editor, Dr. Brent Muirhead summarizes key points about interaction in online learning. A variety of instructional strategies increase participation and learning.*

Introduction

As a faculty trainer and mentor for teacher candidates at the University of Phoenix (UOP), the author appreciates the anxious feelings that new teachers feel about their first online class. Naturally, the new teachers are working hard to develop their skills to meet the challenges of sharing information in cyberspace. It is important for today’s online instructors to have a clear understanding of their role in the teaching and learning process. The author will focus on teaching practices that promote interaction and foster a positive learning environment.

Meeting Student Learning Needs

The rapid growth of distance education schools should not blind us to the fact that online learning is not for every student or teacher. Their might be a variety of reasons for individuals not wanting to teach or take online classes. For instance, students who have trouble with personal discipline might not feel comfortable working online. Additionally, students and teachers might enjoy the traditional classroom experience more than the online environment (Kearsley, 2002).

It is important to acknowledge that online teaching is both an art and science. Each new class challenges instructors to reflect on their teaching strategies and consider the need to make changes. Instructors must develop relevant curriculum plans that can effectively meet student learning needs for their personal and professional development. Philips (2002) relates, “while much e-learning buzz has focused on the wonders of technology the real challenges associated with e-learning today lie decidedly on the softer side. Whether or not e-learning "takes" is a question that the learners, not the technologists, will ultimately answer (paragraph 3).”

Contemporary online instructors must continually upgrade their courses to help prepare students for current and future jobs and educational opportunities. Nichols (2001) highlights six imperatives for educators in the 21st Century:

Increased capacity and efficiency - through enabling institutions to cater for the learning of a relatively large number of students at once.

Improved effectiveness - by encouraging deep learning approaches and the adaptation of knowledge to the real world.

Easy accessibility - by removing distance barriers and catering for a variety of learners' prior educational experience, physical abilities, and time commitments /lifestyles.

A competitive mindset - education with the potential to be offered internationally, within industry, and at a distance; providing more choice and convenience for the student.

A resource-based emphasis - enabling more student control over what, where, when and how they study and permitting non-linear learning; and

The personal touch - with more interaction between students and between individual student and tutor, enabling a degree of customization and the pursuit of individual students' learning goals in addition to the prescribed course learning outcomes (pp.13-14).

Interaction in Online Classes

It is interesting that Nichols (2001) notes the need for more online interaction between the instructors and their students. Ultimately, the primary challenges facing today’s instructors are not technological but involve the issue of social interaction. Obviously, there are a number of vital technological issues that require serious attention. Yet, the larger problems will residue with instructors who are striving to develop dynamic online dialogs and promote meaningful interaction within their classes (Kolluck, 1998).

Research literature on interaction or interactivity has highlighted the complexity of this educational issue. Wager (1994) argues that a practical description of interaction must acknowledge that it involves investigating four educational contexts: learning theory, instructional theory, instructional design, and instructional delivery. Moore (1989) tries to take a more basic approach by stressing that effective online classes will have three types of interaction:

1. learner-content
2. learner-instructor
3. learner-learner

Each type of interaction plays a role in the entire educational process. Historically, traditional classroom environments have stressed the content-centered educational model that relies upon a teacher-centered approach to learning. In contrast, distance education schools emphasize self-directed

learning activities that are designed to help students understand the subject matter. It is a learner-centered instructional approach that encourages students to develop autonomy, independence in their study habits and take personal responsibility for their learning (Mason & Kaye, 1990).

Teachers, administrators and instructional designers recognize the value of learner control but raise questions about the ability of students to structure their own learning experiences to meet course objectives. Instructors can allow their students to experiment with some assignments to help them gain confidence in their abilities and promote individualization of course work. Saba (1998) observes that "the success of distance education, to a great degree, will depend on the ability of educational institutions to personalize the teaching and learning process. Students should be given the chance to assess their comfort with the level of structure while learning at a distance and decide to what extent they need direct contact with the instructor (p.1)."

There are a host of benefits to having interactive computer-mediated learning. A major advantage is that students appreciate and enjoy the learning process to a greater degree when they have the opportunity to freely share with their instructor and colleagues. Milheim (1995) cites six major benefits to interactive learning:

1. Increased student interest,
2. Higher cognitive processing,
3. Development of cooperative learning skills,
4. Teacher involvement,
5. Curriculum integration, and
6. Teacher/student collaboration (p. 227).

Suggestions for Enhancing Online Interaction

Instructors play a key role in setting the "emotional tone" for their computer-mediated interactions. The literature constantly refers to the need for instructors to establish a framework that enables students to be active, on-line participants who share freely with both their peers and instructors. Therefore, educators must cultivate their online communication skills to effectively create a learning climate that is compatible with a diversity of students. Contemporary online students will vary greatly in their level of cognitive maturity and computer skills. Shih & Cifuentes (2001) note that "in addition to learning how to teach online, teachers need to be prepared to address the needs of students from diverse cultures (p. 8)."

A major challenge for today's online instructors involves creating a consistent level of interaction that fosters academic learning and cultivates a community atmosphere. It will require developing strategies that provide guidance and instruction for individuals and student groups. For instance, the instructor must decide how often to provide specific feedback on student work. At the University of Phoenix, instructors are expected to provide weekly grade reports for their students. The instructor should share their grading policies in their syllabus. It helps students to know how often to expect feedback on their work offer possible insights on how to improve the quality of their work.

Collison, Elbaum, Haavind & Tinker(2000, p. 49) shares eight facilitator tasks that encourage relevant online work and foster interaction:

1. Leading introductory, community-building activities
2. Providing virtual 'hand holding' to the digitally challenged
3. Acknowledging the diversity of participants' backgrounds and interests
4. Infusing personality with tone, graphics and humor
5. Maintaining a nurturing pace of responding
6. Keeping up with a pace set
7. Organizing posts and discussion threads
8. Balancing private email and public discussion.

The eight tasks reveal the need for instructors to take a comprehensive view of interaction by making it a primary objective within the curriculum. Students want intellectually and emotionally engaging dialogs that address their needs.

The author offers several practical suggestions for encouraging interaction in online classes.

Biographical Posts

Research studies support the practice of having instructors and their students share biographical posts during the first few days of class. An informative biography will highlight both professional and personal data that offers insights into the individual's life.

It is simple procedure that can humanize the online class by helping students learn more about their teacher and colleagues. Students will use the biographical posts as a way to have a reference point to communicate during the course.

Positive Affirmation of Student Work

Instructors can promote greater online participation by affirming their students' abilities and knowledge. The teacher can make positive comments about an individuals' expertise in a public forum such as a newsgroup and through private email messages. The key is to be sincere and share positive comments with every student in the class. Adult learners appreciate being recognized for their accomplishments and online classes offer numerous opportunities for instructors to affirm quality work.

Integrate Stories into the Class Discussions

Online students want classes that stress the human side of learning. The online environment can be lonely at times and students want to get to know their teachers and classmates. The author has found that students really enjoy stories from the teacher's life because they make the class more personal. It is exciting to observe that stories can vary depending upon the need of the class. In a doctoral research class, it could be a good opportunity for the instructor to share how they arrived at their dissertation topic. The wise instructor will use stories to generate lively discussion within the class. The author has shared the following humorous story during online graduate classes.

At the start of a new semester at the University of Northern Iowa, I seated myself in the front row in a class of 350 students. The professor began sharing that the course would be extremely difficult and the auditorium became totally quiet. After a few minutes, he paused and stated that if anyone felt uncomfortable with his class requirements, it would be a good time to leave. Just at that moment, I realized that I was in the wrong class. I stood up and started to head for the door and the entire class cheered as they watched me leave the room.

Provide Student's with Flexibility

Instructors must be careful not to provide excessive structure to their classes that eliminates the potential for students making critical decisions about their assignments. The term flexibility refers to making the learning more relevant to the student's needs or circumstances. The instructional emphasis is to make the learning experiences more individualized. Collis (1998) observes that "these relate to time flexibility, content flexibility, entry and completion flexibility, instructional-approach flexibility, learning-resource flexibility, technology-use flexibility, interactivity and communication flexibility, course-logistics flexibility, as well as location flexibility (p. 376)."

Online instructors can demonstrate flexibility by encouraging students to adapt their assignments to align with their work responsibilities. Obviously, the student selected work or paper topics should support course learning objectives. Also, teachers can encourage students to help them identify appropriate additional resources to meet diverse learning needs. The principle of student-centered instruction supports the idea of flexibility because students must learn to take charge of their education to become self-directed learners.

Conclusion

Today's online teachers can promote interaction in their classes by utilizing a diversity of instructional strategies. Teachers set the emotional and intellectual tone for their classes. They must make plans to consistently integrate interaction into their learning activities. Then, their virtual classes will be dynamic places where students enjoy studying with others.

References

Collis, B. (1998). New didactics for university instruction: Why and how? *Computers & Education,* 31, pp. 373-393.

Collison, G., Elbaum, Haavind, S., & Tinker, R. (2000). *Facilitating online learning. Effective strategies for moderators.* Madison, WI: Atwood Publishing.

Kearsley, G. (2002). Is online learning for everybody? *Educational Technology,* 42 (1), pp. 41-44.

Kollock, P. (1998). Design principles for online communities. *PC Update* 15 (5): 58-60.

Retrieved from the World Wide Web June 2, 2002. Available: http://www.sscnet.ucla.edu/soc/faculty/kollock/papers/design.htm

Mason, R. & Kaye, T. (1990). Toward a new paradigm for distance education. In L. M. Harasim (Ed.), *Online education: Perspectives on a new environment* (pp. 15-30). New York, NY: Praeger.

Milheim, W. D. (1995). Interactivity and computer-based instruction. *Journal of Educational Technology Systems,* 24 (3), pp. 225-233.

Moore, M. G. (1989). Three types of interaction. In M. G. Moore, MG. & Clark G. C. (Eds.). *Readings in principles of distance education* (pp. 100-105). University Park, PA: Pennsylvania State University.

Nichols, M. (2001). *Teaching for Learning.* New Zealand: Traininc.co.nz

Philips, V. (2002). Why does corporate e-learning fail? *Virtual University Gazette.*

Retrieved from the World Wide Web June 1, 2002. Available: http://www.geteducated.com/vugaz.htm

Saba, F. (1998). Enabling the distance learner: A strategy for success. *Distance Education Report.*

Shih, Y. C. & Cifuentes (2001). One tale of why and how to teach and learn online internationally. *TechTrends,* 45 (6), pp. 8-13, 46.

Wagner, E. D. (1994). In support of a functional definition of interaction. *The American Journal of Distance Education,* 8 (2), pp. 6-29.

Salmon's Research

Brent Muirhead

Muirhead, B. (2002). "Salmon's research." *USDLA Journal*, 16 (5). Available: http://www.usdla.org/html/journal/MAY02_Issue/article02.html

Editor's Note: *Brent Muirhead has kindly agreed to submit a monthly item of special interest. This commentary fits well with the Salmon article because it spells out the five stage model and the role of the e-Moderator.*

Introduction

Contemporary distance education schools are striving to have the most effective educational programs that encourage a dynamic combination of being flexible, individualized, personally and professionally challenging. The rapid growth of distance education schools has created an increasing demand for training today's online instructors. Unfortunately, many online teachers often begin working with limited experience and training in distance education. Gilly Salmon (2000) offers excellent descriptive information on the essential competencies that are needed by today's online instructors in her book *E-moderating: The key to teaching online*. The focus of this discussion is to highlight a portion of Salmon's research that offers superb insights into the online teaching and learning process.

Importance of Training Online Instructors

Contemporary online instructors have a tendency to depend upon "intuition." The intuition teaching method of learning is quite time consuming and frustrating because individuals must learn by trial and error. A review of research studies on computer-mediated graduate classes reveals that the quality of instruction varies from class to class within a school. Students indicate that one teacher will provide a class structure that promotes good dialog and provide consistent teacher feedback on their work Yet, in another online class; students will share stories of teachers who provided little interaction. For instance, one study respondent related that "I have tutors who do little more than respond 'good job' to my posts, tutors who haven't responded at all, and tutors who have taken a great deal of time to post a meaningful, thoughtful-provoking response (Muirhead, 1999, p. 54)."

Salmon's Research

Salmon (2000) has extensive online experience as a trainer of instructors for the Business School at the Open University (United Kingdom). The Open University has been an international leader in experimenting with new educational methods and ideas. Salmon offers remarkable insights from her studies on Computer Mediated Conferencing (CMC) at the Open University. Research findings were based on a combination of content analysis of online communication of students and teachers, focused group work and testing and evaluation of a new teaching and learning model.

Today's online instructors are challenged by a growing diversity of students who have a variety of expectations, learning styles, computer and communication skills that influence their online participation in learning communities. An important question for instructors is how can they effectively enable students to become active self-directed learners who will enjoy working with others? Salmon's (2000) studies have produced a five stage model to help train and prepare teachers for online work:

1. Access and motivation
2. Online socialization
3. Information exchange
4. Knowledge construction
5. Development

The five-step model reflects a positive progression in the quality and intensity of interaction between students and between students and their teachers. The online instructor's role is multidimensional and changes at different stages depending upon the student needs and circumstances within each class. Stage 1 involves helping new students become familiar using the software of the computer-mediated classes. Students can experience some technical problems that must resolve before they are able to participate online. Then, it is vital that instructors welcome the students to the class and offer assistance to help them feel at ease. Students can feel somewhat embarrassed by their struggles in learning how to use the software. Instructors can alleviate the student's anxiety by sharing email messages that stress they are supportive and optimistic in tone. Therefore, it is important to know the "audience" which is constantly changing from class to class.

For instance, why are some students just browsing or staying on the fringes of the class dialog? Salmon (2000) observers that even the "lurkers" or browsers are learning because they might be the sponges that take the information. Instructors should spend time getting to know their students to discover the reasons behind their hesitancy to make a significant contribution to their classes. Perhaps, some people lack confidence (Stage 2) and it important to give these individuals time to read and enjoy the contributions of their classmates. Then, as students become more comfortable with the online culture they can move into sharing and exchanging information (Stage 3).

The advent of Stage 4 affirms the importance of instructors becoming more intentional in their online remarks. Instructors need to weave their student's contributions into

creative narratives that highlight course principles and theories. Instructors will notice a definite change in their students who move from being merely knowledge transmitters to creators or authors of innovative ideas.

Salmon (2000) encourages instructors to develop online assignments and interactions that foster critical thinking skills. Stage 5 is the highest level of learning and students are taught to use higher order thinking skills. Students are challenged to demonstrate reflective thinking by interpreting information at a deeper level. In fact, students will begin to acquire new cognitive skills and learn to monitor and evaluate their thinking. At this stage, instructors will need to devote time to creating a learning environment that fosters reflective online dialog.

E-Moderator Online Competencies (Salmon 2000, p. 41)

QUALITY	1. CONFIDENT	2. CONSTRUCTIVE	3. DEVELOPMENTAL
Understanding of online process	Confident in providing a focus for conferences, intervening, judging participants' interest, experimenting with different approaches, and being a role model	Able to build online trust & purpose; to know who should be online and what they should be doing	Ability to develop & enable others, act as catalyst, foster discussion, summarize, restate, challenge, monitor understanding and misunderstanding, take feedback
Technical skills	Confident in operational under-standing of software in use as a user; reasonable keyboard skills; good access	Able to appreciate the basic structures of CMC, and the WWW and Internet's potential for learning	Know how to use special features of software for e-moderators, e.g. controlling, archiving
Online communication skills	Confident in being courteous, polite, and respectful in online (written) communication	Able to write concise, energizing, personable online messages	Able to engage with people online (not the machine or the software)
Content expertise	Confident in having knowledge and experience to share, and willing and able to add own contributions	Able to encourage sound contributions from others	Able to trigger debates by posing intriguing questions
Personal characteristics	Confident in being determined and motivated as an e-moderator	Able to establish an online identity as e-moderator	Able to adapt to new teaching contexts, methods, audiences & roles
QUALITY	**4. FACILITATING**	**5. KNOWLEDGE SHARING**	**6. CREATIVE**
Understanding of online process	Know when to control groups, when to let go, how to bring in non-participants, know how to pace discussion and use time on line.	Able to explore ideas, develop arguments, promote valuable threads, close off unproductive threads, choose when to archive, build a learning community	Able to use a range of CMC conferencing approaches from structured activities to free wheeling discussions, and to evaluate and judge success of conferences
Technical skills	Able to use special features of software to explore learner's use e.g. message history	Able to create links between CMC and other features of learning programs	Able to use software facilities to create and manipulate conferences and to generate an online learning environment
Online communication skills	Able to interact through e mail and conferencing and achieve interaction between others	Able to value diversity with cultural sensitivity	Able to communicate comfortably without visual cues
Content expertise	Carry authority by awarding marks fairly to students for their CMC participation and contributions	Know about valuable resources (e.g. on the WWW) and refer participants to them	Able to enliven conferences through use of multi media and electronic resources
Personal characteristics	Show sensitivity to online relationships and communication	Show a positive attitude, commitment and enthusiasm for online learning	Know how to create a useful, online learning community

The research studies at the Open University have provided the data to develop a comprehensive chart of five e-moderator or facilitator competencies:

1. Understanding of online process
2. Technical skills
3. Online communication skills
4. Content expertise
5. Personal characteristics (Salmon, 2000).

The chart provides an excellent overview of the five instructor competencies. It can be effectively used in a variety of ways: instructional design specialists that are creating online curriculum materials help assist distance educator administrators who are recruiting online personnel, trainers of online faculty members who need guidelines to help them make accurate assessments and individual instructors who want to develop a professional development plan.

Conclusion

Salmon's (2000) work is an outstanding example of how to apply research studies to contemporary educational issues. Ultimately, today's online instructors are still learning about the nature of teaching in virtual classrooms. Salmon has provided valuable insights to help instructors who want to create classes that are relevant, friendly and intellectually challenging for their students.

References

Muirhead, B. (1999). Attitudes toward interactivity in a graduate distance education program: A qualitative analysis. Parkland, Fl.: Dissertation.com.

Salmon, G. (2000). E-moderating: the key to teaching and learning online. London: Kogan Page Limited.

Interactivity Research Studies

Brent Muirhead

Muirhead, B. (2001). "Interactivity research studies." *Educational Technology & Society*, 4 (3). Available: http://ifets.ieee.org/periodical/vol_3_2001/muirhead.html

Abstract

Today, educators have raised important questions about the quality of interactivity or interaction between students and between teachers and their students. The author has investigated interactivity, completed a doctor's degree from a distance education school and teaches online for the University of Phoenix. The discussion highlights interactivity research studies, outlines vital online teacher competencies and recommends the need for research studies into professional development for online teachers.

Keywords: Interaction, Interactivity, Computer-mediated, Distance education, Teacher competencies

Introduction

The distance education format challenges teachers to develop a learning environment that places more responsibility on the student to accomplish academic tasks with minimal teacher assistance. It is an open-ended learning model that will bring some anxious moments to the best on-line teachers. For instance, educators who are used to having a tightly controlled classroom might feel somewhat uncomfortable monitoring on-line discussion forums. The discussion format has an unpredictable dimension that makes student-centered learning dynamic but less easy to control. Teachers appreciate the lively debates that characterize most on-line classes. Students can offer thought-provoking dialogue because they have time to reflect on the posted comments before sharing their thoughts (Lewis, Treves, & Shaindlin, 1997).

The level of interactivity (communication, participation and feedback) or interaction between students and between students and their teachers has a major impact on the quality of computer-mediated education programs. Berge (1999) observes that "interaction does not simply occur but must be intentionally designed into the instructional program" (p. 5). Therefore, it is vital that distance educators have a clear understanding of how to promote interactivity in their online classrooms. The writer will highlight interaction research in distance education. The discussion will provide insights that should help online educators become more effective in developing strategies that promote academic dialog.

Importance of Interaction in Distance Education

As educators refine their philosophy of distance learning, they are concerned about sustaining interactivity in their educational process. Today's adult learning theories are built upon the premise that teachers will assist their students to become self-directed and independent (Moore, 1990). Learners must assume responsibility for their educational experiences, but independent study has natural limitations. If learners do not receive adequate teacher feedback and reinforcement, students will not always know whether they possess an accurate knowledge of their subject matter. A primary goal of adult education is to promote self-directed attitudes while discouraging excessive dependency upon the instructor (Milheim, 1993).

Computer-mediated education creates unique risks for both tutors and learners. Tutors can face heavy workloads from large online classes that require large amounts of personal e-mails, phone calls, and discussion forum comments. The quality of online interactivity with students can suffer, if teachers become overwhelmed by constantly having to deal with large classes. Yet, fellow classmates who appear to offer more intelligent discussion comments can discourage learners. It can have a negative impact on the quality and quantity of their discussion postings. As learners devalue their personal knowledge and life experiences, their online contributions can become more driven by an obligation to get through the experience (Rowntree 1995).

Research literature on teaching and learning in higher education does affirm the importance of interactivity within the educational process. Adult educators integrate academic communication into their learning theories as an essential feature of their educational models. Collis (1998) shared the following six vital instructional principles that should characterize adult education:

1. Both learner and educator play an active and unique role in the educational process.
2. The process of creatively acquiring knowledge involves human interaction and learner competence that are developed and evaluated within a communication-oriented educational model.
3. Contemporary models of learning support learned centered instruction that encourages self-assessment, personal reflection, and elicit learner articulation of their ideas.
4. The learning environment should maximize meaningful and reflective interactions while providing a variety of opportunities for feedback.

5. Creating instruction that promotes learner self-regulation and individual responsibility is the product of educators who are academically well prepared and monitor the quality of student work.
6. Adult educators recognize that students want to move efficiently through their studies, in both time and energy; students do not automatically have good study skills, discipline, or motivation." (p. 375)

The growth of distance education schools continues while today's educators and learners raise serious concerns about the reduced levels of human interaction during their on-line classes. Educators are fearful that computer-mediated education will reduce human interaction and writers stress the need to devise strategies that bridge the communication gap between physically isolated on-line learners (Jaffee, 1998; Tinker, 1997). Interactivity is an issue that concerns learners, teachers, administrators, and instructional designers who want to promote independent learning without losing social interaction. Saba (1998) stated that "the success of distance education, to a greater degree, will depend on the ability of educational institutions to personalize the teaching and learning process (p. 1)."

Distance education literature makes frequent references to learners being independent and self-directed. Yet, the goal of being self-directed is considered a life-long process that involves the element of social interaction. Knowles (1990) advocated fostering learner competencies by having a positive psychological climate built upon trusting human relationships. Academic collaboration should be pleasant and support authentic sharing between learners. Knowles stated that "learning is a very human activity. The more people feel they are being treated as human beings---that their human needs are being taken into account---the more they are likely to learn and learn to learn (p. 129).

Interactivity/Interaction Research Studies

Burge (1994) investigated two on-line graduate education classes using in-depth interviews with 21 master of education students and their two instructors. The interview results indicated that learners had specific expectations of their on-line peers in the following four areas:

Participation - share different perspectives, demonstrate application of knowledge, risk sharing tentative ideas, and show interest in the educational experiences of other learners.

Response - provide constructive feedback, respond to questions without being repetitive, be a dependable small group member, share positive remarks with others, and actively participate in relevant dialog.

Affective feedback - use learner's names during course work, provide a sense of community or belonging to others, show patience, offer compliments, and encourage a learning atmosphere that is affirming and supporting.

Focused messaging - use concise on-line statements and avoid excessive messages that do not contribute to learning within the group.

Burge's (1994) study did identify instructor behaviors that were considered vital to being effective distance educators. The first tutor competency involved being able to manage their class discussions. Instructors should develop a class structure and on-line teaching style that encourages creativity, reflective thinking, and self-directed learning. Teachers should operate as monitors who keep the class discussions focused (e.g. reduce idea fragments), moving at a good pace, and constructive. In fact, educators should reduce negative learning experiences by controlling (e.g. censuring their remarks) those who interfere with the class dialog. Additionally, study participants expected that instructors should play a vital role in assisting learners. Burge (1994) related that "instructors should support by giving fast and relevant technical help, sending timely and individualized content-related messages and feedback, with, if possible, summaries of discussion and guidance about resources, and offering affective support (welcome, encourage, show empathy, role model support-giving"(p. 30-31).

Burge's (1994) investigation did explore the strengths and weaknesses of computer-mediated education. Interviewees appreciated the flexibility in working in the discussion format that gave them the freedom to participate according to their schedules. Yet, the study participants expressed problems with their on-line educational experiences. For instance, several learners noted class discussions were only relevant if students responded within a narrow time frame. Students who fell behind in their discussion postings sensed that they were missing opportunities for interacting with others. When learners felt pressured to keep up with their classmates, that was complicated by information overload and fragmented discussions. Learners had major problems handling the quantity of data generated during their course work (Wegerif, 1998).

Burge's (1994) revealed the study participants positive and negative experiences with peer interaction. Students enjoyed having others help them, sharing critical feedback, and observing a diversity of perspectives during their on-line course. The study participants cited having problems with other learners during their group work and class discussions. The writer's research on interactivity (Muirhead 1999) did identify students who expressed concern that group work can place unfair demands upon a few individuals who do all the work for the entire group. Teachers can help prevent negative group experiences by closely monitoring their work and giving grades to students based on their actual contributions. Additionally, it is important to have assignments that can be completed in a reasonable amount of time. Distance educators must create an online presence through posted messages that offer guidance and being available for student questions. The instructional support helps groups to stay focused on their assignments while developing effective online dialog with their classmates (Palloff & Pratt 1999).

Research studies on interactivity reveal that students have a real need to make genuine connections with their peers and instructor (Muirhead 1999). The affective and psychological dimension of distance education is an important part of their overall learning process. Yet, online instructors face the dilemma of how to foster interaction with students who vary

in their need for academic guidance. Often, this problem is portrayed as teacher-directed versus student self-directed learning models. In reality, the online teacher will have to adapt his/her teaching style to meet the needs of their students. Berge (1999) relates that interaction in education "involves a continuum from teacher-centered to student-centered approaches" (p. 9).

As an online faculty member for the University of Phoenix, my teaching assignments have involved facilitating graduate research classes. Often, students are new to computer-mediated education and their first week of class is a critical time for helping students to adapt to working online. Students embark on their academic journey with excitement that they are pursuing a graduate degree. Yet, they are apprehensive about working in an unfamiliar environment. Therefore, my job involves helping students become more comfortable and confident learners who are willing to take some educational risks. It is important that the teacher creates a friendly class atmosphere that encourages people to share and ask questions. For instance, it is wise to personally greet each student to the class with an e-mail note and demonstrate interest in their academic goals. During the class, students will grow more independent and their questions will reflect a different set of learning needs. In fact, students will often help each other with learning problems (e.g. using Outlook Express). Online teachers learn to use a variety of instructional strategies that enhance student interaction while promoting both self-directed and community oriented learning objectives.

Distance Educator Competencies

Salmon (2000) offers superb insights into essential teacher competencies from her action research studies on Computer Mediated Conferencing (CMC). She has extensive online experience as a trainer of e-moderators for the Business School at the Open University (United Kingdom). Her findings were based on a combination of content analysis of online communication of students and teachers, focused group work and testing and evaluation of a new teaching and learning model. Salmon utilizes research studies to develop a comprehensive chart of five e-moderator competencies:

Understanding of online process-understand how to promote group work, pace online discussions, experiment with new ideas

Technical skills-use software to facilitate student interaction by monitoring student messages and create conferencing opportunities

Online communication skills- able to effectively interact with students by using concise and clear messages that encourage academic dialog and personalize the online experience

Content expertise- credible subject matter knowledge and experience to share comments/questions that stimulate lively debate

Personal characteristics-able to adapt to different teaching situations and demonstrates a genuine excitement about online learning

The list of five competencies can be used in a variety of ways: by online trainers for designing professional development plans for faculty members, help administrators recruiting online personnel and distance educators who are creating new curriculum materials for their classes. Additionally, software developers can assist online interaction by creating new products that improve the text-based environment. Salmon (2000) relates that software developers "can enhance the use of metaphors online and provide interesting and purposeful learning environments onscreeen through a wide range of icons and visual techniques" (p. 97).

Conclusion: Need for Professional Development Programs and Research

A major theme of interactivity literature involves the challenge of providing quality online instruction. Heath's (1998) experience with an undergraduate political and social philosophy class is a good example of the multidimensional nature of online interaction. The class began with good student involvement but their online participation declined as the semester progressed. Yet, Cronje (1999) and Reinhart (1998) reported have very positive online educational experiences.

Why is there such a discrepancy in reports about distance education classes?

Cornell (1999) relates that research at the University of Central Florida reveals a problem with teachers and students of not being properly prepared for their online class work. The research project identified a variety of student problems: feeling isolated due to inadequate teacher feedback, struggling with technical aspects of the Internet and computer technology, and time management problems that resulted in failing to complete assignments. Teachers reported that they appreciated the flexibility of online instruction but struggled with increased time demands, technical problems with the technology, reduced student contact and a diminished sense of control.

Researchers need to examine interaction differences between undergraduate and graduate students because they have different learning needs. Interaction research studies highlight the need for distance education schools to invest more of their resources into the professional training of their educators. Additionally, research studies are needed to investigate what are the best staff development programs for online teachers. Today, the quality of online interaction in computer-mediated classes varies greatly which indicates that changes are needed in the professional training of online teachers.

References

Berge, Z. L. (1999). Interaction in post-secondary web-based learning. *Educational Technology*, 39 (1), 5-11.

Burge, E. J. (1994). Learning in a computer conferenced contexts: The learner's perspective. *Journal of Distance Education*, 9 (1), 19-43.

Collis, B. (1998). New didactics for university instruction:Why and how? *Computers & Education*, 31 (4), 373-393.

Cornell, R. (1999). The onrush of technology in education: The professor's new dilemma. *Educational Technology*, 39 (3), 60-64.

Cronje, J. (1999). Using the Internet to facilitate co-operative distance learning, http://hagar.up.ac.za/catts/rbo96.html.

Heath, E. F. (1998). Two pints of cheer and a pint of worry: An on-line course in political and social philosophy. *Journal of Asynchronous Learning Networks*, 2 (1), http://www.aln.org/alnweb/journal/vol2_issue1/wegerif.htm.

Jaffee, D. (1999). *Asynchronous learning: Technology and pedagogical strategy in a computer-mediated distance learning course*, http://www.newplatz.edu/~jaffeed/esstsxx.htm.

Knowles, M. (1990). Fostering competence in self-directed learning. In R. M. Smith (Ed.) *Learning to learn across the life span*, San Francisco: Jossey-Bass, 123-136.

Lewis, D. C., Treves, J. A. & Shaindlin, A. B. (1997). Making sense of academic cyberspace: Case study of and electronic classroom. *College Teaching*, 45 (3), 96-100.

Palloff, R. & Pratt, K. (1999). *Learning communities in cyberspace*, San Francisco: Jossey-Bass.

Milheim, W. D. (1993). Using computer-based instruction with adult learners. *TheJournal of Continuing Higher Education*, 41 (3), 2-8.

Muirhead, B. (1999). Attitudes toward interactivity in a graduate distance education program: A qualitative analysis, Parkland, FL: Dissertation.com.

Reinhart, C. J. (1998). Reflections on learning and teaching at a course at a distance: The America in the Sixties course. *Journal of Asynchronous Learning Networks*, 2 (1), http://www.aln.org/alnweb/journal/vol2_issue1/wegerif.htm.

Rowntree, D. (1995). Teaching and learning online: A correspondence education for the 21st century? *British Journal of Educational Technology*, 26 (3), 205-215.

Saba, F. (1998). Enabling the distance learner: A strategy for success. *Distance Education Report*, http://distance-educator.com/Editorial_1.2.html.

Salmon, G. (2000). E-Moderating: The Key to Teaching and Learning Online, London: Kogan Page.

Tinker, R. (1997). Netcourses reform education using the power of the Internet. *The Concord Consortium*, http://www.concord.org/library/1997spring/toc.html.

Wegerif, R. (1998). The social dimension of asynchronous learning networks. *Journal of Asynchronous Learning Networks*, 2 (1), http://www.aln.org/alnweb/journal/ vol2_issue1/wegerif.htm.

Enhancing Social Interaction in Computer-Mediated Distance Education

Brent Muirhead

Muirhead, B. (2000). "Enhancing Social Interaction in Computer-Mediated Distance Education." *Educational Technology & Society*, 3(4). Available: http://ifets.ieee.org/periodical/vol_4_2000/v_4_2000.html

Pre-discussion paper

Introduction

Contemporary distance education schools are striving to have the most effective educational programs that encourage a dynamic combination of being flexible, individualized, personally and professionally challenging. As distance education schools grow in popularity, distance educators and their learners are raising important instructional questions about the quality of these computer mediated educational programs. A vital academic question involves the social interaction that occurs during online class work. Educators are wondering whether the online format will provide adequate opportunities for genuine dialogue and social interaction that are vital elements in the learning process (Hobaugh, 1997).

The researcher offers a practical definition of interactivity that affirms the human dimension of this term. Interactivity involves participation by the learner in on-line communication between learners and with their class tutors. Additionally, interactivity among learners can be immediate (e.g. phone call/chat session) or a delayed personal encounter (e.g. discussion forum). The definition highlights the personal nature of sharing information during distance education classes (Wagner, 1994). Naturally, learners interact with their course materials through reading their textbooks, journal and discussion forum comments from other learners and their tutors. The subject content provides an academic foundation for meaningful dialog within a distance education class.

Research Studies on Interactivity

Distance education literature frequently mentions the need for research into interactivity (McNabb, 1994). The subject of interactivity has generated controversy among distance learning professionals who raise questions about the quality of on-line courses. The computer-mediated debate has occurred because many educators believe that interactivity is a vital element in the educational process. Wagner (1997) stated that "distance learning practitioners --- particularly instructors and program administrators --- seem to view interactivity as the defining attribute of contemporary distance learning experience" (p. 19). Critics usually stress that interactivity is the missing element or ingredient in distance education because classes lack the traditional face-to-face interactions. However, distance education supporters claim that contemporary on-line classes contain effective interactivity learning experiences. Simonson (1995) argued that educators must strive "…to make the experience of the distance learner as complete, satisfying, and acceptable as that of the local learner" (p. 12). In fact, proponents state that interactivity in distance education is just as good or even better than the traditional classroom (Wagner, 1997).

Harasim's (1987) study on computer-mediated instruction examined two graduate education courses taught through the University of Toronto. The majority of students felt quite comfortable using computers prior to their distance education courses. Instructors provided two face-to-face training sessions and resource learning kits (e.g. course guides) to help the students prepare for the course. The students' responses to open-ended questions and casual remarks about the courses were very positive. Harasim (1987) found that students cited the following seven distinct advantages to on-line education:

1. increased interaction: quantity and intensity;
2. access to group knowledge and support;
3. democratic environment;
4. convenience of access: the `24 hour' class;
5. user control over the learning interaction;
6. motivational aspect; and
7. text-based communication" (p. 124).

Davie (1988) investigated two graduate on-line education courses at the University of Toronto. The students worked on writing projects with partners and analyzed case studies in small groups. At the end of courses, students met with Davie and described their learning experiences. The 26 students expressed a high level of satisfaction with interaction with their teacher and course structure. Students commented favorably on their collaboration with other students. The students successfully completed their writing assignments by having effective strategies for doing group work. Students learned to plan cooperative writing activities and establish clear expectations for each student.

Mason (1991) studied interactivity in a distance education class at the Open University in Great Britain. The investigation found that tutors played a major role in directing the on-line discussions. Instructors influenced the discussion process by encouraging new topics, sharing new material, and redirecting the conversation patterns. The project did find that student interactions were fostering learning by integrating personal experience into their class discussions and gaining insights (e.g. how others think) from other students. Yet, only one third of the students were

actively engaged in providing and receiving on-line feedback. The study raised concerns that student interactions did not promote critical thinking opportunities to seriously examine course themes. Student discussion contributions were examined and organized into the following six categories of interactions:

1. Use of personal experience related to course themes
2. Reference to appropriate material outside the course package
3. Comments on others' opinions, both students and tutors
4. Introduction of new issues for discussion
5. Students posing questions for the group
6. Tutors acting as facilitators. (Mason, 1991, p. 168)

Horn (1994) and McNabb (1994) discussed research studies on interactivity and raised questions about the quality and quantity of dialogue in computer-mediated courses. Genuine interactivity between tutor and student can be hindered by an assortment of educational problems. Students can be confused about the quality of their work when they have trouble contacting their teachers about their assignments, and their classes lack specific academic standards. The writers stressed the need for more research on the human dimension of distance education and argued that feedback is a vital element in the teaching and learning process.

Burge (1994) investigated two on-line graduate education classes using in-depth interviews with 21 master of education students and their two instructors. The interview results indicated that students had specific expectations of their on-line peers in the following four areas:

1. **Participation** - share different perspectives, demonstrate application of knowledge, risk sharing tentative ideas, and show interest in the educational experiences of other students.
2. **Response** - provide constructive feedback, respond to questions without being repetitive, be a dependable small group member, share positive remarks with others, and actively participate in relevant dialog.
3. **Affective feedback** - use students' names during course work, provide a sense of community or belonging to others, show patience, offer compliments, and encourage a learning atmosphere that is affirming and supporting.
4. **Focused messaging** - use concise on-line statements and avoid excessive messages that do not contribute to learning within the group.

Burge's (1994) study did identify instructor behaviors that were considered vital to being effective distance educators. The first tutor competency involved being able to manage their class discussions. Instructors should develop a class structure and on-line teaching style that encourages creativity, reflective thinking, and self-directed learning. Teachers should operate as monitors who keep the class discussions focused (e.g. reduce idea fragments), moving at a good pace, and constructive. In fact, educators should reduce negative learning experiences by controlling (e.g. censuring their remarks) those who interfere with the class dialog. Additionally, study participants expected that instructors should play a vital role in assisting students. Burge (1994) related that instructors should support by "giving fast and relevant technical help, sending timely and individualized content-related messages and feedback, with, if possible, summaries of discussion and guidance about resources, and offering affective support (welcome, encourage, show empathy, role model support-giving)" (p. 30-31).

Burge's (1994) investigation did explore the strengths and weaknesses of computer-mediated education. Interviewees appreciated the flexibility in working in the discussion format that gave them the freedom to participate according to their schedule. Also, the interviewees enjoyed having the freedom to reflect on a topic before sharing with their classmates and instructor. Yet, the study participants expressed problems with their on-line educational experiences. For instance, several students noted class discussions were only relevant if students responded within a narrow time frame. Students who fell behind in their discussion postings sensed that they were missing opportunities for interacting with others. When students felt pressured to keep up with their classmates, that was complicated by information overload and fragmented discussions. Students had major problems handling the quantity of data generated during their course work (Wegerif, 1998). Students acquired coping strategies, such as filtering useful messages (e.g. using key words to identify ideas) and creating paper transcripts.

Burge's (1994) research highlighted the interviewees' positive and negative experiences with peer interaction. Students enjoyed having others help them, sharing critical feedback, and observing a diversity of perspectives during their on-line course. The study participants cited having problems with other students during their group work and class discussions. Students expressed disappointment with fellow students who were not timely and relevant in their message postings. The affective and psychological dimension of distance education was an important part of their overall learning process. Students demonstrated a real need to make genuine connections with their peers and instructor.

Hallett and Cummings (1997) studied a small computer-mediated undergraduate course in educational psychology. The class utilized a Web-based environment that was created to promote authentic and interactive learning experiences. The instructor found that interactivity among students was a very illusive goal. Students did not post additional on-line comments beyond the required assignments because the work was not graded. Students had a negative view toward posting messages because they felt lost in cyberspace. The absence of visual cues and immediate instructor responses to their comments played a role in their negative perspectives. The experimental study revealed how achieving interactivity was a complex educational process influenced by a variety of learning factors.

Heath (1998) shared teaching experiences from an on-line undergraduate political and social philosophy course taught through the State University of New York. Students were

expected to participate in on-line discussions and 15% of their course grade involved sharing meaningful and consistent comments. Students appreciated the teacher's on-line interventions by offering prepared commentary and participating in the class dialog. Yet, students displayed a variety of participation levels and comments varied in quality.

The irregular posting of comments by students had a negative impact on the class. As the semester progressed, student on-line participation declined and fewer comments were posted. Heath (1998) acknowledged that "even if the students in an on-line course possess strong motivation and good writing skills, there is still the matter of insuring that enough students are participating, thoughtfully, in the on-line discussions" (p. 13).

Cronje (1999) taught a graduate distance education class at the University of Pretoria. Study participants were working toward a master's degree in computer-assisted education. Students created their own support system by e-mailing classmates for help, however, two of the cooperative learning groups joined other groups because four of the students dropped out of the class. Cooperative work projects did provide a framework for students to develop deeper relationships with others, the on-line discussion groups operated successfully during the course, and students reported positive benefits (e.g. new network relationships).

Research studies on interactivity reveal that interactivity is a multidimensional entity that is dependent upon a variety of factors. For instance, students considered Reinhart's (1998) contemporary on-line American history course a positive educational experience. Yet, the instructor felt that creating an interactive course environment was a very labor-intensive venture. Educators need significant amounts of time to develop on-line courses that provide real opportunities for good student-teacher dialog. Additionally, students must become more active and self-directed learners, which can be a major change for those who tend to be passive about their education (Kearney, 1997). Students can procrastinate on their assignments because they have fewer teacher prompts and greater control over their learning. Distance education courses create a false sense of security for some students who neglect studying because it is "out of sight, out of mind" (Bourne, McMaster, Rieger, & Campbell, 1999).

Muirhead's (1999) interactivity study at Capella University involved 93 graduate students (master's and doctoral). The research project focused on three aspects of interactivity: communication, participation and feedback. The study identified 44 students (47.3%) who felt that classmates who were late posting their weekly on-line comments had a negative impact on dialog because a reduction in student contributions weakened the quality of discussion. The investigation found that 66 students (70.9%) had been offered or had received tutor assistance with their class work. A major overall conclusion of the study involved 84 students (90.3%) who related the importance of maintaining on-line communication throughout the course to enhance interactivity.

The late on-line posting issue highlighted a larger issue that, to enhance interactivity, both tutors and students must be active participants who are consistently involved in a relevant academic dialog. In the study, students clearly indicated that consistent on-line communication was the key to improving interactivity. Students wanted tutors who provide timely and relevant feedback on their discussion comments and term papers. The study did affirm that tutors were offering academic feedback to many students (66 = 70.9%) but there was a problem with tutors giving consistent feedback. Therefore, both tutors and students are experiencing some problems in computer-mediated education (Heath, 1998).

Importance of Interactivity Study

A significant factor involved the important role interactivity plays in today's computer-mediated educational programs. Also, on-line interactivity has the potential of enhancing the quality of distance education, while improving student interactivity to create a climate that supports cooperative learning, critical thinking activities, and meaningful tutor/student academic collaboration (Milheim, 1995).

Administrators and educators are not always sure how to devise relevant programs without having a more accurate profile of their adult students. Currently, there is only a limited amount of research on topics like interactivity among students and their tutors (Bullen, 1997). The absence of face-to-face, peer, or teacher interaction possibly leads to negative educational experiences because of social isolation and working in an apparently impersonal environment (Hughes & Hewson, 1998). Ultimately, a failure to address social interaction issues could lead to an increase in the dropout rate among students.

Student Ideas

Muirhead's (1999) research did generate a number of student ideas on how to improve interactivity. Here are some of their suggestions.

- Student accountability for keeping up with weekly discussions.
- Tutors should create more intellectually challenging discussion questions.
- Instructors being more active in their classes.
- Integrating more group projects and chat sessions into online classes.
- Tutors should promote more learner centered activities and have a greater influence on course direction.
- Students wanted more personalized contact with their tutors to humanize their classes (ex. e-mail comments that reveal the tutors personality).

Potential Interactivity Research Studies

Future interactivity investigations could explore the following four areas: (a) conduct case studies on what factors promote interaction within group activities; (b) explore alternative teacher evaluation systems for professional development for distance educators (Simonson, 1997), (c) perform a content analysis of

textual material produced during on-line discussions to investigate critical thinking and interactivity; and (d) compare and contrast interactivity attitudes between undergraduate and graduate on-line students. Today's distance education doctoral students have a variety of interactivity research projects to choose from. Hopefully, new studies will offer new and relevant insights that should assist students, administrators and distance educators.

Conclusion

Distance education leaders must develop an instructional support system that provides effective assistance to adults who flounder without it. Administrators and teachers realize that their student population has a diversity of educational needs, and that today's students vary greatly in their ability to perform as self-directed students. For instance, some students lack confidence in their academic abilities and need more individual attention, while other adult students are highly autonomous and have different kinds of academic needs. Yet, effective instructional planning requires an accurate profile of adult learning needs. Often, the student's perspective on interactivity has not been adequately addressed by contemporary research studies (Burge, 1994).

The review of interactivity studies highlighted the fact that on-line higher education is an evolving entity that challenges both students and tutors to reflect on their respective roles and responsibilities. Students must develop their self-directed learning skills and adapt their communication habits to be effective in the on-line environment. Yet, educators play a vital instructional role in promoting consistent and relevant interaction between students and with their tutors.

References

Bourne, J. R., McMaster, E., Rieger, J. & Campbell, J. O. (1999). Paradigms for on-line learning: A case study in the design and implementation of an asynchronous learning networks (ALN) course. Journal of Asychronous Learning Networks, 1 (2), http://www.aln.org/alnweb/journal/issue2/assee.htm.

Bullen, M. (1997). A case study of participation and critical thinking in a university-level course delivered by computer conferencing, Unpublished doctoral dissertation, University of British Columbia.

Burge, E. J. (1994). Learning in a computer conferenced contexts: The learners' perspective. Journal of Distance Education, 9 (1), 19-43.

Coldeway, D. O. (1989). Methodological issues in distance educational research. In M. G. Moore & G. C. Clark (Eds.) Readings in principles in distance education, University Park, PA: The Pennsylvania State University, 90-99.

Cronje, J. (1999). Using the Internet to facilitate co-operative distance learning, http://hagar.up.ac.za/catts/rbo96.html.

Davie, L. E. (1988). Facilitating adult learning through computer-mediated distance education. *Journal of Distance Education*, 3 (2), 55-69.

Hallet, K. & Cummings, J. (1997). The virtual classroom as authentic experience: Collaborative, problem-based learning in a WWW environment. *Competition-Connection-Collaboration: Proceedings of the Annual Conference on Distance Teachingand Learning*, Madison, WI: University of Wisconsin-Madison, 103-107.

Harasim, L. (1987). Teaching and learning on-line: Issues in computer-mediated graduate courses. *Canadian Journal of Educational Communication*, 16 (2), 117-135.

Heath, E. F. (1998). Two pints of cheer and a pint of worry: An on-line course in political and social philosophy. *Journal of Asynchronous Learning Networks*, 2 (1), http://www.aln.org/alnweb/journal/vol2_issue1/wegerif.htm.

Hobaugh, C. F. (1997). Interactive strategies for collaborative learning. *Competition-Connection-Collaboration: Proceedings of the Annual Conference on Distance Teaching and Learning*, Madison, WI: University of Wisconsin-Madison, 121-125.

Horn, D. (1994). Distance education: Is interactivity compromised? *Performance and Instruction*, 33 (9), 12-15.

Hughes, C. & Hewson, L. 1998). Online interactions: Developing a neglected aspect of the virtual classroom. *Educational Technology*, 38 (4), 48-55.

Kearney, T. (1997). Self-directed learning at Algonguin College, http://node.on.ca/tfl/integrated/fieldnotes/nuun2.html.

Kearsely, G. (1995). The nature and value of interaction in distance learning, http://www.gwu.edu/-etl/interact.html.

Mason, R. (1991). Analyzing computer conferencing interactions. *International Journal of computers in Adult Education and Training*, 2 (3), 161-173.

Milheim, W. D. (1995). Interactivity and computer-based instruction. *Journal of Educational Technology Systems*, 24 (3), 225-233.

McNabb, J. (1994). Telecourse effectiveness: Findings in the current literature. *TechTrends*, 39 (4), 39-40.

Muirhead, B. (1999). Attitudes toward interactivity in a graduate distance education program: A qualitative analysis, Parkland, FL: Dissertation.com.

Reinhart, C. J. (1998). Reflections on learning and teaching at a course at a distance: The America in the Sixties course. *Journal of Asynchronous Learning Networks*, 2 (1), http://www.aln.org/alnweb/journal/vol2_issue1/wegerif.htm.

Simonson, M. (1995). Does anyone really want to learn … at a distance? *TechTrends*, 40 (5), 12.

Simonson, M. R. (1997). Evaluating teaching and learning at a distance. In T. E. Cyrs (Ed.) *Teaching and learning at a distance: What it takes to effectively design, deliver, and evaluate programs*, San Francisco, CA: Jossey-Bass, 87-94.

Wagner, E. D. (1997). Interactivity: From agents to outcomes. *New Directions for Teaching and Learning*, 71, 19-26.

Wagner, E. D. (1994). In support of a functional definition of interaction. *The American Journal of Distance Education*, 8 (2), 6-29.

Wegerif, R. (1998). The social dimension of asynchronous learning networks. *Journal of Asynchronous Learning Networks*, 2 (1), http://www.aln.org/alnweb/journal/vol2_issue1/wegerif.htm.

Post-Discussion Summary

The discussion of the preceding paper occurred on the IFETS discussion list from August 25, 2000, to September 8, 2000.

Brent Muirhead. The discussion on interactivity should address the following issues:

- Explore learning theories that encourage online interaction.
- Investigate the role of instructional delivery systems in fostering critical thinking skills and cultivate interaction within online classes.
- Outline vital teacher competencies that promote online interactivity, self-directed learning and collaboration with other students.
- Discuss possible research topics for future interactivity projects.

Specific questions to start on our discussion on Monday, August 28th:

- What is a good operational definition of the term "interactivity"?
- What are the essential teacher competencies that are necessary for promoting genuine interaction?
- What type of teacher education classes or workshops would be the most relevant in helping equip teachers to be effective online instructors?"

Bob Leamnson. Bob raises questions about today's college students interacting online. "The fact that so many of us appreciate, and learn from, a variety of listservs demonstrates that electronic communication is the answer to one particular and very real need. That undergraduates can be satisfactorily educated by this means remains to be demonstrated. Where it has been tried on this campus there is always a *demand* by students that they get together in the same room and talk to one another and their teacher--and listen. James Garfield's version of an ideal learning environment (1871) was '...a log hut, with only a simple bench, Mark Hopkins on one end and I on the other.' Whatever difficulties can be solved by distance learning, I doubt it will ever take the place of teacher and students having 'A Room of Our Own.'"

Muhammad Betz. Muhammad asks whether behaviorism principles are operating during online interaction. "Another angle related to learning and interaction is the principle of the immediacy of reinforcement or feedback, which is a behaviorist tenet. In Brent's introductory paper, he explains of the frustration of on-line learners when they do not receive timely feedback and are left waiting for responses from either instructors or other students. Is "interaction" or the perception of interaction related to this principle i.e., the presence or absence of feedback to questions or responses?"

Clark Quinn. Clark related how asynchronous discussion (delayed time) was successful because individuals had time to reflect and compose their responses. "We made some concrete suggestions about how to improve the likelihood of quality discussion outcomes that I think have not lost their validity nor value. For example, learners can handle what we termed "multiple threads of discourse", but managing those requires some support in communication (e.g. meaningful subject headers) and in moderation (instructor guiding and closing lines of discussion), as well as planning (starting parallel topics earlier to get them all covered by the end of class)."

Bob Leamnson. Bob seeks to clarify the term "interaction" to help avoid confusion. "While 'interacting' with a book might be an expression to suggest a strong 'reaction' to the author's thoughts, it is in fact a misuse of the word since the reader's thoughts and ideas do not in any way have an effect on the book. So it is that a student can 'react' to a website but can 'interact' only with another living person."

Sanjaya Mishra. Sanjaya shares her insights on interaction from a workshop on Interactive Learning Technologies. "Interaction: It is the element of human dimension that makes learning complete by providing either one-to-one or one-to-many or many-to-many sharing of experience and knowledge. So interaction can be of three types: teacher-learner, learner-learner, and learner-content. There is also another type of interaction, (as propounded by many) called learner-interface interaction. However, we try to put it as interactivity function of the system." Sanjaya wonders where there are several levels of interaction involving the social and academic dimensions of learning.

David Mallows. David observes the need to study ways to maximize student interaction "If we examine the use of asynchronous text-based messaging in educational contexts there is the possibility of interaction with our own emerging ideas and tentative understandings. With CMC these are publicly posted enabling us to a certain extent to objectively reflect on them. Others also comment, develop and reformulate the ideas according to their own perspective and we then have the opportunity to repost them or formalize them in academic papers or professional projects. The forum created by CMC enables us to interact with our own thoughts, in effect to interact with ourselves and to reflect on our own thinking. This seems to be a truly different aspect of the learning community created through the use of CMC...Brent mentions class 'covenants' that are created by the students and pledge their dedication to be active participants in group assignments. If students could be made aware of the positive effect of posting ideas to an electronic forum, such covenants may be more enthusiastically embraced."

Stephen Downes. Stephen notes that discussion forum has stressed human interaction and relates that the delivery of information is not important. "But because interaction is constituted of the exchange of information, I would think that the modality of interaction (specifically, human vs. non-human) is not a factor inherent in the quality of the interaction."

Deirdre Bonnycastle. Deirdre highlights the fact that interactivity research must go beyond just studying education students. "I'm an instructional designer at a technical school and I find that there are different needs for interaction within different learning environments. For example a nursing student would desire interactions that were affectively and reflectively intense, while an accounting student might be interested in problem based interaction and a carpenter might be interested in seeing and critiquing other students' projects. Each environment requires a different set of skills in instructor and student and I would like to see more research in non-university settings."

Dario Anthony Nardi.Dario notes that online students have a variety of needs and expectations. "Some students I've found want immediate feedback, not a lot of elaboration is needed but it should be honest and useful." "Some students want highly personalized feedback; the "do it with me" preference. They want a real person and some depth. The second student above, she was a good example." "Some people often think of learning something as learning a concept or technique. (I find I must remind these students that affect, motivation, flow, and non-verbals are critical in making effective web sites.) If they want feedback, it should be coming from someone who's the expert (like the professor, me) and not a random student." "Some people don't really care about the learning as much as what it will do for them, such as the grade they will get on it a means to something else."

Kathleen Warren. Kathleen shares that educators must define quality online learning. "In a prototype study of students' interactivity in several on-line courses, I found that the structure provided by the computer-mediated communication system, coupled with guidelines for use, provided by the instructor, made a significant difference in the volume of messages exchanged. The more well defined the structure and guidelines, the higher the volume of communication among students. However, higher volume, generated in response to a requirement that students interact with each other using a structured, monitored system did not necessarily equate to quality learning. As educators, we need to define what the 'quality learning' is that we are aiming for and teach students how to judge both the communication of their peers and their own communication for level of quality."

Susan Cornish. Susan defines interactivity: "I am a long time lurker … my view is that interactivity is an aspect, potential or description of a thing or system, while interaction is an actual exchange involving people. So we talk about interactivity when we are designing websites but we describe the interaction that takes place when a user tests it."

Nancy Fire. Nancy relates experiences talking with individuals who have dropped out of online courses. "I have found in my very informal interviews that most people who never want to take an online course again have complaints like: It was boring The professor never got back to me. I think it's very hard to determine whether in these cases it was characteristics of the learner or the quality of the online learning itself. I think both are relevant factors."

Yannis Karaliotas. Yannis discusses various perceptions of interaction in online learning. "If, on the other hand, the distance which separates the learner from the knowing is the one that matters and its presence is recognised in both f2f and DL environments, dialectic interaction, as an element capable of reducing the distance between learners beliefs and the contexts of relevance in relation to which educational goals and methods are formulated and put into practice, should be seen as an inseparable part of the teaching/learning process (pedagogical dynamic function naturally combining with existing technological function, giving choice to learners -i.e. ignore, lurk or contribute at any given point in time)."

Norma Benesdra. Norma related a personal story about the importance of allowing students to interact with teachers in making decisions about their learning. "…I was delighted to look back on the process and realise that we had made an 'interactive decision' which succeeded in both relieving me of my anxiety and allowing the student to have an active status in her own learning process."

Chris O'Hagan. Chris describes how students learn online by participating in an external dialogue that promotes cognitive knowledge. “In this sense, real interaction with so called 'passive' or 'linear' material is possible because the 'reading' changes subtly (or not so subtly sometimes). This is often very much a sought-for phenomenon by creative artists (for that feeling one has with good art, that one never tires of it). Indeed, perhaps some of the best resources for learning have a certain 'openness' to this kind of internal/external dialogue, which enables the assimilation of the 'new' into the 'old' - it might partly explain that feeling one has with some texts that the words make sense but are simply 'flat' in terms of meaning.”

Nancy Fire. Nancy observes, “quality interaction is when the designer of the interaction perceives that the response from the participants matches the objectives of the interaction. In other words, if the objectives of the interaction were to achieve higher order thinking about a topic then, then quality interaction would achieve this outcome.”

John Laurie. John stresses the importance of establishing a democratic online climate. “Each learner as an equal collaborator in the construction of knowledge. Many people can find this difficult. But the most difficult, and most necessary, of all tasks in preparing for OLL, is I believe the construction of a virtual space where collaborators perceive and own the space, equally and confidently. Only when that's occurred can interaction of any description take place effectively. Maybe too much thought goes into the end points of OLL transactions and not enough into the virtual space where these transactions take place."

Bob Leamnson. Bob observes that online learning does not always require human interaction. "Which brings me to Brent's point, that interaction is not in all cases a necessary condition of learning. Intelligent and highly motivated students might learn quite adequately through reflective reading and listening. For them interaction would be supererogatory. For others, the need to verify consonance between their understanding and that of the rest of the world might be palpable. They do indeed need interaction with another mind." Bob relates that “these variations in learners' needs might explain why it is rare to get a real consensus when asking students to evaluate distance learning courses."

Deirdre Bonnycastle. Deirdre relates that teachers determine what is a quality outcome. “In some cases it is demonstrating a higher order thinking skill; in some cases it is development of emotional support/conflict resolution skills; in other cases it might be illustrating practical knowledge or combinations thereof. The instructor needs to be clear about the desired outcome and then create an on-line environment that supports the development of that outcome. Clear, written criteria based on the learning outcome is essential." Deirdre argues that teachers help students acquire new online learning skills. “Information transmission tends to see the conversation ending once the "right" answer has been given. I think students tend to give a lot of "good answer" messages because they want to offer support and agreement but are unclear about what other roles are available. Most of them grew up in a school system that supported memorized answers and discouraged co-operation, so they need to learn new skills outside of the information transmission model."

Martin Owen. Martin argues for a change in terms for online interaction. “Perhaps one of the most useful insights it has allowed me is to replace notions of ‘interactivity’ and ‘interaction’ with ‘engagement’ and ‘participation.’ It would seem appropriate to concentrate on developing tools that allow for customization rather than tools or rules that provide ‘the answer.’”

Marshal Anderson. Marshal shares the importance of distance educators providing adequate feedback on assignments. “There seems to be a need to set up an on-line dialogue between teacher and student in which the needs and concerns of the student come across and I feel that on-line teachers need to take account of the fact that the comments provided in marking often form the only feedback a student gets.”

Sally Mavor. Sally strives to help the discussion group reach a consensus on the term interaction. She relates that distance educators (e.g. Moore) assign interaction a variety of meanings. Sally encourages the group to look at defining specific submeanings to help clarify the issue. "In which case, could we (as a group) discuss the idea that social interaction could serve as an umbrella term for a range of different interaction types which require a collocation for their clearer definition and understanding? For example, could social interaction not usefully include: informational interaction, reflective interaction and critical interaction.”

Sally adapts and draws upon Feenberg's (1989) work by observing that moderators operate as facilitators for three major kinds of interactions: contextualizing, monitoring and meta (organize or summarize). Feenberg, A. (1989) The Written World: On the Theory and Practice of Computer Conferencing in *Mindweave: Communication, Computers and Distance Education* (eds.) Mason, R: Kaye, A:, Oxford, Pergamon Press.

William Klemm. William responds to Bob Leamnson’s remark that “whatever difficulties can be solved by distance learning, I doubt it will ever take the place of teacher and students having ‘A Room of Our Own.’ William offers a different perspective by noting, “… that a well-run on-line conferencing system does give teacher and students a ‘Room of Our Own’ and the virtual room does some things much better.”

Noel Eyre. Noel briefly discusses web methodologies that enable users to develop systems that help them monitor, monitor and change their learning environment. “Yes, there are such methodologies being developed that enable ‘readers, viewers' (don't you just hate the term 'users') to access and organize a sub set of a stored corpus of 'knowledge' according to their own set of criteria. These methodologies are based on XML (Extended Markup Language which is similar to HTML the scripting language of the web - but more flexible).”

John Laurie. John responds to Sally Mavor's comments about interaction difficulties arising from creating threads for one-to-one communication but restricts group discussion in the IFETS online discussions. John states that "… I find the current system excellent because a), everyone is equal, and b), the widest range of views is canvassed. Threads formalize, standardize and empower sub-groups; fine in some situations, but it's inspirational to read the scope of interpretation and it provides a great dynamic for the discussion – who knows where it will lead, or what ideas will spring up. I've found this current discussion on interactivity fascinating, where contributors jump in without constraint, creating just the sort of serendipitous conjunctions which interactivity really needs."

KC Starguy. KC argues that the term "engaged" is not a good term to substitute for interactivity. KC prefers using the term experiential an relates that "being engaged has very little to do with learning as my research shows with simulation and software use. At the most engaged is a tiny part, in the beginning. But overall the word 'engage' is what Jean Luc Picard says for the Enterprise to go somewhere- it should not be used to indicate what students are learning with computers and technology."

Muhammad Betz. Muhammad observes that "… the growing diversity of students and the concomitant growing diversity of preferred learning styles, which in turn should affect the teacher's (on-line or not) methods of interacting with learners. To this end, I point readers to the September 2000 edition of Educational Leadership, with the theme: 'How to Differentiate Instruction.' Personally, I relate better to the concept of instruction and its differentiation better than the concept of interaction, which even when defined by a dictionary, remains enigmatic and/or spurious."

Martin Owen. Martin supports the use of the term engagement because it is a critical educational issue. He observes, "Eric may associate 'engage' with Luc- Picard's faux militarism (which relates to the engagement of gear wheels... when they start working together)."

Chris O'Hagan. Chris emphasized the importance of experienced teachers promoting critical thinking in their students. "Thus we need to focus on external 'interactions' with people, computers or books etc which generate engagement for as many students as possible. This is where teacher experience counts, whatever the intended learning mode. This is what I miss so often in debates about interaction and interactivity - this sense of or recognition of the need for it to stimulate an internal process. And then of course, a discussion of the ways we can use to identify that this invisible, internal process has taken place in some way. For me, this is the real reason why experienced teachers are important, rather than the fact that they can sometimes discuss things with students, which may be useful, even desirable (for social or motivational benefits), but is neither necessary, nor sufficient for effective learning."

Christopher Eliot. Chris briefly mentions that a sociological study of Internet newsgroups would be informative. Also, that today's newsgroups have a variety of characteristics and have a history of providing individuals with educational opportunities and places to cultivate online communities.

Norma Benesdra. Norma responds to Martin Owen's questions by relying mainly on her experience in traditional education.

How much time delay is permissible/ effective?

"As usual, if you can explain why you took long to answer emails that should reassure students that your intentions were good and they should not feel ignored."

How long should my postings be?

"I'm afraid as long as necessary."

Is it permissible to address all my students simultaneously drawing on work sent in by a student (for instance should my marking of a students work be "in public" for all the other students to see?).

"I've always thought and done this: a general correction containing common errors and guidelines and a personal correction with very specific issues of each student."

School teachers criticize and praise students openly in class... not so common in higher education.... what about on line?

'I think if the praise and criticism could be done individually it would be better.'

If a student has paid for their education, what obligation is there on me to ensure their participation or is it their right to not participate?

"I think you should force them to participate, or encourage them to." If the state is paying does this obligation change (my current students have quite a generous stipend)?

"No, it doesn't as funds are spent to carry out a duty and not to occupy a seat uselessly."

From personal experience, I turn off in boring classes. Should I expect the same on-line?

"I don't think so, unless they turn off for a short break and then come back"

Peter Price. Peter relates that he is strongly opposed to what he calls "page-turning" software that offers very little mental interaction. He does support more interactive software … "such as 'The Incredible Machine' which invites the user to place devices on screen to "interact" with each other to solve a problem, or mathematics titles that present various representations of numbers that "respond" to input from the user. This really seems to me to be more interactive than many F2F learning contexts."

Muhammad Betz. Muhammad relates that usually tries to respond to every e-mail or telephone call. “Nothing is more frustrating to me than to have my emails or telephone calls ignored, but ... I know not everyone looks at this issue in the same way. Some teachers and people in general do not consider answering every email, question, or telephone call as a paramount virtue, implying a tacit understanding of participants. These nuances in teaching style are certainly apropos to a discussion about interaction between teachers and students in both the on-line and classroom contexts, but the question remains, is there one right way or correct way or exclusively successful way of interacting to ensure learning?” Muhammad concludes by noting that it is challenging to talk about educational issues because “there are so many variables involved in the educative process.”

David Kennedy. David uses five quotes to discuss online teacher competencies. “Chris O'Hagan mentioned (1 Sep) that 'It is the experience and design that lies behind it [online learning] that counts'. He is not the only one who has mentioned teacher experience in posing questions, handling discussion and small group interaction, in both face-to-face and distance contexts, as essential competencies.”

“Deirdre Bonnycastle stated that the instructor needs to be clear about the desired outcome and then create an on-line environment that supports the development of that outcome. This counsel applies equally to face-to-face education and online education.” “Marshal Anderson mentioned the need for good feedback from the teacher to the student. That is fundamental in any educational enterprise, whatever the environment.” “Brent has cited Gilly Salmon's five-step description of the development of the on-line participant as a 'model' to follow. These five steps (basically: joining, getting to know each other, exchanging information, knowledge construction and further development) are by no means exclusive to the online domain.”

“Most tellingly, I think, has been Norma Benesdra's clear responses to the questions about on-line learning, given from the perspective of an experienced traditional teacher. The skills she applies are the skills that any competent teacher possesses. They are not unique to the online environment.” David uses the quotes as evidence to support his argument that none of the teacher competencies are exclusive to the online environment.

Chris O'Hagan. Chris believes that technology can have a positive impact on online teaching and learning. “However, I actually think technology can increase efficiency and quality at the same time, and enable extra student-friendly study options - we have to work towards this and endure all the 'face-to-face is best' lobbiers (whom I often suspect have a hidden, even sometimes an overt, elitist agenda). I see it as a liberating force for many people all over the globe who are currently denied educational opportunities.”

Bob Leamnson. Bob stresses that our discussion has a consensus on two areas: interaction involves communication between two people and this interaction is not an essential condition for all learners. He states that “the nodal problem then, would seem to be providing effective personal interactivity in distance learning for those students who happen to need or depend on it.” Then, Bob closes by stating, “Distance Learning is going to be the answer to a limited set of problems for a limited set of people. I believe the present discussion provides evidence that Barzun was right; education is not a problem waiting for a solution, but something that is intrinsically difficult to do--but not impossible.”

Interactivity in a Graduate Distance Education School

Brent Muirhead

Muirhead, B. (2000). "Interactivity in a graduate distance education school." *Educational Technology & Society*, 3(1). Available: http://ifets.ieee.org/periodical/vol_1_2000/v_1_2000.html

Abstract

As distance education schools grow in popularity, contemporary educators are raising important instructional questions about the quality of these programs. A vital question involves concerns about the level of interactivity (communication, participation, and feedback) between students and between teachers and their students. Interactivity is a challenging subject because there are few research studies that address the issue. The author has investigated interactivity and completed a doctoral degree from a distance education school. The discussion highlights the unique challenges and benefits of computer-mediated education for adult learners. The closing section of the paper is devoted to outlining the skills that are essential for student success. The paper offers relevant insights into social interaction that should assist students, administrators and distance educators.

Keywords: Interactivity, Computer-mediated communication, Distance education

Introduction

The social dimension of learning by computer-mediated education has received little attention in literature. Sherry (1996) raised real concerns that students appreciated the accessibility of their distance education courses even though their on-line courses contained far less dialogue than the conventional face-to-face classes. Kearsley (1995) observed that computer-based instruction focused mainly on student-content, self-study lessons and materials. He believed that a greater emphasis in collaborative and cooperative learning and the growth of computer networks prompted educators to raise questions about the issue of social interaction. Because of studies like Kearsley's, the educational community has become more aware of the importance of promoting student interaction in on-line learning classes (Spitzer, 1998).

Recently, the writer completed a Ph.D. program from a distance education graduate school (Capella University). The majority of my courses were taken through the Internet by utilizing computer-mediated classes. Also, my dissertation study (Muirhead, 1999) involved exploring the issue of interactivity (communication, participation, and feedback) between students and between students and their tutors. My interest in on-line education comes from being a veteran student who has completed three masters' degrees and one doctoral degree from traditionally based educational institutions. My extensive academic background has given me a unique perspective on the problems and promise of distance education.

Challenges & Benefits of Distance Education

The value of computer-mediated instruction for today's adult learners should be evaluated by considering basic questions about the teaching and learning process. It is important that prospective distance education students ask a series of questions that will help them evaluate whether computer-mediated education will meet their learning needs. Unfortunately, some students fail to take the time to explore the nature of distance education and either have difficulty completing their doctoral programs or drop out of school. For instance, students are given the freedom to make numerous educational decisions, such as selecting dissertation advisors, and the wide range of choices becomes a major problem for them. Their prior educational experiences did not prepare them for learner-centered educational settings because most contemporary graduate schools have program guidelines that restrict students in their capacity to personalize their course work. Then, when they enter graduate distance schools they become academically paralyzed because they do not have the mind sets and learning experiences to create and manage their own educational programs.

My distance education experiences have given me the opportunity to evaluate two vital instructional Internet issues: the feasibility of encouraging professional and personal growth and the importance of having adequate instructional support (academic and affective) for the learner. Obviously, each of these issues has important implications for the distance learner. My brief discussion will seek to place each of these within the context of computer-mediated education and to offer insights to assist those who are currently involved or interested in the quality of teaching and learning in distance education schools.

Frequently, prospective on-line students wonder about the academic credibility of today's distance education schools. It is a vital question that raises legitimate concerns about how well their degree will be received by prospective business and educational employers. My selection of a school was based on six basic factors: regional accreditation in the United States, adequate learner support staff, course titles that would be easily recognized by educators and business personnel, financial costs that were realistic for an educator, program flexibility, and a learner-centered philosophy.

Distance educators view computer-mediated education as an excellent format designed to promote interaction with a diverse student population. On-line educators strive to create a democratic climate that encourages students to share their views and ideas freely. Students use written comments to share conceptual knowledge with their fellow students and professors. The process of reading and writing on-line promotes cognitive and metacognitive skills (Hannafin, Hill & Land, 1997). Students gain practical experience by translating their ideas into narratives that effectively communicate with other students. Writing is a powerful tool that offers numerous opportunities for students to display their depth of knowledge, organizational skills, reflective insights, and ability to explore new ideas (Greenberg, 1998; Repman & Logan, 1996).

My on-line educational experience affirmed that distance education can help individuals meet a variety of personal and professional goals. For instance, one of my short-term goals was to have my letters published in major newspapers. After my on-line education, my letters, which addressed vital social and educational issues, were published in *USA Today* (eight), *The Atlanta Journal-Constitution* (four), and twice in *The New York Times*. How did my Internet classes help me publish my work? In addition to the required written assignments, such as posting weekly comments for on-line discussion forums and term papers, the professors encouraged students to write on subjects that were relevant to their personal and professional interests. In my case, it involved writing on issues such as how to effectively integrate technology into high school classrooms. Also, my professors designed written assignments that could be used for future publication.

The absence of face-to-face contact with professors and other learners raises concerns about the affective dimension of distance education. Effective communication between teacher and learner is essential to sophisticated learning experiences, and academic collaboration is a vital integrating factor that helps learners to successfully negotiate graduate school. Distance learners cultivate a host of faculty relationships. Rossman (1995) related that learners devote significant time communicating with professors during class assignments, during comprehensive exams and during the thesis or dissertation process.

However, computer-mediated education creates unique risks for both tutors and learners. When teachers face heavy workloads from large on-line classes requiring large amounts of personal e-mails, phone calls, and discussion forum comments, the quality of on-line interactivity with students suffers. Also, if learners become discouraged by fellow classmates who appear to offer more intelligent discussion comments, it can have a negative impact on the quality and quantity of their discussion postings. As learners devalue their personal knowledge and life experiences, their on-line contributions can become more driven by an obligation to get through the experience (Rowntree, 1995).

My on-line experiences and research into interactivity (communication, participation, and feedback) have found that both students and professors have communication problems. Students complained about classmates who were constantly late in posting on-line discussion forum comments because they felt that the late posters reduced the number of contributions and had a negative impact on the quality of academic discussions. Although the majority of learners observed that their teachers gave them feedback on their work, the educational problem involved teachers who did not provide consistent, timely, and relevant feedback. Therefore, both teachers and learners experienced some communication problems with computer-mediated education (Burge, 1994; Muirhead, 1999).

The communication problems that occur during on-line courses reveal that both teachers and students must be active participants who are consistently involved in relevant academic dialog. A student-centered learning model requires that both professors and students be prepared to take personal responsibility for their role in the learning process. New students who enter distance education programs should receive clear instructions about the importance of being proactive and self-directed. Administrators must create seminars, workshops, and educational literature that gives students a clear picture of their role in creating sustained, two-way communication with their classmates and tutors (Sherry, 1996).

Successful Distance Education Students

What is the profile of a successful on-line student? Distance education literature reveals a strong emphasis on students who are motivated, have good time management skills, and are self-reliant. Ben-Jacob (1997) observed that "it is someone who understands time commitment and will keep pace with the course work. This personality type will be successful and will appreciate the lack of time constraints in a distance learning without abusing them" (p. 212).

Distance education contains a natural learning curve for students as they adapt to working in a computer-mediated educational setting. Often, students must become more active and self-directed in their study habits, which can be a major change for those who tend to be passive about their education (Kearney, 1997). Research studies are starting to identify the skills that are necessary for today's on-line students. Rowntree (1995) shared the following four primary competencies for students:

1. Computer skills – students should be able to effectively use word processing and communication software required for on-line discussions.
2. Literacy/discussion skills – students should be able to read and respond critically to complex and sometimes lengthy messages, use relevant written comments to develop ideas, raise questions, challenge student thoughts, and share their feelings.
3. Time management skills – students must have flexible educational plans that assist them in completing assignments in a timely manner. The students should have the necessary skills to read, comprehend, and

discern written course materials and a host of on-line discussion messages.

4. Interactive skills – students must have the cognitive ability to create alternative ideas or illustrations while encouraging other classmates by being patient and by respecting their needs to share on-line (net etiquette). Students must display respect for others by being flexible in the amount of and frequency of their on-line comments. Students should be willing to work with other students and help foster a dynamic learning group.

Current research studies should encourage administrators to explore ways to orient and educate new and existing faculty members to the on-line learning environment. Administrators need to investigate creative ways to promote relevant staff development plans that meet the needs of today's graduate educators. Instructors vary in their level of on-line experience, therefore their interactivity skills must be supported and encouraged through formal and informal professional development activities (Palloff & Pratt, 1999).

Computer-mediated education creates definite social interaction challenges for the teaching and learning process. Personally, my on-line education reflected a unique blend of positive experiences and several frustrating moments. For instance, my dissertation committee did an outstanding job of offering me timely advice by using numerous e-mails and telephone calls. Also, most of my on-line classes had intellectually stimulating on-line conversations that encouraged critical analysis of social issues. However, my primary learning problem involved students who failed to do their portion of the weekly group projects. In fact, more research is needed on how to help teachers effectively manage on-line group work assignments. Yet, my distance education degree program was a positive learning experience that has helped me achieve important personal and professional goals.

References

Ben-Jacob, M. G. (1997). Distance learning: An international perspective. *Journal of Educational Technology Systems*, 26 (3), 209-213.

Burge, E. J. (1994). Learning in computer conferenced contexts: The learners' perspective. *Journal of Distance Education*, 9 (1), 19-43.

Greenberg, K. (1998). Assessing writing: Theory and practice. In J. H. McMillan (Ed.) *Assessing students' learning*, San Francisco: Jossey-Bass, 47-59.

Hannafin, M. J., Hill, J. R. & Land, S. M. (1997). Student-centered learning and interactive multimedia: Status, issues, and implications. *Contemporary Education*, 68 (2), 94-99.

Kearney, T. (1997). *Self directed learning at Algonguin College*, http://node.on.ca/tfl/integrated/fieldnotes/nuun2.html

Kearsely, G. (1995). *The nature and value of interaction in distance learning*, http://www.gwu.edu/-etl/interact.html

Muirhead, B. (1999). *Attitudes toward interactivity in a graduate distance education program: A qualitative analysis*, Parkland, FL: Dissertation.com

Palloff, R. M. & Pratt, K. (1999). *Building learning communities in cyberspace: Effective strategies for the online classroom*, San Francisco: Jossey-Bass.

Repman, J. & Logan, S. (1996). Interactions at a distance: Possible barriers and collaborative solutions. *Techtrends*, 41 (6), 35-38.

Rossman, M. H. (1995). Negotiating gradate school: A guide for graduate students, Thousand Oaks, CA: Sage.

Rowntree, D. (1995). Teaching and learning online. A correspondence education for the 21st century? British Journal of Educational Technology, 26 (3), 205-215.

Sherry, L. (1996). Issues in distance learning. International Journal of Educational Telecommunications, 1 (4), 337-365.

Part 2

Training Faculty for the Online Environment

Flying or Falling: Benefits and Pitfalls of Online Peer Review Programs in Distance Education

Kim Blum and Brent Muirhead

Blum, K. and Muirhead, B. (2005). "Flying or falling: Benefits and pitfalls of online peer review programs in distance education." *International Journal of Instructional Technology and Distance Learning*, 2 (3), 41-47. Available: http://itdl.org/Journal/Mar_05/article04.htm http://itdl.org/Journal/Mar_05/Mar_05.pdf

Editor's Note: *At the beginning of my teaching career I had the good fortune to watch a tutor teach lip-reading to 3 year old deaf child at the John Tracy Clinic for the Deaf at University of Southern California. At the end of the session, the teacher came into our viewing room behind a one-way glass mirror. Her colleague immediately went through a list of suggestions to make the lesson more effective. I was shocked. I thought the teacher had done a brilliant job. When the teacher left I questioned the critical comments. "We do this for each other at every session. It is the only way we can learn; the only way we can improve." At that moment I realized that mutual trust and a common goal opened the way for continuous improvement of a life-changing process for these children. The process brought out the best thinking of teachers-helping-teachers, resulting in outstanding performance. That is what this article is about.*

Introduction

One author of this article had a rare opportunity to go river rafting in Australia. On the second trip, the river guiding company placed the author in a raft with the author's grown son and six members of an All Aussie Rules over-30 football team. An Aussie All Rules Football game is played with few fixed rules, no padding, and men over seven feet tall that weight at least 250 pounds of muscle. They have massive scars and scrapes from playing the game.

The author felt, as a result of a previous successful rafting trip where rapids were very difficult, this lower-classed river grade should be quite easy. Rivers for rafting are graded by difficulty, one being the easiest and six almost impossible to navigate by a paddle and raft. The author felt that previous experience on a class six river ensured that, because of this river's easier classification, the raft would *fly* down the river in an enjoyable manner. The author was wrong.

After boarding the raft, the river guide instructed his team on how to use the paddle, lean right, lean left (to avoid rocks and tilt the boat), forward paddle, and back paddle. The worst-case instruction was given and all rafting team members practiced this successfully in the entrance's calm pool waters – get down and hold on (to the rope), lift the paddle up out of the water. When the guide issues the instruction to *hold on*, rafters are typically afraid because *hold on* means the upcoming rapids are very difficult and wild. After the initial training, the team felt ready to face the turbulent waters of the first rapids. The author's previous experience added confidence. The raft was *flying along the river headed towards the rapids* and confidence levels were high.

As the raft approached the rapids, excitement and cheering erupted from paddlers of the All Aussie Rules Football team. All rafting paddlers closely followed the guide's instructions except the author, who promptly *fell* out of the raft and into the swirling rapids, *failing to succeed in spite of previous training*, and in error about level of ability.

Similar to the author's rafting experience, a successful online peer review is received by online faculty as a wonderful flying feeling of success comparable to the feeling of teamwork and exhilaration of a successful manned raft. An online peer review program can successfully further develop faculty after initial training (Carr, 2005). Unfortunately, an online peer review can also resemble falling rafters as resentful faculty members receive an *evaluation* instead of coaching on online best practices.

This article discusses the pitfalls and benefits of online peer review programs, sharing experiences from administration in higher education, and comparing administration experiences with an online faculty member who has been through the online peer review process. Implications of Peer Review Programs for higher education online faculty and administration are included.

Flying – Purpose of a Successful Online Peer Review Program

According to the U.S. Department of Education (1999), one in three higher education institutions in the United States offered some type of distance education during the 1997-98 academic years. Nearly 80% of all 4-year and almost two thirds of 2-year public institutions made distance education available to students during this period. Of the institutions that did not offer distance education, 20% planned to offer some type of remote delivery service by 2002 (U.S. Department of Education, 1999). Ross and Klug (1999) found that one of the most effective things an institution can do to promote greater receptivity and support for distance education is to enhance faculty knowledge of distance education best practices. Peer review programs are one of the tools designed with the goal of helping and coaching faculty with best practices for success after initial online faculty training (Peer Monitoring of TRIO Programs, 2005). This is typically implemented when the faculty member has taught at least one online course.

A successful online peer review program rests on the concept of equal-in-status faculty members coaching other faculty members on best practices, giving tips on how to handle online discussions, assignments, feedback and materials, and communicating to the peer reviewee with a positive tone in a collaborative manner. Adams (2002) suggested that the best online faculty support systems are those where online faculty participate in a collaborative team, Faculty in the study expressed a strong degree of satisfaction with support provided by the collaborative model.

At University of Phoenix, Peer Reviewers in the School of Advanced Studies (SAS) observe the online class and provide tips to the faculty member written in a positive tone. Praises are included with all tips, based on a guideline of best practices proven effective online. A *successful* online peer review program should result in faculty incorporating suggestions and feeling that the results are not punitive in nature. Proponents maintain that peer assistance and reviews will help floundering teachers and possibly save their jobs (Pushing for Peer Reviews, 2005). "Opponents argue that it will pit one teacher against another and threaten the unity of local union associations" (para 10). The faculty member should feel that despite the rocks and bumps in the river, the river guide – the reviewer – gave good instructions to keep from falling. In the case of the author, the guide hauled the rafter back in by the life jacket, and proceeded to re-coach the rafter on how to stay in the raft so that the raft could continue to fly with success down the river rapids. A successful online peer review should *help faculty fly instead of fall.*

Man the Paddles – The Processes of Online Peer Reviews

All faculty in SAS have yearly Online Peer Reviews. Newer faculty are reviewed after three months in order to provide more tips on best practices at an earlier stage. The faculty member receives notification of the review in the last week of an 8-week course, student feedback for one successful student and one struggling student is requested, and the reviewer observes the online class newsgroups and feedback. The trained peer reviewer observes the newsgroups in an unbiased manner, using a checklist of best practices as a guide for key areas including materials, discussions, classroom management, tone, and feedback. For example, SAS has found that online students achieve maximum student learning following the adult as an active leaner model (Knowles, 1984), when the professor facilitates discussion by relating work experiences, theories, and asks questions to stimulate higher levels of Bloom, Bertram and Krathwohl (1964) levels of critical thinking from application to synthesis and evaluation.

The online peer reviewer at SAS reports on the findings and incorporates praise and suggestions. The review is sent anonymously by a processor (the reviewer's name is not released) to the faculty member for review and signature. Follow-up procedures include coaching, addressing questions, and explaining processes and purposes if the faculty member is unclear or has some trepidation about the review.

Fly Instead of Fall: Pitfalls to Avoid in Online Peer Review Programs

At the School of Advanced Studies (SAS), the underling mission of the online doctoral peer review program ensures that subsequent evaluative assessments by administration, triggered by results of a peer review, do not occur *as an evaluation*. It is critical that administration does not use peer review for any purpose other than faculty development. Online faculty fear that evaluations can result in punitive scheduling or pay reductions. The word *evaluation* is not consistent with goals of the peer review program. Its core mission is faculty-helping-faculty.

SAS determined that administration must avoid acting on information presented in peer reviews. The goal is to help faculty succeed and findings should be highly confidential. A distinct and separate faculty evaluation process must be clearly differentiated from the Online Peer Review program. The Faculty Evaluation process is based on findings of the 1981 Teacher Peer Review program that successfully developed teachers (Pushing for Peer Reviews, 2005) positing that peer reviews can be positive developmental experiences if used in this manner.

For example, one author of this article participated in an additional online peer review program. One hundred and sixty-five faculty complaints resulted from peer reviews because of the evaluative nature of the comments recorded by the peer reviewers. In spite of reassurance from administration, follow-up administrative actions stemmed from information noted in the reviews. The cycle of mistrust escalated until peer review processes and communications were changed.

The opposite occurred in SAS. After two years of online peer reviews, SAS has not received any faculty complaints. Comparing patterns in responses and plans, the author concluded that there were several reasons why one online peer review program succeeded where another failed. The successful peer review program had key differences not found in the unsuccessful program:

- Invitations to become SAS Online Peer Reviewers were the result of *months* of research on all SAS faculty. Only the best of the best faculty were invited based on SEOCS, faculty evaluations and observing many of their online classes.
- Extensive training of Online Peer Reviewers in a formal training workshop presented the purpose and guidelines as well as additional time to practice reviews. Follow-up trainee responses received individual coaching on tone, how to avoid certain words that could be perceived as negative, and tips on how to formulate coaching to ensure a positive review. As part of the training, instruction and practice focused on the sandwich method of praising, tips, and ending in praise as an effective online coaching method. This follows finding by Wolf (2003) that the choice of words in a peer review is critical.

- Peer Reviewers conducted one real review, the trainer edited the review, and peer reviewers received additional coaching. A decision to continue with the peer reviewer or decline to award additional reviews depended on the outcome of the analysis.
- Establishment and maintenance of a Peer Review lounge and a questions contact person.
- SAS faculty were continually reminded that the purpose of the Peer Review Program is faculty helping faculty. This is not an evaluation. Peer reviews are never punitive in nature, and scheduling or pay is never affected. Reminders came to all faculty from *top leadership in SAS* on a frequent basis.
- Faculty could see, after an extended period, that administration truly modeled the purpose of the peer review with faculty coaching faculty with no punitive outcomes., faculty were never contacted after any review and coached as an evaluation and scheduling or pay was not affected. Reductions in the levels of faculty fear resulted, and the grapevine did the rest as faculty relaxed and accepted coaching in reviews.

Faculty Perceptive of Online Peer Reviews: Benefits (Flying instead of Falling)

Reflective online faculty have a positive and visionary perspective on professional development. Educators realize that teaching and learning is an evolving process which requires constant attention, experimenting with various instructional strategies and investigation to acquire more effective methods (Brookfield, 1995). Today's online instructors should strive to be life-long learners who realize that it takes time and diligent study and practice to become an expert. Fear of falling must be ignored as the online educator receives tips from the reviewer – the guide.

Cognitive psychologists stress that it often takes ten years for a person to become an expert (Anderson, 2005; Schacter, 1996). Experts have " …a highly refined and powerful form of elaborate encoding that enables experts to pick out key information efficiently and to imbue it with meaning by integrating it with preexisting knowledge" (Schacter 1996, p. 49). Experts possess two kinds of expertise: routine and adaptive. Routine expertise enables the individual to do problem solving in an effective and timely manner. Adaptive expertise skills are those which help people to develop strategies that fit the particular situation (Eysenck, 2001).
Online distance faculty should consider peer reviews as an intentional way to cultivate their expertise. Teaching should be considered a craft and the word *craft* highlights that teaching requires the acquisition and refinement of unique skills and knowledge. It brings a sense of dignity to teaching as people focus upon producing quality instructional materials, intellectually stimulating online discussions and relevant feedback on student assignments. Online faculty who embrace teaching as a craft will be more likely to operate by an internal standard of excellence that helps them to cultivate a work ethic and be a colleague who willingly shares best practices with others. Additionally, a growing sense of confidence is characteristic of reflective teachers because it enables instructors to avoid the paralyzing effect of always having to prove or compare themselves to others (Sennett, 2003).

Research studies on experts in distance education have found that skill development and developing expertise are tied closely to the timing, quality and quantity of deliberate practice. The use of mentors plays a vital role by providing guidance, monitoring progress and establishing appropriate goals that promote optimal growth. Bruning, et al (2004) noted that research indicates deliberate practice can help less talented people surpass the achievements of those who are more talented. Skill acquisition among young athletes, mathematicians and musicians indicates that individuals follow a similar learning process. The key is having the appropriate guidance and intentional practices that cultivate superior performance. "The best practice occurs under the watchful guidance of a skilled mentor who helps the developing expert set goals and monitor improvement" (Bruning et al, 2004, p. 177).

Professional staff development programs can utilize some of the principles found in effective mentoring through the peer review process. Online distance education faculty can benefit from the insights of a peer reviewer who can provide clarity to their work and being receptive to insights from the review on what the faculty member is doing well and what areas that for improvement is critical. Online teachers can be proactive by participating in conferences, reading literature, sharing with their colleague's best practices and instructional resources and sharing tips learned in peer reviews with others.

The University of Phoenix encourages its SAS online distance education faculty to refine facilitation skills and instructional practices using online peer reviews, and by encouraging faculty to participate in a variety of free online workshops that are held both online. The following list of workshops is a partial list of the professional activities that are available free of charge to online faculty members (Faculty Development Workshops, 2005):

New Student Facilitation: Helping Learners Succeed - focuses on resources and strategies facilitators can use with new students. Addresses common characteristics of new SAS students and present methods for helping entry-level students develop core competencies.

Online Tone - emphasizes importance of proper tone in an online classroom, focusing on the application of appropriate tone when responding to and offering feedback to students. It will enable faculty to identify and develop communication skills that are necessary for teaching in the online classroom.

Critical Thinking - introduces the components of the critical thinking process and identifies various methods for teaching critical thinking skills. Topical areas include taxonomies and frameworks for understanding critical thinking, and cognitive abilities and affective dispositions in critical thinking.

Learning Teams - facilitation techniques and evaluation methods. Participants will explore Learning Team processes, including conflict resolution, behavioral guidelines, and factors affecting team interaction.

Difficult Student - various approaches for resolving several types of conflicts. Participants will examine team dynamics and strategies for helping students with team approaches.

Evaluating student writing - develop clear writing assignments, assess student papers effectively, and help students improve their writing skills. The workshop provides a review of writing principles and includes materials to assist participants to establish clear grading criteria for written work and provide effective feedback to students.

Plagiarism - provides the knowledge and tools necessary to detect plagiarism.

Student Evaluation - addresses grading plans, criteria for grade changes and grade grievances, and qualities of effective feedback

Some online educators have legitimate concerns about peer review evaluations being accurate and objective toward the teaching and learning process. Educators fear having subjective reviews that are politically motivated or have excessive focus on minor administrative details (i.e. alternative email address in a syllabus). It is important that the review process be based on objective and measurable evaluation standards and that administered by trained personnel who understand the dynamics of the teaching. Teachers can profit from constructive insights into their online work and sharing with colleagues who relate to the challenges of distance education. Brookfield (1995) eloquently describes how reflective teachers maintain a sense of high academic expectations and a positive mindset toward the educational process of online successful acceptance and embracement of the results of an online peer review:

> *Critically reflective teachers learn from the past but live in the present with an eye to the future. Because they know that every class has its own dynamic, they cease to rely only on methods and activities that have worked in the past. Their practice is infused with a sense of excitement and purpose. There is a continual checking of assumptions, a continual viewing of practice through different lenses, and a continual rethinking of what works, and why. Knowing that each new group of students brings its own challenges, they see their life as lived in forward motion. Because tomorrow is unpredictable, there is always the chance for new learning from practice. (p. 265)*

Implications and Conclusions

Online Peer Reviews can be a win-win situation for faculty and administration if the program is established in a similar manner to the rafting guide coaching the rafters. Fear of falling must be overcome by supportive administration, careful peer review selection and training, and communication to online faculty about the non-evaluative nature of the peer review. Online educators should be educated about coaching and helpful objectives of the online peer review. They should be encouraged to share tips and best practices with colleagues and be receptive to suggestions and changes. Administration should carefully plan and monitor any online peer review program to ensure that it is effective in meeting its goals. The successful online peer review is to help faculty fly instead of fall, and encourage online faculty to participate in faculty workshops for further development.

References

Adams, J.R. (2002). *Implementing a collaborative support model for online faculty: a case study.* Dissertation. University of Virginia. Available at Proquest.

Anderson, J. R. (2005). *Cognitive psychology and its implications* (6th ed.). New York, NY: Worth Publishers.

Bloom, B.S., Bertram B. Mesia, & D. R. Krathwohl (1964). *Taxonomy of Educational Objectives* (two vols: The Affective Domain & The Cognitive Domain). New York. David McKay.

Brookfield, S. (1995). *Becoming a critically reflective teacher*. San Francisco, CA: Jossey-Bass.

Bruning, R. H., Schraw, G. J., Norby, M. N., & Ronning, R. R. (2004). *Cognitive psychology and instruction* (4th ed.). Upper Saddle River, NJ: Pearson.

Carr, J. F. (2005). Standards to practice. *Journal of Staff Development, 26* (1), pg 48.

Eysenck, M. W. (2001). *Principles of cognitive psychology* (2nd ed.). New York, NY: Psychology Press.

Knowles, M. (1984). The Adult Learner: A Neglected Species (3rd Ed.). Houston, TX: Gulf Publishing. Retrieved March 3, 2005, from: http://tip.psychology.org/knowles.html

Peer Monitoring of TRIO Programs (2005). *Peer Monitoring of TRIO Programs Helps*

Find Ways to Save Money; Ensures Compliance with Federal Regulations

Northwest Association of Special Programs. Retrieved, March 3, 2005, from: http://users.moscow.com/mareese/bestpractices/peer_review.html

Pushing for Peer-Review (2005). School Administrators Article. *Education World*, Retrieved March 3, 2005, from http://www.education_world.com/a_admin/admin047.shtml

Russ, G. J. & Klug, M.G. (1999). Attitudes of business college faculty and administrators toward distance education: A national survey, *Distance Education*, *20* (1) 109-129.

Schacter, D. L. (1996). Searching for memory: The brain, the mind, and the past. New York, NY: Basic Books.

Sennett, R. (2003). *Respect in a world of inequality*. New York, NY: W. W. Norton.

University of Phoenix Online (2005). Faculty Development Workshops.

U.S. Department of Education, National Center for Education Statistics. (1999). Distance education at postsecondary education institutions: 1997-98. NCES 2000-13. Washington, DC: Author.

Wolf, W. J. (2003). Student Peer Reviews in an Upper-Division Mathematics Class, *Exchanges, The Online Journal of Teaching and Learning in the CSU*, September. Retrieved March 3, 2005, from http://www.exchangesjournal.org/classroom/1156_Wolfe.html

The Right Horse and Harness to Pull the Carriage:
Teaching online doctorate students about literature reviews, qualitative, and quantitative methods that drive the problem

Kim Blum and Brent Muirhead

Blum, K. and Muirhead, B. (2005). "The right horse and harness to pull the carriage: Teaching online doctorate students about literature reviews, qualitative, and quantitative methods that drive the problem." *International Journal of Instructional Technology and Distance Learning*, 2 (2), 29-45. Available http://itdl.org/Journal/Feb_05/article03.htm. http://itdl.org/Journal/Feb_05/Feb_05.pdf

***Editor's Note**: An important goal of a Doctoral Dissertation is to make a significant contribution to knowledge in the discipline of choice. That requires in-depth knowledge of related research and assurance for the doctoral committee that the topic and issue to be studied is indeed significant. The authors of this paper address the cart-before-the-horse problem where doctoral candidates decide the research method prior to research of the literature and development of the research question.*

Introduction

Doctoral students often declare that the choice of a qualitative design is preferred because students fear statistics. The authors of this article have heard this statement from online doctoral students many times. A student's position about statistics often changes when he or she discovers that the only way to resolve to a pressing dissertation problem may be quantitative or a mixed method that requires descriptive statistics; *all* good qualitative designs have *some* quantitative aspects (Yin, 2004).

Once a student understands that the dissertation question or problem drives the choice of methodology, he can focus on choosing an appropriate design for his research. The student must know different qualitative and quantitative designs in order to choose and defend his chosen methodology. His choice should prevail over past biases, fear, or concerns about adaptation for an online medium. He must become expert in methodology that answers or solves the research problem. Furthermore, he must understand the importance of the literature review. That is the purpose of this article.

The Challenge of Doctoral Dissertations

The doctoral dissertation is one of the most intense academic experiences that individuals encounter in their lives. One of the tragic interpersonal moments in the academic community is when individuals share that they were not able to complete their dissertation. The initial ABD –*All But Dissertation* that signifies this academic state is a reminder of the difficult journey to earn the coveted doctoral degree. Curran-Downey (1998) related "being in graduate school and making it all the way through the classes, the exams and the defense of the dissertation is ---take your pick--- marathon, wasteland, jungle, rat race" (para 6). The high attrition rate for students in American doctoral programs is a dark aspect of doctoral education that continues to plague the higher education community. It reflects a degree of failure at the institutional level to assist talented individuals in what is often considered the ultimate academic challenge and represents a tremendous waste of human resources that often undermines career plans.

An important step in developing a research plan is facing the fears associated with writing. A major issue for some students is a negative mindset concerning research writing. Some view the dissertation project as a near impossible task because they doubt their abilities and are fearful of having their proposal rejected. Severe emotional turmoil may diminish a student's ability to work through the more difficult phases of his dissertation. It can halt the writing process and some individuals are tempted to abandon their degree program. Jensen (2005, para 5) encourages a student to identify when what she calls the *Inner Critic* is attacking by being alert to negative signs:

- **Mental signs**: self-criticism, procrastination, excessive worry, negative thoughts about your options, black and white thinking, confusion, feeling stuck.
- **Emotional signs**: loss of motivation, discouragement, feelings of failure, depression, low self-esteem, fear, feeling powerless.
- **Physical signs**: lack of energy, fatigue, sickness or injury.

It is crucial to implement strategies to overcome mental or psychological barriers to keep the dissertation process moving steadily forward towards completion. The key is to be proactive, dedicated, and create a realistic study plan that breaks the dissertation into manageable parts. Maxwell (1999) recommends measuring personal commitment by examining how much time and energy is devoted to research and writing. A good question to ask yourself, do your daily activities support your goals? The next step is to affirm that certain goals are worth great personal sacrifices. Morris (1994, p. 286) developed seven principles of success that help individuals to formulate goals for their personal and professional lives.

- We need a clear **conception** of what we want, a vivid vision, a goal or set of goals powerfully imagined.
- We need a strong **confidence** that we can attain our goals.

- We need a focused **concentration** on what it takes to reach our goal.
- We need a stubborn **consistency** in pursuing our vision, a determined persistence in thought and action.
- We need emotional **commitment** to the importance of what we're doing, and to the people with whom we're doing it.
- We need a good **character** to guide us and keep us on a proper course.
- We need a **capacity** to enjoy the process along the way.

Research Skills

Tremendous expansion of electronic information resources has exponentially increased research opportunities. This fact makes it important that students are properly prepared to use the new technologies. Hart (1998, p. 5) has identified two basic types of skills required for researchers:

1. **Core skills and abilities**- while the differences make subject disciplines distinctive, there exists a common core of skills and attitudes that all researchers should possess and should be able to apply in different situations with different topics and problems.
2. **Ability to integrate theory and method**- research for all disciplines involves an understanding of the interrelationship between theory, method and research design, practical skills and particular methods, the knowledge base of the subject and methodological foundations (Hart, 1998, p. 5).

Graduate degree programs are an excellent place to develop and refine research skills. Hart (1998) states, "it is important that research education and training does produce researchers who are competent and confident in a range of skills and capabilities and who have an appropriate knowledge base" (p. 6). Students create projects that demand having effective skills in conducting a literature review, developing a research design, writing and presenting their study. Therefore, it is vital that students must have a sound knowledge of the entire research process to produce research that demonstrates quality work.

The concept of scholarship should include competent investigations and it should transcend multiple activities while involving a diversity of skills and activities. The process requires knowing how use one's imagination and creativity to read and interpret arguments, organize ideas, make connections between academic disciplines and effectively write and present ideas. The scholar must maintain a mindset that is open to new and innovative research methods and they should be willing to experiment with information and ideas. The skill of integration is a vital element in scholarly work. According to Hart (1998), "integration is about making connections between ideas, theories, and experience. It is about applying a method or methodology from one area to another; about placing some episode into a larger theoretical framework, thereby providing a new way of looking at the phenomenon" (p. 8). Integration demands individuals be systematic and reflective in their investigation endeavors. It requires being patient while re-examining and interpreting knowledge and being open to new perspectives on existing theories.

Graduate students should develop a research plan that helps them focus on developing skills that foster integration in their work. They should realize this might take time and substantial effort. It is encouraging to realize that studies on those who are associated with being a genius reported that they were very hard working individuals. Howe (1999) observes, “like ordinary men and women, major authors have had to invest large amounts of time and effort in order to become unusually skilled. Their heavy dependence on training and preparation is one of the many aspects of the human experience that creative geniuses share with other people.” (p. 175)

The Literature Review Process

Reviews vary greatly in the scope and depth of material examined. The selection of study topic is a key factor and students should be avoid selecting topics that transcend the requirements of their degree programs. A primary reason for studying the literature is to demonstrate familiarity with research in the field and establish credibility for the individual's current investigation. The literature review should reflectively build upon the work conducted by other researchers who are part of a larger intellectual community (Neuman, 1997).

A metaphor that helps drive home the importance of the literature review process is a good horse without a harness. The horse symbolizes the problem, but without a solid harness the horse cannot pull the weight of the carriage. A literature review that is well designed and thorough gives the problem weight. Everything that has been done before is pulled with the problem and the researcher makes it clear that despite the heavy carriage of *literature*, the horse can accomplish the task because the harness is strong. The harness is a solid literature review.

The dissertation committee expects students to produce literature reviews that uphold high academic standards. Neuman (1997) described four major literature review objectives:

1. **To demonstrate a familiarity with a body of knowledge and establish credibility**. A review tells a reader that the researcher knows the research in an area and knows the major issues. A good review increases the reader's confidence in the researcher's professional competence, ability, and background.
2. **To show the path of prior research and how a current project is linked to it**. A review outlines the direction of research on a question and shows the development of knowledge. A good review places a research project in a context and demonstrates its relevance by making connections to a body of knowledge.
3. **To integrate and summarize what is known in an area**. A review pulls together and synthesizes different results. A good review points out areas where prior studies agree, where they disagree, and where major questions remain. It collects what is

known up to a point in time and indicates the direction for future research.

4. **To learn from others and stimulate new ideas**. A review tells what others have found so that a researcher can benefit from the efforts of others. A good review identifies blind alleys and suggests hypotheses for replication. It divulges procedures, techniques, and research designs worth copying so that a researcher can better focus hypotheses and gain new insights (p. 89).

The literature review helps the student to understand the historical context of their subject while focusing on current research efforts (Hart, 1998). Literature reviews help students learn how to identify areas of concern and become aware of any neglected issues.

Literature reviews can stimulate student to make changes to their topic choice because, during the literature review process, individuals sometimes discover a more important topic to address in their doctoral research. Also, the literature review can help a student to develop a framework for his own study by noting what others have done with their particular research design such as the data-collection techniques. Reading the literature provides an overview of the major theories and ideas that guided previous researchers. Students must have a good working knowledge of the key concepts in their field of study to develop an appropriate vocabulary and database for writing and communication of ideas (Hart, 1998).

Literature reviews should cover the material related to the research problem. The wise researcher will conduct a review including the following sequential steps:

- **analyze** the problem statement.
- **search** and read secondary literature.
- **select** the appropriate index for a reference service or database.
- **transform** the problem statement into search language.
- **conduct** a manual and/or computer search.
- **read** the pertinent primary literature.
- **organize** notes.
- **write** the review

(*Introduction to educational research*, 2003, p. 73).

Students must systematically investigate the literature and cover both electronic and print sources of information. One part of the plan should contain a basic record keeping system that will help organize work accomplished to develop leads for future research and avoid loosing valuable data. For instance, students can save links to Internet articles as favorites or bookmarks in their web browser. This makes it much easier to locate the article for future use. Students can improve their ability to recall important ideas and concepts by creating a basic set of questions prior to reading an article (Locke, Silverman & Spirduso, 1998).

A review of the literature requires a systematic analysis and appraisal of each research article. Begin the process by creating a descriptive summary of the study. Next, analyze the article to understand the author's purpose and decisions. Hart (1998) notes "you are aiming to make explicit the nature of the connections between the methodology choices an author has made and the data they have collected through to the interpretations they have made of their data" (p. 56).

Identify the style and structure of the author's reasoning. Explore issues such as methodological assumptions, aims, and purposes of the research and evidence presented. The critical analysis of articles is one of the more demanding aspects of the literature review but it helps the student discern the quality of work produced within the field (Hart, 1998).

Students should strive to demonstrate their careful and reflective investigation of research studies and vital information resources. Their discussion should reflect a vivid awareness of theories and arguments and acknowledge both their strengths and weaknesses. A balanced review will affirm the usefulness and merits of a theory and at the same time explore areas that need improvement. Research criticism must be based on understandable arguments that identify inadequate or flawed evidence or reasoning. Students may be able to use aspects of different writers work to develop their own synthesis of ideas and offer new perspectives on their subject matter.

The following criteria are useful to evaluate information (Lawlor & Gorham, 2004, p.17):

- **Authority**—who is the author of the material?
- **Date of publication**—when was the information published?
- **Type of publication**—is the material published in an academic article, a newspaper or a textbook?
- **Relevance of content**—how relevant is the material to your research?
- **Hypotheses/Purpose**—what led the author(s) to their hypotheses? What is overall purpose?
- **Methods employed**—what methods were utilized by the author(s) and why?
- **Results**—what results were obtained?
- **Support for hypotheses**—were hypotheses supported?
- **Conclusions/Recommendations**—what were the author(s) conclusions/ recommendations?
- **References**—does the author provide a detailed list of references/bibliography?
- **Cited or reviewed**—has the article, book or website been cited or referred to by other authors?

Literature reviews require patience and diligence to carefully select and examine research studies. Gall, Borg and Gall (1996) highlight seven common mistakes that people can make during the review process:

- Does not clearly **relate the findings** of the literature review to the researcher's own study.
- Does not take sufficient time to **define the best descriptors and identify the best sources** to use in reviewing the literature related to one's topic.
- Relies on secondary sources rather than on **primary sources** in reviewing the literature.

- Uncritically accepts another researcher's findings and interpretations as valid, rather than **examining critically all aspects of the research design and analysis**.
- Does not **report the search procedures that were used in the literature review**.
- Reports isolated statistical results rather than **synthesizing** them by chi-square or meta-analysis methods.
- Does not **consider contrary findings** and alternative interpretations in synthesizing qualitative literature (pp. 161-162).

Graduate students sometimes err in their approach to studying the literature by striving to read *everything* that is remotely related to their topic. The result is to waste time on trivial articles and materials. A good literature review will focus on the most important and relevant documents. Students can spend so much time reading that they fail to write about their project. People tend to choose reading over writing because it is less demanding than writing. The writing process is another way to reflect upon ideas and foster a better understanding of information relationships (Language Center, 2004).

Literature reviews build upon established knowledge. Researchers read other studies to glean insights from the academic community that provide direction for their own work by noting any gaps or weaknesses in previous investigations. Contemporary literature reviews can be quite diverse in their scope and depth of knowledge due to the intent of the reviewer. Dissertation reviews must transcend being merely familiar with the material. The literature review is a scholarly essay that establishes credibility for the entire research project. Therefore, it is vital to create a specific review focus that offers the best perspectives on significant studies related to the research problem. Neuman (1997, p. 90) highlights six review types:

1. **Self-study** reviews increase the reader's confidence.
2. **Contex**t reviews place a specific project in the big picture.
3. **Historical** reviews trace the development of an issue over time.
4. **Theoretica**l reviews compare how different theories address an issue.
5. **Methodological** reviews point out how methodology varies by study.
6. **Integrative** reviews summarize what is known at a point in time.

The six review types reflect different approaches and research goals in the literature review process. Self-studies are considered to be personal investigations and lack the depth of coverage of a formal review. Students must devote adequate time to studying primary and secondary sources to avoid missing significant information related to their research problem. It is wise to be patient and open-minded when evaluating the material to avoid hasty interpretations or generalizations about previous studies. The authors encourage students to use the following literature review checklist to improve the quality of their work:

- show a **clear understanding** of the topic
- cite and discuss all **key landmark studies**
- develops, through gradual refinement, **a clear research problem**
- states **clear conclusions about previous research** using appropriate evidence
- shows the **variety of definitions and approaches** to the topic area
- reaches sound recommendations using **coherent argument that is based on evidence**
- shows a **gap in existing knowledge**

(Hart, 1998, p.198)

The Problem Drives the Design

The research problem always drives the choice of the initial methodology (Creswell, 2004; Simon & Francis, 2004; Yin, 2004). A solid research plan defends how the research question or hypothesis is going to be answered using the best method available – the methodology the student chooses to solve or answer the problem.

A metaphor to elaborate on how the problem drives the choice of methodology design is appropriate….

> *The author of this article once bought a book on how to train a horse to pull a carriage with the desire to ride in a horse-drawn carriage for Christmas; in the country children are taken on yearly caroling hay rides to annoy the neighbors once a year. Up to this point, a tractor and a long trailer loaded with hay was employed.*
>
> *The instructions in the carriage book said to locate a particular type of horse-drawn carriage. After extensive researching, a place was located that sold Amish furniture that had a carriage outside. Inquires were made to order an appropriate carriage from the Amish Country in Ohio. After considerable expense, a gorgeous two-seater carriage arrived complete with velvet seats.*

Now at this point, a carriage was purchased -- *think of the carriage as the problem statement.* It was a problem, sitting in the yard, with no way *to solve* it (to make it move). Neither a harness nor a trained carriage horse trained to pull the carriage was available. Knowledge of what type of harness or *design needed to solve this problem* was missing. After considerable reading and interviewing experts to gain design knowledge on harnesses, a harness was purchased that would pull the carriage.

One of the authors of this article reflected that, with a little work, a previously purchased horse could be trained to pull the carriage by following the instructions in the carriage book.

> *Unfortunately, the horse rolled her eyes when the little thing over her tail that is critical to pulling a carriage was installed. The horse tolerated the uncomfortable heavy harness around her neck. The horse allowed the trainer to lead her to the corral in the stiff harness without the carriage. Nevertheless, when the driver tried to make the horse walk in a*

> *straight line, the horse, a 25-year-old ex-cutting (cow cutting) horse translated long reins into directions with a driver yelling -- walk in circles -- called lunging. Subsequent attempts to hook the horse up to the carriage using the harness resulted in circles.*

Similar to this metaphor, if the design is chosen without knowledge of how to apply it, the research problem is difficult to solve. The problem (horse) goes around in circles; some students wind up with an all but dissertations (ABD), and like the fancy carriage, the dissertation rests unpublished, in the field.

Statistics are only one of the straps on the harness attached to the horse. Without proper training on how to *pull the carriage* or write the research plan, the strap will break**.** If the methodology will not pull the cart or solve the problem, the entire process will not move forward.

Learning about different research design choices is the first step to writing a solid research proposal and dissertation.

Qualitative vs. Quantitative Methods: Which Design to Choose?

Abusabha and Woelfel (2003) argued that "researchers in sociology, psychology, nutrition, public health, and many other related fields have been engaged in a long-standing debate about the use of qualitative vs. quantitative approaches to research" (p. 1). Qualitative research is often labeled as soft, subjective research (Creswell, 2004), while quantitative methods are classified as rigid because quantitative methods puts human behavior, and thus the data, into unrelenting categories (Yin, 2004). Creswell (2002; 2004) posits that qualitative research goes hand-in-hand with literature searches because the researcher first looks for major ideas in previously done studies, as well as recycling through original data several times to spot themes and patterns. Regardless of the method design chosen to solve the problem, researchers must be prepared to defend the choice – how will the methodology give the researcher the answer or test the data to obtain valid results that are reliable and answer or solve the problem? There are two general types of methodology called qualitative and quantitative research methods.

Qualitative Research Methods

Qualitative research methods are designs that *explore* information (Yin, 2004). Qualitative research methods are designs chosen when the problem is focused on what is or was occurring, inquiring about processes, views, and detailed information. Qualitative methods can generate theories based on the data, where no preconceived models exist. Qualitative methods attempt to describe and interpret data with the goal of detailed and well-rounded information, identifying researcher biases and assumptions.

Because qualitative methods results do not use statistically significant tests, findings are more reliable if the or data are triangulated (Creswell, 2004; Yin, 1991). Triangulation means that different methods with the same data. Triangulation *also* means that the data came from many sources such as archival files, interviews, articles, observations, and patterns are noted using the parameters chosen by the researcher supported by major theories and measured by a validated unit of measurement deemed critical to solving the problem (Yin, 2004) are explained. For example, one online doctorate student used leadership placement practices as the unit of measurement to analyze data in foster care children files. The parameters were housing practices, biological visits, and mental health services – these were the initial variables used to explore patterns; data could discover new patterns and will be explained by the researcher. Pilot studies on a sub-set of the same population are a means to test the methodology in qualitative studies and further triangulates the data.

Qualitative method results can rarely be generalized for a larger population because qualitative data cannot be tested for statistical significance (Creswell, 2004; Sproull, 2004). Another potential problem with qualitative designs is that the researcher must present the literature theories as a basis for the data analysis, and make the entire procedure very logical and clear to the reader (Creswell, 2004).

A key advantage of qualitative methods is the researcher excitement when a new paradigm based on solid trends in data is one of the results of the data analysis. A researcher never knows what data patterns will reveal; entire assumptions made by literature searches could be discovered as invalid, and it is wonderful to discover new patterns so that new practices can be developed in the field. For example, one of the authors of this lecture was part of a study to find out if an online faculty refresher course was effective. Faculty performance practices of a control group who were coached were compared to another faculty group who had coaching *plus* the online training workshop.

Faculty performance records of before and after the workshop were analyzed patterns for three months; the patterns based on key areas were identified as crucial being materials, facilitation, and practices; these were the parameters. The unit of measurement was a measurement tool used to evaluate faculty. Patterns found in online faculty classrooms within the areas of materials, facilitation, and best practices showed there were no differences in faculty performances in either group. Both groups improved for the first month but three months later were going back to the same initial problems in all three critical areas. The result of this study was a drastic online faculty training revision that was data driven and supported by positive outcomes. It was quite fun to be a part of this study and helped create a new framework of successful online faculty coaching and training with measurable outcomes.

Major Qualitative Designs

There are many types of qualitative designs. Simon and Frances (1998, 2004) developed a useful organization of research designs into past, present, and future perspectives. Analyze the problem and determine if it based past, present, or future data. Major general designs are outlined in the next section.

Past Perspectives

If the researcher is primarily interested in solving a problem that requires looking into past events or factors that have contributed to the problem being researched, then consider past perspectives (Simon & Francis, 2004). General past perspectives are explained below; please refer to the reference list for books on each area for detailed instructions on implementing each type of design.

Driven by the question: What and why?

Historical Design
Type: Qualitative

Historical designs typically analyze documents in relation to a theory or concept, describing what occurred by interpreting facts and events of archival documents in a critical manner. This design is useful when interviewing or observing is not possible but the problem can be solved with historical documents (Simon & Francis, 2004).

Driven by the question: What are the trends or patterns? Grounded theory develops new theories from raw data (creates a theory where none existed before)

Content Analysis and Grounded Theory
Type: Qualitative but with quantitative counts, averages, and methods of describing data

Content analysis is used to analyze any written document for patterns. Data is coded and analyzed with statistics *or* patterns can be grounded into theory (in this case the content analysis is really grounded theory). Grounded theory is developed from the raw data with a general theory or theories guiding the initial pattern analysis (Glaser & Strauss, 1967). Grounded theory can be past or futures based depending on the nature of the design. For example, one student is studying leadership decisions based on theories of the best practices in national safety and security by analyzing historical decisions made by President Bush and Clinton. The parameters are grounded in theory; and this design is a past perspective but *could* generate new theories for the future as a framework for leaders in national security and safety. In contrast, if previous data is analyzed for patterns without being grounded in theory, then the design is content analysis (Simon & Frances, 2004).

Present Perspectives

What if the problem must *deal with present information* solve the problem? According to Simon and Francis (2004), present research design examines a phenomenon, as it occurs to understand the nature of the problem.

Driven by the Question: How, why, and when certain phenomena are considered with very specific case situations, people, organizations, or industries.

Case Study
Type of design: Qualitative

Case study findings are valid only for the case being studied with *some* generalizations possible but the researcher should triangulate the methods, data, and incorporates the use of a pilot study to test the findings and allows modification of methodology before the final study is completed. Every effort to explain patterns in an unbiased manner to discover the reality behind the data being studied (Feagin, Orum & Sjoberg, 1991; Simon & Francis, 2004; Yin, 1991; 2004).

Driven by the question: What is the meaning of people's experiences, culture, environment, and perspectives with a problem?

Phenomenology
Type of Design: Qualitative

The researcher must have access to the sample or case *to interview and gain information about the person's innermost feelings*. Access to interview more than once to re-clarify and obtain detailed information in an interactive manner with the sample members. Observations can triangulate the data. A comparison with basic theories is applied to the answers to create a theoretical basis of understanding the context. Examples of the meanings are presented using quotes from the samples (Simon & Frances, 2004; Yin, 2004).

Futures Perspectives

If the research problem is concerned about the future, with the purpose of studying a problem to *change it*, then the research design could be future based (Creswell, 2004).

Caution: Applied and Action research are grey areas that deal with day-to-day problems and are not considered qualitative or quantitative at some universities for the doctorate dissertation so a good tip is to check before going down this road.

Answers the question: How has your experience been meaningful using personal communication?

Heuristics research
Type: Qualitative

Subjects using the heuristics design are studied with no speculation. Instead, open-ended questions using personal communication in relation to the universe, working to find meanings within the context of personal experiences. Patterns in responses are the outcome of heuristics research (Simon & Francis, 2004).

Answers the question: How or why is something occurring using multiple methods of inquiry including literature with many standpoints?

Holistic Research
Type: Qualitative

Researchers use holistic methods to undercover all data in a holistic manner using people, social views, and relationships. Holistic research is a non-traditional method and

triangulation of the patterns in the results is critical (Simon & Francis, 2004).

Answers the question: How can theories be developed for a new set of data or a new situation where none exists before based on expert opinion? What do the experts say can be applied to a new area that works well?

Delphi Research
Type: Qualitative

Delphi research is an excellent method when experts in a certain field are located and the problem is solved in a more effective manner based on subjective conclusions. The researcher inquires the experts with open-ended questions, gathers data, and then based on a consensus of the answers, re-interviews the same experts for more opinions. With the advent of emails, this method is becoming easier to achieve. Exploratory information and theories are developed using this method (Simon & Francis, 2004).

Answers the question: How do cultural meanings interpret meanings of experiences?

Ethnographic Research
Type: Qualitative

Most students who have studied the bible are familiar with the ethnographic design. Understanding the meaning of the bible relies on the context of the time the bible was written based on the *culture at the time*. Research studies that use this design examine the culture in perspective to the problem at the time it is studied. An understanding of the samples view at the time of existence is the goal of this method over a long-term period usually months or years (Creswell, 2004; Simon & Francis, 2004).

Answers the question: How can one generate a theory from the data itself?

Grounded Theory Research
Type: Qualitative

Initial theories on variables start exploring patterns in new data of a new population. Few theories are generated based on the patterns within the data; thus, the data is generating new theories. Patterns show how theory is developed, and multiple data sources triangulate the data. Pilot studies are a good way to test methods for analyzing data to develop grounded theory (Glaser & Strauss, 1967).

Quantitative Research Methods

In contrast to qualitative methods that discover themes and explore patterns, quantitative methods to *describes* a problem, or *predict* an outcome. Quantitative methods are not used to *explore* a problem. The problem has occurred and a quantitative method is used when the researcher wants know what or when something has occurred but does not understand why and can use a estimate (a sample) of the proportion of a population "discovering associations between variables" (Cooper & Schindler, 2004, p. 161). Certain assumptions are present if in quantitative designs for example, an assumption is that the data is black or white (no grey); a data item belongs to certain class or it does not.

In contrast to a qualitative design where the researcher would ask open-ended questions, a quantitative design makes educated guesses derived from induction or deduction of the problem called hypothesis (Sproull, 1995, 2004). The study proves the null hypotheses (Creswell, 2004; Sproull, 1995, 2004). The researcher is trying to prove the null is false.

Major Quantitative Designs: Present Perspectives

What if the problem *must have current information* to solve the problem? According to Simon and Francis (2004), present research design examines a phenomenon, as it occurs to understand the nature of the problem. Most quantitative designs use present perspectives.

Driven by the question: What IS occurring (not past) in detail to generate new improvements?

Descriptive Research
Type: Quantitative

When a detailed and accurate picture of phenomenon is required to generate hypothesis to pinpoint needed areas of improvement, descriptive research is useful. Variables are not manipulated and there is no cause and effect. Content is analyzed to determine what others may be doing or in an effort to develop a better framework (Creswell, 2004; Simon & Francis, 2004).

Driven by the question: What correlation if any exists between X and Y?

Correlation Design
Type: Quantitative

From data that is after the fact that has occurred naturally (no interference from the researcher), a hypothesis of possible future correlation is drawn. Correlation studies are not cause and effect, they simply prove a correlation or not Sproull, 2004).

Driven by the question: What is the cause or relationship of a variable or variables comparing one sample group to another?

Causal-Comparative
Type: Quantitative

Most casual-comparative research is used on groups when the research is studying a comparison of one group with another, for example, comparing the economic level of third-world countries with developed countries using pre-determined variables of comparison to determine which one influences a higher level of economic performance (Simon & Frances, 2004).

The researcher is not determining *why* this occurred, but is focusing on what has occurred for the more successful group

in order to gain information on the relationship between the variables, often to make predictions or develop future frameworks (Creswell, 2004; Simon & Francis, 2004).

Pure Basic Experimental Design
Type: Quantitative

This type of research was first type of formal research design (Creswell, 2004) where the researcher has full control of all variables with a control, manipulation, and uses randomization on different populations (Simon & Francis, 2004). It is very difficult to obtain true control so this research requires extensive reading of this type of design and gain knowledge on how to manipulate variables.

Quasi-Experimental Design
Type: Quantitative

This type of research was adapted to provide experiments where at least one of the variables cannot be controlled as in the case of a pure basic experimental design (Burns & Grove, 1993; Sproull, 2004). Statistical methods account for the inability to control certain variables (Sproull, 2004).

Qualitative vs. Quantitative Designs:
Key Terminology Differences

Some research plans are vague and it is hard to tell design methodology at a glance. Online doctoral students find this chart helpful to make sure the design has consistent design terms stated in a clear manner without mixing quantitative and qualitative common terms.

Table 1
Qualitative and Quantitative Design Terminology

Qualitative	Quantitative
Explore	Describe
Case Study	Sample
Grounded theory	Relationship between variable and variable
Themes	Correlation between one variable and one variable
Patterns	Compare
Phenomenological	Evaluate
Meanings	Identify
Ethnographic	Descriptive
Behaviors	Investigate degrees of variations
Understanding	Experimental
Historical	Quasi-Experimental
Explained	
Observed phenomenon	
Generating a theory	
Perceptions	

Which Methodology is Appropriate?

The answer of course, is that it depends. It depends on the problem the researcher is trying to solve. It depends on the data the researcher has access and the resources at dispersal. Some helpful steps designed to assist online doctorate student to select a significant problem topic and design are included below.

- *Determine the academic passion.* Students will be studying the research problem a long time, so make sure it is something students can maintain interest over time. If students select a research problem in an area that they something that you do not care deeply about, students will be bored by the time the dissertation is finished.
- *Define the Problem.* Write it out in bottom line ONE line format: *The problem is....*
- *Reflect on the purpose.* Does the problem need exploring or explaining?
- *What data does the researcher need to solve the problem*? Does the researcher have access to this type of data? Can permission \be obtained to gather data?
- *Analyze the design types; which design best matches the problem?* Read more about this design and compare it against a second choice – which designs solves the problem in a significant, doable, timely manner? Do not choose methods that will take decades to complete; narrow it down to a doable, yet important problem that can be accomplished in the time allotted to finish a dissertation.
- Choice of a research methodology design depends on the problem, the questions, the researcher's own unique style (Simon & Frances, 1998), the data available, and the access rights. There is no concrete model to follow on what design to choose when, the researcher must use a general guideline to make a choice and defend that choice as being valid to answer the question(s) conclusively. The chart below should help narrow down what is available to match the research problem and questions.

Table 2
Problems and Type of Research Design Choices

Problem Researching	Research Design	Specific issues	Qualitative or Quantitative Design
Explores WHAT is happening?	Qualitative	Exploring common experiences of individual to develop a theory	Qualitative: Grounded theory.
	Qualitative	Exploring the shared culture of a group of people	Ethnographic Research.
	Qualitative	Exploring individual stories to describe the lives of people.	Narrative Research
What is happening is clear but there is no explanation.	Quantitative	Explaining whether an intervention influences an outcome for one group as opposed to another group.	Intervention Research called Experimental Research.
Is based on finding out why something is occurring?	Quantitative	Describing trends for a population of people.	Non-Intervention Research: Survey Research.
Predicting it.	Quantitative	Associating or relating variables in a predictable pattern for one group of individuals.	Non-Intervention Research: Correlation Research.
Is exploring both WHAT and WHY?	Mixed method using Qualitative and Quantitative Methods.	To best understand a research problem.	Mixed Method.
	Used to study education problems in a setting.	To change practices	Action Research. (careful with this for UOPhx)

Conclusion

This article is an *introduction* to the literature review process and the two main different types of research design, demonstrating how the choice of a horse is critical to driving the carriage, the problem is the horse that always drives the choice of research design. The harness – a literature review – must bear the weight of past studies so that the need to answer the problem is clear. This article is not a comprehensive *how to* explanation of each type within that design. When a solid literature review clearly demonstrates the distinct need for the study, the problem statement will successfully pull the horse to the end goal of a completed and approved dissertation that is ready to be published.

References

Introduction to educational research (2003). Custom electronic text for the University of Phoenix. Boston, MA: Pearson Custom Publishing.

Abusabha, R., & Woelfel, M. L. (2003). User-centered design goal setting. The interplay between user research and innovation. *Journal of the American Dietetic Association, May* (103). Retrieved October 10, 2003, from Proquest database.

Cone, J. D., & Foster, S. L. (1993). *Dissertations and theses from start to finish: Psychology and related fields*. Washington, D.C.: American Psychological Association.

Cooper, D. R., & Schindler, P. S. (2003). *Business research methods* (8th ed.). New York: McGraw-Hill.

Creswell, J. W. (2002). Educational research: Planning, conducting, and evaluating quantitative and qualitative research. Columbus, Ohio: Merrill Prentice Hall.

Creswell, J. W. (2004). Educational research: Planning, conducting, and evaluating quantitative and qualitative research (2nd ed.). Columbus, Ohio: Merrill Prentice Hall.

Curran-Downey, M. (2000). O doctorate! Many strive, few attain it. San Diego Union Tribune**.** Available at: http://www.dissertationdoctor.com/endorse/utribune.html

Feagin, J. R., Orum, A. M., & Sjoberg, G. (1991). *A case for the case study*. Chapel Hill: The University of North Carolina.

Gall, M. D., Borg, W. R., and Gall, J. P., (1996). *Educational research: An introduction* (6th ed.). White Plains, NY: Longman Publishers.

Glasser, B. G, & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. New York: Adline de Gruyter.

Hart, C. (1998). *Doing a literature review*. Thousand Oaks, CA: Sage Publications.

Howe, M. J.A. (1999). *Genius explained.* Cambridge, UK: Cambridge University Press.

Jensen, S. (2005). Dissertation survival skills: Disarming the inner critic. Available at: http://www.dissertationdoctor.com/articles/critic.html

Language Center (2004). Writing up research: Using the literature. Asian Institute of Technology. Available: http://www.clet.ait.ac.th/EL21LIT.htm

Lawlor, J. & Gorham, G. (2004). Dublin Institute of Technology, Faculty of Tourism & Food: The Reference Handbook. Available: http://remus.dit.ie/DIT/tourismfood/ hospitality/Reference.pdf

Locke, L. F., Silverman, S. J., and Spirduso, W. W., (1998). *Reading and understanding research.* Thousand Oaks, CA: Sage Publications.

Maxwell, J. (1999). *The 21 indispensable qualities of a leader.* Nashville, TN: Thomas Nelson.

Morris, T. (1994). *True Success: A new philosophy of excellence.* New York: G. P. Putnam's Sons

Neuman, W. L. (1997). Social research methods: qualitative and quantitative approaches (3rd Ed). Allyn and Bacon, Boston.

Simon, M. K., & Francis, B. J. (1998). The dissertation cookbook: From soup to nuts a practical guide to start and complete your dissertation (2nd. Ed.). Dubuque, Iowa: Kendall/Hunt.

Simon, M. K., & Francis, B. J. (2004). The dissertation cookbook: From soup to nuts a practical guide to start and complete your dissertation (3rd. Ed.). Dubuque, Iowa: Kendall/Hunt.

Sproull, N. D. (1995). Handbook of research methods: A guide for practitioners and students in the social sciences (2nd. Ed.). New Jersey: The Scarecrow Press.

Sproull, N. D. (2004). Handbook of research methods: A guide for practitioners and students in the social sciences (3rd Ed.). New Jersey: The Scarecrow Press.

Yin, R.K. (1991). *Applications of Case Study Research: Applied Social Research* Methods Series (2nd. Ed.). Thousand Oaks: Sage Publications.

Yin, R.K. (2004). *Applications of Case Study Research: Applied Social Research* Methods Series 4th. Ed.). Thousand Oaks: Sage Publications.

Note: Content was included from a previously published article:

Muirhead, B. (2004). Literature review advice. *International Journal of Instructional Technology and Distance Learning*, 1 (2), 59-63. Available: http://www.itdl.org

Encouraging Creativity in Student Online Work

Brent Muirhead

Muirhead, B. (2004). "Encouraging creativity in student online work." *International Journal of Instructional Technology and Distance Learning*, 1 (12), 51-56. Available: http://www.itdl.org

Editor's Note: *As Guest Editor for the December International Journal, Brent continues to write his regular articles for scholars and students. There is no greater joy than to see a student take, adopt and apply what he or she learns in an innovative or creative way. Too much education is filling a template set by the instructor. Brent gives us some clues to help the online student break "out-of-the-box!"*

Introduction

Educational and business literature affirms the importance and value of creativity. Unfortunately, this knowledge is not always presented in a manner that is useful to online instructors who want to integrate more reflective lessons into their courses. The discussion will provide vital background information on creativity and offer relevant instructional suggestions to promote creativity in online classes.

What is Creativity?

The term creativity can be an illusive term to define because writers do not want to undermine or diminish the positive aspects that are often associated with the word. For instance, if someone relates that they consider you a creative person, it is considered a compliment and an affirmation of your abilities. A survey of definitions of creativity highlights the intriguing qualities of this term. Harris (1998) provides one of the best descriptions of creativity:

An Ability: A simple definition is that creativity is the ability to imagine or invent something new.

An Attitude: Creativity is also an attitude: the attitude to accept change and newness, a willingness to play with ideas and possibilities, a flexibility of outlook, the habit of enjoying the good, while looking for ways to improve it.

A Process: Creative people work hard and continually to improve ideas and solutions, by making gradual alternations and refinements to their works. (para 2, 4 & 5).

The description highlights the multidimensional nature of creativity while stressing that individuals must realize that it involves hard work and a flexible mental attitude. There seems to be some misconception about the need for hard work but it is affirmed by today's writers. Howe (1999) has conducted a biographical analysis of people who were considered in the category of being a genius (i.e. Einstein) due to their exceptional work. A detailed historical examination of their lives has shown that most were characterized by having a tremendous work ethic. This enabled them to have the diligence and patience to use problem solving techniques to reach brilliant solutions with their ideas.

Online instructors want their students to demonstrate fresh ideas and perspectives in their written assignments, essay exams, online discussions, Power Point Presentations and learning team projects. Students who participate in stimulating instructional activities will be encouraged to cultivate their imaginations and it should be one of the trademarks of a good education. Instructors must work with individuals who come from cultures that sometimes undermine critical thinking and self-directed learning. White (2003) argues that Americans have settled for a superficial creativity built upon passively observing others display their imaginations in the entertainment industry. Business leaders have managed creativity into neat film or television show formulas that are financially profitable but fail to intellectually challenge people to be truly reflective and autonomous thinkers. "The culture informed by the strategies of the Middle Mind promises intelligence, seriousness, care, but what it provides in reality is something other. What the Middle Mind does is flatten distinctions. It turns culture into mush" (White, 2003, p. 10).

Teaching Philosophy and Strategies

Instructors can promote creativity by developing course materials and activities that reinforce reflective skills. Recently, educators have stressed the importance of metacognition which Livingston (1997) defined as "thinking about thinking" (para 2). The word relates to a form of self regulation or executive control of the cognitive processes. Flavell (1979) has described metacognition in terms of three basic categories: individual knowledge about learning, knowledge of variables to complete a task and knowledge strategies. Metacognition skills play a vital role in a student's ability to succeed in higher education and being able to resolve daily problems or issues in their future jobs. Students must make a diversity of learning decisions based on their understanding of their skills and study habits. For instance, an individual might select a library over a university dorm room as being the best place to be effectively study and prepare for an exam (Livingston, 1997).

Metacognition is closely connected to critical thinking because both involve self-regulating activities. Lipman (1995) states "….critical thinking is skillful, responsible thinking that facilitates good judgment because it (1) relies upon criteria, (2) is self-correcting, and (3) is sensitive to

context" (p. 146). The definition reveals the dynamic nature of critical thinking and perhaps why it is not always being taught in our traditional and online universities. The author has completed six graduate degree programs and sadly some of my course work involved tedious rote memory work for essay exams. There is a place for knowing basic knowledge in every academic discipline. Educators must make a deliberate effort to have learning objectives and instructional activities that address foundational knowledge while providing adequate opportunities for reflective thinking.

Teachers who want to enhance the teaching and learning process realize that fostering critical thinking skills will require extra work to effectively communicate complex ideas to their students. Bullen's research (1998) reveals that a student's ability to demonstrate critical thinking skills during online discussions is influenced by four major factors: cognitive maturity, teaching style of instructor, student's prior learning experiences and degree of understanding the critical thinking process. The factors reveal that students will vary in their understanding of critical thinking skills and cognitive abilities. Therefore, teachers will need to develop a set of instructional strategies that will help them to meet a diversity of student needs. It is important for teachers to provide a rich intellectual environment that helps to eliminate myths about creativity. Teresa Amabile who heads the Entrepreneurial Management Unit at Harvard University conducted a research project on creativity. Amabile's team collected information from 238 individuals involving almost 12,000 daily journals comments who were working on projects from seven different companies. Breen (2004, pp.75-78) relates how Amabile's research study has identified six myths about creativity:

1. Creativity comes from creative types: Creativity depends upon a number of things; experience, including knowledge and technical skills; talent; an ability to think in ways; and the capacity to push through uncreative dry spells.
2. Money is a creativity motivator: People are most creative when they care about their work and they're stretching their skills.
3. Time pressure fuels creativity: Time pressure stifles creativity because people can't deeply engage with the problem.
4. Fear forces breakthroughs: We found that creativity is positively associated with joy and love and negatively with anger, fear, and anxiety.
5. Competition beats collaboration: In our surveys we found that creativity takes a hit when people in a group compete instead of collaborate.
6. A streamlined organization is a creative organization: Creativity suffers greatly during downsizing. Every single one of the stimulants to creativity in the work environment went down significantly.

The research study highlights the complexity associated with cultivating creativity into work and educational settings. A major educational problem involves how to effectively promote and sustain student creativity in the online environment. As a mentor of faculty candidates at the University of Phoenix, some instructors will verbalize their belief in a student-centered teaching philosophy. Yet, their actual online presence is one of dominating the student dialog with an excessive number of daily comments. The negative facilitator practice can diminish the quality of the discussions as students become reluctant to express their ideas which seem less important than the instructor's.

Encouraging student creativity will require providing specific instruction on reflective thinking by helping students to understand the nature of critical thinking. The teaching of critical thinking should be considered as a normal part of the curriculum and should be integrated in some manner into every subject area. Also, teachers must offer clear and detailed instructions in their assignments while creating an open ended dimension for the exploration of ideas. The instructions are essential because even graduate level students need guidance and student must feel secure in the evaluation and grading process to become risk takers in their work. The author recalls approaching a doctoral teacher about taking a class in the independent study format without having to attend the traditional face-to-face classes. The teacher agreed to the proposal and the course syllabus was adjusted to the following requirements: read 8 books and write 11 papers! The author completed the work and asked the teacher why so much work was assigned and the teacher responded by noting "it was to make up for lost seat time." The incident is a good reminder that teachers and students must work together to foster positive learning experiences.

Teachers should communicate a picture of a creative thinker through their teaching style, sharing stories of innovative individuals and demonstrating novel ideas through the use of charts, lectures and Power Point Presentations. Brookfield's (1987, pp. 115-116) characteristics of a critical thinker are informative about understanding the illusive process of understanding how people become creative:

- Creative thinkers reject standardized formats for problem solving.
- They have interests in a wide range of related and divergent fields.
- They can take multiple perspectives on a problem.
- They view the world as relative and contextual rather that universal and absolute.
- They frequently use trial-and-error methods in their experimentation with alternative approaches.
- They have a future orientation; change is embraced optimistically as a valuable possibility.
- They have self-confidence and trust in their own judgment.

Distance educators could learn valuable lessons about encouraging creativity from today's business organizations. Gore-Tex fabrics is a superb example of an innovative major corporation which has over 63,000 employees and $1.5 billion in annual revenues. W. L. Gore has developed a thriving organizational culture which emphasizes small teams, cutting edge products and leaders who regularly devote time to speculative thinking. The company has experienced continuous product breakthroughs which reflect a business built on long term goals. Gore's leadership philosophy and work rituals are designed to affirm creativity.

Deutschman (2004) observes that the teams will celebrate both project successes and failures. Why do they celebrate a failure? It is an intentional way to affirm that risk takers are always honored in their endeavors. Perhaps, a missing ingredient in today's online degree programs is the absence of adequate number of student risk taking opportunities. Teachers and students must be given enough freedom to pursue imaginative and valuable work that sometimes transcends the normal curriculum.

Teachers will need to develop a class structure and online teaching style that encourages creativity, reflective thinking, and self-directed learning. It is important that teachers enable students to have the freedom to ask questions and take intellectual risks in their written assignments and discussion groups. Teachers can provide valuable guidance by keeping dialogues focused, relevant and probing deeper into issues. This will require moderating discussions and creating a list of key ideas, references and student contributions. Distance educators can pose a diversity of questions to foster reflective comments. Collision, Elbaum, Havvind & Tinker (2000) have created five types of questions to encourage richer student responses that are called full-spectrum questions:

- Questions that probe the "so what!" response- relevance, interest level, urgency and context
- Questions that clarify meaning or conceptual vocabulary- ambiguity or vagueness and common concepts
- Questions that explore assumptions, sources and rationale- qualities assumed and study evidence
- Questions that seek to identify causes and effects or outcomes-primary or secondary and causes, internal or external factors
- Questions that consider appropriate action- weigh different courses of action (p. 143).

Teachers should view the full-spectrum questions as a tool for enhancing dialog. The choice of questions can be used to guide the discussion and help energize online interaction. It is wise not to overuse a particular question approach because students will begin to lose interest if the process becomes too predictable or even annoying. For instance, instructors who frequently respond to a student's comments with a question are guilty of over using a learning strategy. Also, it can annoy students who want more in-depth interaction over their ideas. Instructors can spark a lively dialog by using quotes, pictures, cartoons, simulations or graphics at different times during the course. A thought provoking quote can stimulate discussion and breathe new life into an apparently stale topic.

Teachers and students are confused about what constitutes genuine reflective thinking and that complicates efforts to integrate it into the curriculum. Woolfolk's (1990) chart helps to clarify what are some of the major elements in the critical thinking process:

Defining and clarifying the Problem
Identify central issues or problems.
Compare similarities and differences.
Determine which information is relevant.
Formulate appropriate questions.

Judging Information Related to the Problem
Distinguish among fact, opinion, and reasoned judgment.
Check consistency.
Identify unstated assumptions.
Recognize stereotypes and clichés.
Recognize bias, emotional factors, propaganda, and semantic slanting.
Recognize different value systems and ideologies

Solving Problems/Drawing Conclusions
Recognize the adequacy of data.
Predict probable consequences (p. 278).

Figure 1. Woolfolk's chart of Major Elements in the Critical Thinking Process

The chart can seem a bit overwhelming to educators who want to include higher order thinking in their instructional plans. It is important to recall that the essence of critical thinking is making good judgments which includes having criteria, self-correcting procedures, and being aware of context (Brookfield, 1987). The chart offers an excellent resource to create lesson plans and discussion questions that support higher order skills and creativity.

Conclusion

The discussion has briefly explored helping students to be creative in their online class work. There is a degree of mystery associated with the subject of creativity that challenges educators to continue studying how individuals translate their imaginations and ideas into innovative products. It is a vital educational issue that holds the promise of enriching student learning experiences as students become more effective at utilizing their cognitive skills and knowledge.

References

Breen, B. (2004, December) The 6 myths of creativity. *Fast Company*, 75-78.

Brookfield, S. D. (1987). Developing Critical thinkers: Challenging adults to explore alternative ways of thinking and acting. San Francisco: Jossey-Bass.

Bullen, M. (1998). Participation and critical thinking in online university distance education. *Journal of Distance Education*. 13 (2).Available: http://cade.icaap.org/vol13.2/bullen.html

Collison, G. Elbaum, B., Haavind, S., & Tinker, R. (2000). *Facilitating online learning: Effective strategies for moderators.* Madison, WI: Atwood Publishing.

Deutschman, A. (2004, December). The fabric of creativity. *Fast Company*, 54-62.

Flavell, J. H. (1979). Metacognition and cognitive monitoring: A new area of cognitive-developmental inquiry. *American Psychologist*, 34, 906-911.

Harris, R. (1998). Introduction to creative thinking. Available: http://www.virtualsalt.com/crebook1.htm

Howe, M. J. A. (1999). *Genius explained.* Cambridge, England: Cambridge University Press.

Lipman, M. (1995). Critical thinking - what can it be? In A. L. Ornstein & L. S. Behar (Eds.) *Contemporary Issues in Curriculum*, Boston, MA: Allyn & Bacon, 145-152.

Livingston, J. (1997). Metacognition: An overview. Available: http://www.gse.buffalo. edu/fas/ shuell/cep564/Metacog.htm

Thoreau, H. D. (n.d.). Quote. Available: http://en.thinkexist.com/

White, C. (2003). The middle mind: Why Americans don't think for themselves. San Francisco, CA: HarperCollins.

Woolfolk A. E. (1990). *Educational psychology* (4th ed.). Englewood Cliffs, NJ: Prentice Hall.

Encouraging Interaction in Online Classes

Brent Muirhead

Muirhead, B. (2004). "Encouraging interaction in online classes." *International Journal of Instructional Technology and Distance Learning*, 1 (6), 45-50. 2004. Available: http://www.itdl.org

Editor-on-Editor's Note: *Dr. Brent Muirhead is Senior Editor, Online Learning, for this Journal. Brent makes substantial contributions behind the scenes in addition to his personal commitment to research, publication and teaching. As Guest Editor for this issue for this issue, he brings additional authors and perspectives.*

Interaction is a powerful facilitator for learning, and this is especially true for online learning. A wide variety of teaching models are available, ranging from Bruce Joyce's Models of Teaching (Allyn & Bacon) for classroom learning, to Guy Bensusan's peer learning and Curtis Bonk's application of interactive multimedia.

Recognition of the ability of adult learners to assume responsibility for their own learning puts a new spin on the role of the teacher as facilitator of learning. Teacher colleges are recognizing this paradigm shift and making changes for the next generation of classroom teachers. Colleges and universities equipped for online teaching and learning are using new technologies to support their regular programs of instruction.

The majority of professors in higher education have little or no formal training as teachers and many continue to emulate the teaching models of previous generations. The good news is that increasing numbers of instructors attend workshops to learn about and use these new technology tools. In the process, they are exposed to opportunities for teaching and learning that did not exist a generation ago.

Introduction

Promoting and maintaining interactivity within online classes continues to be a vital concern among distance educators. The current discussion will explore instructional strategies to foster online interaction.

Instructor Challenges

Research literature continues to affirm the central role that online instructors play in creating a dynamic and academically effective learning environment. Palloff and Pratt (2001) state "the key to success in our online classes rests not with the content that is being presented but with the method by which the course is being delivered" (p. 152).

A major challenge for today's online instructors involves creating a consistent level of interaction that fosters genuine learning and cultivates a community atmosphere. This will require developing strategies that provide guidance and instruction for individuals and student groups. For instance, the instructor must decide how often to provide specific feedback on student work and dialog comments. Instructors can sometimes struggle in establishing an effective online presence because they are experimenting with their intervention strategies.

Online instructors strive to provide intellectually stimulating student dialogs and quality learning experiences which should involve productive individual and learning team activities. Instructors need to foster a secure online setting that affirms diversity of thought and critical inquiry into the subject matter. Student discussions should be monitored to insure that students avoid being excessively polite which will undermine genuine sharing. Teachers can model appropriate sharing of messages and establish an online tone that encourages genuine questioning and reflection. Veteran online instructors have learned how to effectively create an online tone that matches the needs of their students. The wise instructor will offer emotional support at times and there will be other moments when students will need an intellectual challenge. Garrison and Anderson (2003) recommend establishing the following online presence:
a feeling of trust and being welcomed;

- a sense of belonging to a critical community;
- a sense of control;
- a sense of accomplishment;
- a willingness to engage in discourse;
- a conversational tone; and
- a questioning attitude (p. 81).

Research studies have identified three basic student characteristics that are often found in successful online learners: internal locus of control, self-motivation and independence. Students who view their academic accomplishments due to their own work are more likely to be successful in online classes (Vrasidas & Glass, 2002). In contrast, even graduate students can struggle with a lack of confidence in their learning abilities. A vital factor to successful online learning is the student's perspective on the teacher and the learning environment. Shearer (2003) observes "student self-perception has as great an impact on observable interactivity levels as the instructor's teaching style or the instructional design" (p. 9). The psychological readiness of students can be diminished by a diversity of factors and life events:

- lack of prerequisite subject matter knowledge
- inadequate instructional feedback on assignments from teachers
- absence of clear goals for pursuing their degree program
- ineffective study habits
- stress of multiple roles.

Distance education programs vary in the quality of their classes and some offer poor learning experiences characterized by poor course design, inappropriate content or sequencing of learning activities and inconsistent teacher feedback (Janicki and Liegle, 2001). Examining research studies on student interaction with course content is often complicated by a multitude of variables. Thurmond (2003) highlights five factors that can influence student perspectives on their ability to learn course curriculum:

- continuous contact with the content- enables students to gain mastery
- clarity of course design – the structuring of the materials and the manner in which it is sequenced will help make it both accessible and easy to understand
- time – adequate time is needed for students to engage with the materials and discourse and to reflect on their learning
- participation in online discussions – this enables students to learn by constructing meaning and knowledge through dialogue and from other perspectives
- mode of delivering course content – appropriate sequencing of content and learning activities will enhance interactivity and make learning more effective and meaningful.

Strategies to Enhance Interactivity

Distance education represents a unique context for the teaching and learning process. Traditional educators do not always understand the essential instructional changes that both teachers and students must undertake to make it a successful venture. Spitzer (1998) notes that "those involved in distance education grossly underestimate the difficulty involved in changing deeply entrenched teaching and learning habits, and consequently we grossly underestimate the difficulty of changing from a traditional classroom environment to a distance learning context" (p. 53). The author shall share instructional strategies and insights which can promote interaction and authentic educational experiences.

Promote Critical Thinking

Today's distance education classes rely heavily upon text-based communication.

The emphasis is upon self-directed learning and represents a definite commitment by educators to affirm the autonomy and independence of adult students. Students use written comments to share conceptual knowledge with their classmates and teachers. The reading and writing process does promote cognitive and metacognitive skills due to the opportunity to reflect before responding to comments (Hannafin, Hill and Land, 1997). Online dialog over written messages can offer more in-depth intellectual inquiry than face-to-face conversations that usually encourage immediate responses (Blanchette, 2001). Instructors must strive to develop questions that are interesting and reflect a diversity of ideas to stimulate online dialog. Bender (2003) notes "…your aim should be to make the class an incredible experience, one that the student would not want to miss" (p. 69).

Online educators are faced with various barriers to quality dialogs such as having a discussion that is not focused or ones which are intellectually shallow. Instructors must use conversational techniques to sharpen dialog focus by providing direction, offering commentary that sorts ideas according to their relevance and highlighting primary student contributions. The dialogue can be enriched by instructors who offer a diverse range of questions that cause individuals to examine their assumptions, beliefs, ideas and rationale. Instructors should post comments that indicate that they honor a multiple of perspectives (Collision et al, 2000).

Relevant and Engaging Lectures

Traditional instructors are sometimes placed into difficult circumstances when they are required to teach an online class with little or no formal training. Often, they must post their lecture notes for their students to read while striving to facilitate a discussion based on the lecture notes. Also, it places pressure on the teacher to produce an excellent lecture because students will have plenty of time to examine the lecture and discuss its contents. Lectures can be used to personalize the learning environment when instructors develop a conversational style that reflects their personality. Students can acquire a stronger emotional connection to their instructor when they offer personal illustrations and professional experiences. Additionally, it is wise to include diverse discussion questions with lectures that explore vital content issues and enable students to refer to their work and life experiences. Shearer, (2003) stresses "without the proper use of sequence, pace, and feedback, the learner perceives little control over the learning environment, and without other means of timely interaction with the instructor (e.g. by phone or fax) the psychological distance may feel immense" (p.19).

The University of Phoenix (UOP) devotes attention to the lecture preparation to help faculty candidates during their training and mentoring process. UOP operates from a Practitioner-Faculty Model that encourages faculty members to share their expertise from their education and work experiences. Instructors learn to translate their knowledge and wisdom into a lecture that effectively communicates the latest research and theories with their professional experiences. It takes time to create quality lectures which reflect creativity and capture the imagination and attention of students. The lecture should be written in manner that is easy to read but instructors should avoid being simplistic in knowledge content.

Biographical Posts

Research studies support the practice of having instructors and their students share biographical posts during the first few days of class. An informative biography will highlight

both professional and personal data that offers insights into the individual's life. It is simple procedure that can humanize the online class by helping students learn more about their teacher and colleagues. Students will use the biographical posts as a reference point to communicate during the course.

Positive Affirmation of Student Work

Instructors can promote greater online participation by affirming their students' abilities and knowledge. The teacher can make positive comments about an individuals' expertise in a public forum such as a newsgroup and through private email messages. The key is to be sincere and share positive comments with every student in the class. Adult learners appreciate being recognized for their accomplishments and online classes offer numerous opportunities for instructors to affirm quality work.

Integrate Stories into the Class Discussions

Online students want classes that stress the human side of learning. The online environment can be lonely at times and students want to get to know their teachers and classmates. The author has found that students really enjoy stories from the teacher's life because it makes the class more personal and assists them with their academic work. In a doctoral research class, it would be a good opportunity for the instructor to share stories that provides insights on how he or she arrived at their dissertation topic. The wise instructor will use short stories to generate lively discussion within the class on a variety of social issues.

Provide Student's with Flexibility

Instructors must be careful not to provide excessive structure to their classes that eliminates the potential for students making critical decisions about their assignments. The term flexibility refers to making the learning more relevant to the student's needs or circumstances. The instructional emphasis is to make the learning experiences more individualized. Collis (1998) relates, "these relate to time flexibility, content flexibility, entry and completion flexibility, instructional-approach flexibility, learning-resource flexibility, technology-use flexibility, interactivity and communication flexibility, course-logistics flexibility, as well as location flexibility (p. 376)."

Further Research Needed

Current interactivity research studies in online classes recognize that communication in cyberspace is a complex entity. Distance educators have tried to create educational models to accurately describe online interaction but they appear to be inadequate because the communication and learning patterns are far more dynamic and transcend neat categories (Salmon, 2000). Those who advocate constructivist theory and principles must admit that much more research needs to done to affirm the validity of these theories in an actual class. Farahani's (2003) study highlights some of the apparent flaws in constructivist theory in regards to student learning when applied to today's distance education settings. "…instructors' comments dismissed the notion in constructivist theory that all learners would benefit from interaction for more in-depth learning and consequently higher-order critical thinking (p. 119)."

Interactivity has been a major focus for researchers but much more needs to be done. A vital research area that requires greater attention involves studying online learning communities (i.e. development, collaboration and interaction). The issue of learner support is connected to related topics such as student attrition. For instance, what are the most effective types of learner support? What kinds of successful strategies used with traditional learners can be applied to online students? Questions remain about the types of interaction that provide the best educational experiences for students. What are the most effective ways to facilitate student collaboration? What teacher practices encourage positive communication within the class? Meyer (2002) wonders whether there is optimal amount of interaction within online classes and asks "is the effect of interaction idiosyncratic to the person, or is there some type of interaction that engenders more learning from a student?" (p. 35).

A review of the literature identifies a major oversight in the educational studies. There is a strong focus on the individual learner differences but researchers have neglected to study individual differences in teachers' facilitator skills that can influence the quality of interactivity. The transition from being a traditional teacher to an online facilitator is challenging one because instructors often need professional staff development to properly prepare them. Educators can create research projects that investigate what are the appropriate and most effective pedagogical and technological skills to enhance interaction and promote academic achievement. Additionally, there is a need to study online interaction from a communication theory perspective by investigating a diversity of variables such as length and number of messages, type of information shared and the amount of time between responses. The studies would provide deeper descriptions and insights into the nature of interactivity.

Garrison and Anderson (2003) have developed a promising new distance education model known as the community of inquiry which involves three main three elements: social presence, cognitive presence and teacher presence. The model reflects a greater emphasis on social factors and less attention to psychological which has characterized the current generation of research studies. Future researchers should seriously consider the need to focus greater attention to studying learning teams and the learning organization which have been neglected. Gibson (2003) observes "we have the tools and we have the demand. What we don't have is research to inform our practice" (p. 157).

Conclusion

Today's professional development programs for online teachers would benefit from interactivity research studies and tailor their curriculum to better prepare their instructors.
Teachers need the expertise to develop a class structure that stimulates social interaction and affirms rigorous academic standards while fostering independent learning skills.

References

Bender, T. (2003). Discussion based online teaching to enhance student learning: Theory, practice and assessment. Sterling, VA: Stylus.

Collis, B. (1998). New didactics for university instruction: Why and how? Computers and Education, 31 (4), 373-393.

Collison, G., Elbaum, Haavind, S., and Tinker, R. (2000). Facilitating online learning. Effective strategies for moderators. Madison, WI: Atwood Publishing.

Farahani, G. O. (2003). Existence and importance of online interaction. Doctoral dissertation. Virginia Polythechnic Institute and State University.

Garrison, D. R. and Anderson, T. (2003). E-learning in the 21st century: A framework for research and practice. London, UK: RoutledgeFarmer.

Gibson, C. C. (2003). Learners and learning: The need for theory. In M. G. Moore and W. G. Anderson (Eds.). Handbook of distance education. Mahwah, NJ: Lawrence Erlbaum Associates.

Hannafin, M. J., Hill, J. R. and Land, S. M., (1997). Student-centered learning and interactive multimedia: Status, issues, and implications. Contemporary Education, 68 (2), 94-99.

Janicki, T. and Liegle, J. O. (2001). Development and evaluation of a framework for creating web-based learning modules: a pedagogical and systems approach. *Journal of Asynchronous Learning Networks*, 5(1). Available: http://www.aln.org/publications/jaln/v5n1/v5n1_janicki.asp

Meyer, K. A. (2002). Quality in distance education: Focus on on-line learning. San Francisco, CA: Jossey-Bass.

Mortera-Gutierrez, F. (2002). Instructor interactions in distance education environments. Journal of Interactive Learning Research, 13 (3), 191-209.

Palloff, R. M. and Pratt, K. (2001). Lessons from the cbyerspace classroom: The realities of online teaching. San Francisco: Jossey-Bass.

Shearer, R. L. (2003). Interaction in distance education. Special Report 2 (1). Madison, WI: Atwood Publishing.

Salmon, G. (2000). *E-moderating: the key to teaching and learning online*. London: Kogan Page Limited.

Spitzer, D. R., (1998). Rediscovering the social context of distance learning. Educational Technology, 38 (2), 52-56.

Swan, K. (2001). Virtual interaction: Design factors affecting student satisfaction and perceived learning in asynchronous online courses. Distance Education, 22, 306-331.

Thurmond, V. A. (2003). Examination of interaction variables as predictors of students' satisfaction and willingness to enroll in future Web-based courses. Doctoral dissertation. University of Kansas Medical Center, Kansas City, KS.

Vrasidas, C. and Glass, G. V. (2002). A conceptual framework for studying distance education. In C. Vrasidas and G. V. Glass (Eds.). Distance education and distributed learning. Greenwich, CT: Information Age.

Teaching Philosophy Courses to Online Graduate Students

Brent Muirhead

Muirhead, B. (2003)."Teaching philosophy courses to online graduate students". *USDLA Journal*, 17(2). Available: http://www.usdlajournal.org/APR03_Issue/article06.html

***Editor's Note**: Philosophy is a search for truth where students are involved in dialog, reasoning, and openness to new ideas. Goals and learning strategies emphasize process more than content. Philosophy is part of a lifelong journey to answer fundamental questions about our existence and behavior. In addition to critical thinking and logic, it explores issues that do not respond to scientific research and reason. It is not surprising that Dr. Muirhead suggests a need to modify instructional strategies and teaching methods for Philosophy courses. Journey with him as he guides students in their personal explorations and become "life long learners with a passion for knowledge and wisdom."*

Teaching online philosophy classes to graduate business students is very challenging experience. Often, business students have not had a philosophy class during their previous degree programs. At the University of Phoenix, all Doctor of Management students are required to take a philosophy of knowledge course. It is considered one of the toughest courses in the online degree program. Therefore, the author has found it necessary to develop teaching strategies that will help graduate students acquire the skills and knowledge to handle basic philosophical issues. The article should be considered as a modest attempt to develop teaching methods for assisting today's students.

Introducing Students to Philosophical Subjects

Distance educators struggle with how to approach teaching a complex subject such as philosophy in the virtual format. Philosophical subjects can be quite intimidating to even to graduate students who take classes in a face-to- face setting. Therefore, teachers need to provide relevant academic guidance while promoting independent learning skills. At the University of Phoenix, doctoral students devote their first two weeks to reading books and articles. The curriculum materials introduce students a historical overview of philosophy, major philosophers and primary schools of thought. The author recommends two books which might help students to become better acquainted with the field of philosophy: Solomon & Higgins (1996) offer a concise historical overview of philosophy and Horner & Westacott (2000) share valuable insights on how to approach more in-depth issues.

The author utilizes lectures to introduce students to basic philosophical terms and principles. Students are reminded that the term "philosophy" refers to a passion or love for wisdom. The contemporary notion of wisdom is sometimes used in a sarcastic sense of a "wise guy" or making a wise choice. Yet, the term wisdom is rarely used in reference to individuals either being wise or striving to obtain wisdom. Christenson (2001) shares a practical definition, "philosophy is disciplined critical reflection (about fundamental ideas) that springs from wonder" (p. 4).

Students are encouraged to reflect upon the question, why is wonder connected to the concept of wisdom? The question can be used to share lecture material on the role of wonder among ancient philosophers. For instance, Socrates, Plato and Aristotle used the term wonder to help describe their attempts to view life and the process of acquiring knowledge from a fresh perspective. The three philosophers examined a wide range of topics such as ethics, politics, justice, friendship and the soul. Philosophical problems exist because people are perplexed and concerned about issues that touch their daily lives. The term wonder transcends the definition of merely being puzzled by something. Christenson (2001) relates

> *"What is wonder? Wonder is a response we find ourselves making to the things that amaze us, awe us, bewilder us, puzzle us, and shock us into a new state of awareness and new patterns of thinking. Wonder usually occurs not the first time we experience something, but the first time we really see what we have looked at a thousand times but have never stopped to notice before" (p. 5-6).*

Individuals can experience wonder at the experiential level and when they reach a deeper understanding. The realization of wonder is a unique learning experience which develops as a result of having openness to new ideas and a willingness to explore alternative view points. Philosophy teachers can invite their students to develop mental attitudes that enable them to see something new even within life's ordinary routines. The process begins by individuals learning to ask reflective questions and fostering a creative imagination (Christenson, 2001).

Teachers can help their students become better prepared to discuss philosophical issues by creating an online class that promotes genuine personal reflection and free flowing academic debates. Woodhouse (1994) stresses the need for students to develop four psychological traits to enhance the quality of class discussions:

1. the courage to examine one's cherished beliefs critically;
2. a willingness to advance tentative hypotheses and to take the first step in reacting

3. to a philosophical claim, no matter how foolish that reaction might seem at the time;
4. a desire to place the search for truth above the satisfaction of apparently 'winning' the debate or the frustration of 'losing' it; and
5. an ability to separate one's personality from the context of a discussion (p. 45).

Cultivating Critical Thinking Skills

Online instructors must devote time to creating thought provoking weekly dialog questions. Discussion questions can be used as a tool to help students uncover their underlying assumptions which form the basis of their ideas and beliefs. This is a difficult step for many students because they may have never really studied the rationale behind their views. Philosophy is a unique academic discipline that intentionally seeks to uncover assumptions which influence an individual's beliefs and values. Students must learn to handle more of the "why" type questions. Often, these are questions which do not have any immediate answers or the current answers are only partial solutions to complex social issues (Christenson, 2001).

Student responses to difficult philosophical questions should avoid three temptations:

- **The quick, low-effort answer-** individuals must be willing to take the time to carefully think through their ideas.
- **The simple answer-** individuals need to move beyond half-truths to a deeper understanding of complex issues.
- **Polarized thinking-** individuals can be tempted into think there is an easy answer but their response fails to truly address concepts such as assumptions, similarities, differences and a host of other considerations that are needed to honestly work through difficult ideas (Christenson, 2001).

Philosophy courses contain subject matter which promotes learning a body of knowledge and engages students in critical thinking activities. Higher order thinking is a complex phenomenon which is often difficult to describe and define. It is useful to provide teachers with a working definition of thinking to guide their online instructional strategies. In one such example, Barell (1995) outlines the multidimensional nature of thinking:

Search for meaning- striving for a deeper understanding of the subject matter by studying relationships between concepts, principles and ideas. In philosophy, this will involve investigating problems across several academic disciplines.

- Thinking is purposeful thinking- the emphasis is on having a deliberate focus and direction in thinking which helps create a grid to screen events and ideas into a relevant pattern of ideas.
- Thinking involves confronting uncertainty- facing unexpected situations that involve difficult problems will create the need to develop new approaches and testing tentative solutions.
- Thinking involves experimentation- experimentation requires taking risks with no guarantees of immediate success but a willingness to try new ways of thinking about a problem.
- Thinking involves self-regulation-individuals who monitor their own thinking processes and are able to make adjustments in their cognitive strategies.

Barrell's (1995) reflections on the craft of thinking highlight the importance of effectively communicating mental thought to others. The communication of ideas online is heavily dependent upon writing notes, papers and e-mail messages in cyberspace.

Using Philosophical Examples

Students appreciate having philosophical illustrations to highlight important principles and ideas. The following illustration involves discussing existentialism and pragmaticism in the context of a college classroom. The illustration highlights how a teacher's educational philosophy can influence his/her perspective on curriculum goals and instructional methods.

At this point, it would be informative to explore a classroom with an existentialist teacher's perspective in today's world. It is time to think as an existentialist to appreciate their view of the teaching and learning process. The student is the center of their educational model because the student needs to learn to make choices and take personal responsibility for their learning. The instructor is constantly promoting learning experiences to broaden student perspectives on social issues. Critical thinking skills are promoted through personal essays that help students to reflect on who they are and make choices on what they want to become in the future. Students are given history lessons that emphasize cultural diversity and different lifestyles. International cultural studies are used as a way to increase their awareness of human suffering and the absence of hope. Also, students are challenged to select values that affirm being authentic individuals who are unique and responsible. The idea of competitive sports is foreign to the existentialist teacher. Instead, sporting activities are designed for personal enjoyment and to meet vital physical needs such as stress reduction. It is not the aim of sporting activities to be about who wins or loses the game. In fact, sporting events are not about becoming professional athletes or for building character. Rather, the goal is quite basic; it is to experience the joy of playing. Finally, the curriculum tends to focus on the arts and literature. The arts offer opportunities for students to pursue individual achievement and express personal views on their existence. Literature classes provide educational situations where students are confronted with examples of people making choices and value judgments (Audi, 1999).

The pragmatic teacher considers himself/herself a guide or arranger of learning experiences. Yet, the teacher is also a part of the learning group and is actively involved in the entire educational process. The teacher works with students to develop their projects by advising them. Student instructional projects are based on the interests or needs of the students rather than those of the teacher. John Dewey (1859-1952) would stress creating an environment that most

effectively contributed to student growth. Curriculum is not a static body of knowledge. Instead, it involves gathering and constructing ideas during the instructional process. The curriculum should be relevant to the students and their daily experiences. Still, Dewey believed that school should prepare students to learn free expression of ideas in a social setting while fostering self-development and the ability to intelligently participate in a democracy. Education is not about transmitting information to another generation; rather, teachers are encouraged to promote critical thinking skills and help students for an uncertain future. Students develop mental habits which enable them to assess and adjust to changing life situations that require effective problem solving techniques. Ultimately, the pragmatic teacher is a colleague and counselor to his/her students. Teachers view their role as transcending the traditional school setting and are willing to offers assistance long after their students graduate (Audi, 1999; Noddings, 1995).

The Importance of Criteria

The study of philosophy involves asking difficult questions about the criteria used to support assertions and arguments. Students can find these discussions frustrating at times because they might not know why they hold to certain values or convictions. Teachers can help alleviate some of this frustration by discussing the different types of criteria that are available to students as they develop rationale for their views:

Tradition- people rely upon past generations having adopted certain ideas or practices. Adherence to tradition can cause individuals or groups to repeat past errors.

Time- individuals believe certain ideas have withstood the test of time and nothing has proven them to be false. Unfortunately, flawed ideas can be approved for centuries before they are discovered to be faulty. For instance, patients often died from infections caused by surgeries because the doctors did not properly clean their hands between operations.

Emotions- individuals will be guided by their emotions or feelings and not facts to make both small and major personal and professional decisions.

Intuition- individuals do not know the source of truth and they make evaluations without a factual basis. Those who rely upon intuition must take the time to determine whether it is false or true.

Revelation- the source of truth is God. People who acknowledge revelation for obtaining truth must identify how they validate their ideas and beliefs.

Correspondence- "The criterion of correspondence states that an idea which agrees with its object is necessarily true (Sahakian & Sahakian, 1996, p. 8)." The problem with this criterion is the need for establishing a test to effectively discern the similarity between an idea or thought and reality.

Pragmatic- the sole criteria is if the idea works, then the results affirm that the idea is true. Yet, the pragmatic approach is too simplistic. Ideas may appear as being either true or false by immediate results but their accuracy and validity could require additional times such as medicine procedures for cancer.

Coherence- "As a criterion of truth, coherence refers to a systematic consistent explanation of all facts of experience. To be coherent, a person must arrange all pertinent facts so that they will be in proper relationships to one another consistently and cohesively as parts of an integrated whole" (Sahakian & Sahakian, 1996 p. 10-11)."

The list of different kinds of criteria for assessing philosophical arguments is not comprehensive but does reveal how individuals develop rationale for their beliefs.

Writing Philosophy Essays

A major instructional challenge for online instructors is helping students to develop a written version of their personal philosophy. Teachers must devote time to helping prepare students to write their philosophy essays. The author recommends using case studies or scenarios to spark thoughtful online discussions that promote the application of critical thinking skills. Students will need specific guidance to write their philosophy essays and it is important to clearly communicate academic expectations through handouts, class notes and grading rubrics. The basic personal philosophy essay should include cognitive strategies that analyze, synthesize and evaluate the material. This will require students to learn to take different points of view to support their ideas and beliefs. Students should be encouraged to use a variety of writing techniques (i.e. compare & contrast) and demonstrate how their ideas can withstand criticism. Also, they will need to carefully select and test their sources of evidence to determine if they effectively support their ideas. Often, students will need to write several essays to bring clarity and coherence to their personal philosophies. It is very important for online teachers to offer specific feedback to student questions while they write their essays and after they complete their assignment. The author writes detailed notes within the student's essay to highlight both the strengths and weaknesses (Kennedy, Kennedy & Holladay, 1996).

Conclusion

Taking online philosophy courses requires instructors who are know both their subject matter and who can effectively communicate with today's students. Philosophical studies provide another rationale for individuals to become life long learners who acquire a passion for knowledge and wisdom. A talented Doctor of Management student from the University of Phoenix highlights how teachers can promote transformative learning in their students:

> *The online environment requires instructors that can transform high tech into high touch and connect with their students, on an emotional level, despite the limitations of non-face-to-face communications...The ability of the online instructor to demonstrate care and concern for their students' success is a critical process step. Personally, I have experienced instructors that jumped off the screen with their*

passion and enthusiasm for leading learning teams into new subject matter. They literally projected themselves off the CRT (cathode ray tube) and materialized in the minds of their students as cheerleaders, offering support and encouragement with their online phraseology. This seems to ignite learning teams to new levels of critical thinking and reflection on their personal philosophy of knowledge. The synergy that is created also has a positive influence on writing assignments. Significant learning is created and more and better business applications may result (H. Leidy, personal communication, February 25, 2003).

References

Audi, R. (Gen. Ed.) (1999). The Cambridge dictionary of philosophy (2nd ed.). Cambridge: United Kingdom: Cambridge University.

Barell, J. (1991). Teaching for thoughtfulness: Classroom strategies to enhance intellectual development (2nd ed.). White Plains, NY: Longman.

Christenson, T. (2001). Wonder and critical reflection: An invitation to philosophy. Upper Saddle Creek, NJ: Prentice-Hall.

Horner, C., & Westacott, E. (2000). Thinking through philosophy: An introduction. Cambridge, UK: Cambridge University Press.

Kennedy, X. J. , Kennedy, D. M., & Holladay (1996). The Bedford guide for college writers (4th ed.). Boston, MA: Bedford Books.

Noddings, N. (1995). Philosophy of education. Boulder, CO: Westview.

Sahakian, W. S. & Sahakian, M. L. (1996). Ideas of the great philosophers. New York, NY: Barnes & Noble.

Solomon, R. C. & Higgins, K. M. (1996). A short history of philosophy. New York: Oxford University Press.

Woodhouse, M. B. (1994). A preface to philosophy (5th ed.). Belmont, CA: Wadsworth Publishing Company.

Integrating Critical Thinking into Online Classes

Brent Muirhead

Muirhead, B. (2002). "Integrating critical thinking into online classes." *USDLA Journal*, 16 (11).
http://www.usdla.org/html/journal/NOV02_Issue/article03.html

Editor's Note: Teachers need to develop class structures and online teaching styles that encourage creativity, reflective thinking, and self-directed learning. Today's online classes rely heavily on print, verbal skills, and critical thinking. This can be greatly enhanced by rich media environments, simulations, and curriculum that offers multiple perspectives. Online discussion supports development of critical thinking skills. Mature and self-directed students are more likely to be successful in online environments. Higher yields are possible through application of instructional design and cognitive learning psychology.

Introduction

The integration of critical thinking skills into the online curriculum is an essential to providing intellectually challenging and relevant learning experiences for students. The paper will offer a basic description of critical thinking and discuss how to engage students in higher order thinking skills.

Nature of Critical Thinking

Distance education literature contains frequent references to the importance of critical thinking and teachers are encouraged to cultivate reflective thought in their students. Yet, even veteran teachers will admit that integrating critical thinking instruction into their classes is one of their most difficult tasks. Teachers who want to enhance the teaching and learning process realize that fostering critical thinking skills will require extra work to effectively communicate complex ideas to their students. Bullen's research (1998) reveals that a student's ability to demonstrate critical thinking skills during online discussions is influenced by four major factors:

- cognitive maturity
- teaching style of instructor
- student's prior learning experiences
- degree of understanding the critical thinking process

The list of factors reveals that students will vary in their understanding of critical thinking skills and cognitive abilities. Therefore, teachers will need to develop a set of strategies that will help them to meet a diversity of student needs. A good starting point is to examine the literature on critical thinking to create an educational philosophy that reflects the latest research studies and teaching ideas.

Teaching to Enhance Critical Thinking

A review of critical thinking research can be somewhat confusing at times due to writers discussing various aspects of thinking. Sormunen and Chalupa (1994) bring some clarity to this problem by stressing that educational models classify critical thinking as both a product and process that combines psychological (i.e metacognition) and philosophical (i.e constructivist reasoning) elements. The good news is that there are a growing number of research studies that highlight how teachers can help their students improve their thinking skills.

Contemporary teachers face the reality that most of their instruction tends to focus on content knowledge and not on the process of learning transferable reflective skills Halpern (1998) relates, "despite all of the gains that cognitive psychologists have made in understanding what happens when people learn, most teachers do not apply their knowledge of cognitive psychology (paragraph 11)." In contrast to this report, the author has been encouraged by his observations of veteran teachers at the University of Phoenix. The author conducts peer reviews of faculty members and has noted that distance educators are devoting more instructional time to cultivating critical thinking skills.

Halpern (1998) stresses the dispositional aspect of thinking refers to whether individuals have developed reflective habits. Critical thinking requires mental effort and the personal discipline to work with complex problems. Individuals with a critical spirit are often inquisitive about the mysteries of life and strive to find the most reliable information. Facione (1998) notes, "critical thinking is about how you approach problems, questions, issues. It is the best way we know to get to the truth (paragraph 26)."

Teaching Strategies

Teachers will need to develop a class structure and online teaching style that encourages creativity, reflective thinking, and self-directed learning. It is important that teachers enable students to have the freedom to ask questions and take intellectual risks in their written assignments and discussion groups. Teachers can provide valuable guidance by keeping dialogues focused, relevant and probing deeper into issues. This will require moderating discussions and creating a list of key ideas, references and student contributions. Distance educators can pose a diversity of questions to foster reflective comments. Collision, Elbaum, Havvind & Tinker (2000) have created five types of questions to encourage richer student responses that are called full-spectrum questions:

- Questions that probe the "so what!" response-relevance, interest level, urgency and context
- Questions that clarify meaning or conceptual vocabulary- ambiguity or vagueness and common concepts

- Questions that explore assumptions, sources and rationale- qualities assumed and study evidence
- Questions that seek to identify causes and effects or outcomes-primary or secondary and causes, internal or external factors
- Questions that consider appropriate action- weigh different courses of action (p. 143).

Teachers should view the full-spectrum questions as tool for enhancing dialog. The choice of questions can be used to guide the discussion and help energize online interaction. It is wise not to overuse a question approach because students will the discussion become too predictable. Therefore, try to use pictures, cartoons, simulations or graphics instead of questions at different times during the course. Currently, the University of Phoenix is using more computer simulations in their business courses to promote realistic decision-making scenarios. Students enjoy learning activities that bring a slice of reality into the class that relates to their professional work environment.

According to Brookfield (1987), a major problem in our society has involved placing a placed a greater value on action oriented activities. He states “thinking is not seen as action, despite the fact that thinking is one of the most tiring activities in which we engage on a daily basis (p. 229).” Distance educators need to create relevant assignments that help students practice their critical thinking skills. The author teaches an online doctoral class on the philosophy of knowledge. Lectures are designed to help students to creatively apply philosophical ideas to contemporary social issues. The following brief mini-lecture will reveal how teachers can use popular culture to teach critical thinking skills. Students will learn some of the ways that a philosopher or historian of intellectual history might look at the television world and specifically at portion of the Star Trek television series.

Using Star Trek to Cultivate Critical Thinking Skills (Muirhead

The television industry is continually promoting its own views of reality that need to be challenged and examined by the American public. Reflective thinking enables people to be thoughtful citizens who resist simplistic answers to complex social problems.

Guiness (1994) notes that television shows contain four major kinds bias that influence it messages:

1. It has bias against understanding because it stresses images and emotions but it often lacks context and meaning that creates an illusion of knowledge.
2. Television conversations have a bias against responsibility by having a rapid approach that packages news into segments of intense images of dramatic events.
3. Programs have a bias against historical events because news reports are focused on today as being far more important than the past.
4. Television shows have a bias against rationality because attention is on performance by high profile individuals who prefer drama over reflective thought.

The popular Star Trek television series can be viewed as an interesting slice of American intellectual history. The following notes on Star Trek will highlight how various cast members from several different shows represent a certain perspective on understanding knowledge and truth.

Star Trek

Spock- completely rational solves problems with reasoning skills and represents the ideal Enlightenment man. Often, he resolves difficult problems for the crew members of the Enterprise.

Mission Goal- objective knowledge of the entire universe "the final frontier" and humans pursue the goal alone.

Star Trek: The Next Generation

Data - replaces Spock and he is an android who works with other crew members to find solutions to their problems.

Counselor Troy - uses her intuition to perceive human feelings and truthfulness.

Q - a divine being who is all knowing but morally ambiguous who displays a combination of cynicism, benevolence and self-gratification.

Mission Goal - to go where no man has gone before. Man needs the help of androids and other life forms to discover knowledge. Life is more complicated for people because appearances can be deceiving and truth is considered relative and incomplete.

Observation - the Star Trek series portray an optimistic technological future, but one filled with constant conflicts as the crew travels on their odyssey through space. The show sometimes diminishes the role of human reason and the possibility of objective knowledge. The Voyager series includes a first officer who is a Native American. He is a spirit guide that utilizes a combination of science and mysticism to help manage crisis situations. Ironically, the greatest threat is not being lost in some distant quadrant of space, but it is the loss of personal inner stability.

After sharing highlights from the Star Trek programs, teachers can discuss how the television series reflects different perspectives on truth, knowledge, ethics and intellectual trends. Students might notice that human reason is less important and there greater emphasis on relativism. What is a basic definition of the term? Barzun (2000) relates “it means flexible, adaptable, a sliding scale that gives a different reading in similar situations (p. 761).” Relativism appears to make few distinctions between moral codes, cultures and religions. They each reside in a certain time and place in history that should be respected and tolerated. Yet, Barzun argues that a civilized society often utilizes relative standards for applying the law to individual criminal cases. He maintains that the anti-relativists who embrace moral absolutes cannot effectively answer the question “Whose Absolute are we to adopt and impose?
(Barzun 2000, p. 762).”

This brief example reveals that popular culture can offer numerous instructional opportunities to help students refine their thinking skills through reading and reflective dialog.

Evaluating Critical Thinking Skills

Contemporary testing methods often fail to provide teachers with information on how students arrive at their responses to test items. Quantitative and qualitative assessment procedures can be useful but it is vital that "….the assessment must be sensitive enough to identify changes that have occurred in students' thinking skills (paragraph 14)." Critical thinking assessment instruments can include commercially designed tests, teacher made tests, check lists, open-ended questions, problem-solving scenarios or simulations. For instance, check lists can be used to evaluate a variety of student work such as gathering information on student online comments or portfolios. Check lists are useful tools to document evidence of student problem solving and decision making skills (Sormunen & Chalupa, 1994).

Teachers can integrate critical thinking into their classes by presenting information from a diversity of perspectives that involve both the cognitive and affective learning domains. The author has found that students really enjoy reading nonfiction short stories about individuals and their personal learning adventures. Teachers can share interesting and informative stories that offer insights into concepts such as perseverance in problem solving. Short stories can be included in lectures and handouts that stress descriptive information on critical thinking. Stories bring a human element into the online class environment that makes learning new ideas much more meaningful. Also, students should be given examples of creative thinking such as published journal and magazine articles. The following chart is an effective way to help students understand the multidimensional aspects of critical thinking.

Essential Critical Thinking Skills

(Woolfolk, 1990, p. 278)

- Defining and Clarifying the Problem
- Identify central issues or problems.
- Compare similarities and differences.
- Determine which information is relevant.
- Formulate appropriate questions.
- Judge Information Related to the Problem
- Distinguish between fact, opinion and reasoned judgment.
- Check consistency.
- Identify unstated assumptions.
- Recognize stereotypes and clichés.
- Recognize bias, emotional factors, propaganda and semantic slanting.
- Recognize different value systems and ideologies.

Solving Problems/Drawing Conclusions

- Recognize the adequacy of data.
- Predict probable consequences.

Online Instructional Challenges

The affective and psychological dimensions of distance education are important aspects of the teaching and learning process. Distance educators face the dilemma of how to foster critical thinking with students who vary in their need for academic guidance. Often, this problem is portrayed as teacher-directed versus student self-directed learning models. In reality, the online teacher will have to adapt his/her teaching style to meet the needs of their students. Berge (1999) relates that interaction in education "involves a continuum from teacher-centered to student-centered approaches" (p. 9).

Distance educators are challenged by using a text-driven form of education. Today's online classes rely heavily on printed materials and teacher created lectures and handouts. Therefore, the use of language becomes a focal point for teachers and students because the entire communication process is closely linked to thinking. Kirby & Goodpaster (2002) note "language works intimately with all aspects of our thinking …sensing, feeling, remembering, creating, organizing, reasoning, evaluating, deciding, persuading, and acting. As we become more aware of the strengths and weaknesses of language, and as we increase and refine our own language, we will think better (p. 98).

Conclusion

A major adult education goal is helping students become self-directed learners who learn to monitor and improve their thinking skills. Distance educators need to integrate meaningful instructional activities into their classes that promote internalization of critical thinking skills and knowledge. It is one of the unique challenges of teaching online but it is essential to fostering classes and degree programs that prepare students for leadership roles in our society.

References

Barzun, J. (2000). From dawn to decadence: 500 years of Western cultural life. New York: HarperCollins.

Berge, Z. L. (1999). Interaction in post-secondary web-based learning. *Educational Technology*, 39 (1), 5-11.

Brookfield, S. D. (1987). Developing Critical thinkers: Challenging adults to explore alternative ways of thinking and acting. San Francisco: Jossey-Bass.

Bullen, M. (1998). Participation and critical thinking in online university distance education. *Journal of Distance Education*. 13 (2).Available: http://cade.icaap.org/vol13.2/ bullen.html

Collison, G. Elbaum, B., Haavind, S., & Tinker, R. (2000). *Facilitating online learning: Effective strategies for moderators.* Madison, WI: Atwood Publishing.

Facione, P. A. (1998). Critical thinking: What it is and why it counts. Available: http://www.insightassessment.com/pdf_files/what&why98.pdf

Grenz, S. J. (1995). Star Trek and the Next Generation: Postmodernism and the future of evangelical theology. In D. S. Dockery (Ed.). *The challenge of postmodernism* (pp. 89-103). Wheaton, ILL: Victor Books.

Guiness, O. (1994). *Fit bodies Fat minds.* Grand Rapids, MI: Baker Books.

Halpern, D. F. (1998). Teaching critical thinking for transfer across domains: Dispositions, skills, structure training, and metacognitive monitoring. American Psychologists. 53(4), 449-455.

Kirby, G. R. & Goodpaster, J. R. (2002). *Thinking* (3rd ed.). Upper Saddle River, NJ: Pearson Education.

Muirhead, B. (2000).Using Star Trek to Enhance Critical Thinking Skills. *ASKERIC Lesson Plan.* Available: http://ericir.syr.edu/cgi-bin/printlessons.cgi/Virtual/Lessons/Language_Arts/Writing/WCP0074.html

Richards, T. (1997). *The meaning of Star Trek*. New York, NY: DoubleDay

Sormunen, C. & Chalupa, M. (1994). Critical thinking skills research: Developing evaluation techniques. *Journal of Education for Business.* 69 (3), 172-178. Retrieved from EBSCOhost from the online library at the University of Phoenix Online.

Woolfolk A. E. (1990). *Educational psychology* (4th ed.). Englewood Cliffs, NJ: Prentice Hall.

Effective Online Assessment Strategies for Today's Colleges and Universities

Brent Muirhead

Muirhead, B. (2002). "Effective Online Assessment Strategies for Today's Colleges & Universities." *Educational Technology & Society 5 (4) 2002.* Available: http://ifets.ieee.org/periodical/vol_4_2002/discuss_summary_october2002.html

Pre-Discussion Paper

Introduction

It is important for teachers to have a clear vision of their roles and responsibilities to provide the best teaching strategies for their students. The instructor's role is a dynamic one that requires having individuals who are able to create a virtual climate that encourages meaningful individual and collaborative learning. Assessment is an important element in the teaching and learning process that challenges instructors to consider evaluation techniques that meet the learning needs of today's adult learners.

Importance of Assessment

A holistic view will consider evaluation a vital part of the entire teaching and learning process. Adult learning should be evaluated to help individuals learn of their strengths and academic deficiencies that can be corrected during and after a course or seminar. The student should be given information on the quality of their work to have an accurate view of their learning. Additionally, the student should be given specific suggestions on how to improve their academic performance. Distance education studies reveal concerns that online instructors vary in the quality of their academic feedback to students. Instructors who fail to provide relevant and timely feedback are undermining the teaching and learning process. Students consider teacher assessment procedures as a relational prompt that transcends receiving grades on assignments. The absence of consistent teacher feedback creates doubt in the students' minds about their academic abilities while their classes seem more impersonal (Muirhead, 2002).

The process of assessment involves gathering information from a variety of sources to cultivate a rich and meaningful understanding of student learning. A primary aim of assessment is provide the necessary information to improve future educational experiences. Yet, it is vital that the assessment data be accurate and relevant to effectively make informed decisions about the curriculum. It requires taking the time to ask relevant questions that help evaluate the effectiveness of the teaching strategies and curriculum plans (Huba & Freed, 2000).

Vella, Berardinelli & Burrow (1998) relate that an important purpose of evaluation is "to determine if all of the learners developed important knowledge, skills, and attitudes as a result of the program (p.16)." This highlights that the evaluation of adult learning has a variety of instructional purposes and impacts various stakeholders who are interested in the educational process. Appropriate assessment instruments can offer valuable information to teachers, students and administrators. Ultimately, evaluation is important to the educational process because it provides feedback on whether the course and learning objectives have been achieved to satisfactory level.

Student-Centered Assessment Philosophy

McClellan's (2001) research study involving 130 third year undergraduate students reveals that often students viewed assessment as mainly a teacher oriented activity. Approximately 80% of the students viewed teacher evaluations as having limited value because they were not able to participate in the assessment process. The study highlighted the fact that even detailed teacher feedback on assignments did not replace the need for students to take personal ownership of their learning. The teacher dominated assessment model places emphasis on measuring achievement but discounts the need for students to play an active role in the evaluation process. It can create uncertainty among students who are always wondering about whether their school work has met the standards. This is a significant educational problem because it has a negative impact on the school setting. "Further, if students believe the criteria to be implicit, then they may see assessment as some sort of lottery in which they experience inequable treatment from idiosyncratic staff (Maclellan 2001, p. 316)."

A relevant approach to assessing adult learners supports a student centered educational philosophy. The focus involves helping individuals become more self-directed in their learning plans and activities. This is a situational goal that requires assessment procedures that acknowledges their needs, gifts and talents. Teachers must recognize that adults are autonomous learners who have varying degrees of independence in their study habits and desire relevance in the evaluation of their assignments (Caffarella, 1993).

The student-centered model of learning encourages teachers to view their students as academic partners who work together to produce relevant and meaningful learning experiences. It requires professors who are willing to change their standard teaching methods. Boud (1995) related "they will need to become researchers of student perceptions, designers of multifaceted assessment strategies, managers of

assessment processes and consultants assisting students in the interpretation of rich information about their learning" (p. 42).

Huba & Freed (2000, p. 33) have noted eight features that are considered the hallmark of learner-centered teaching:

- Learners are actively involved and receive feedback.
- Learners apply knowledge to enduring and emerging issues and problems.
- Learners integrate discipline-based knowledge and general skills.
- Learners understand the characteristics of excellent work.
- Learners become increasingly sophisticated learners and knowers.
- Professors coach and facilitate, intertwining teaching and assessing.
- Professors reveal they are learners, too.
- Learning is interpersonal, and all learners---students and professors ---are respected and valued.

Assessment philosophy and practices must affirm that adult learners do vary in their needs due to such factors as having different cognitive experiences and educational backgrounds. Therefore, it is important that learning should be more individualized and offer significant connections to their personal and professional lives. Assessment procedures need to foster a meaningful bridge between academic knowledge, skills and experiences of the classroom to the student's daily job. Teachers are challenged to create evaluations that reflect respect for adult learners' experiences while promoting growth (Collison, Elbaum, Haavind & Tinker, 2000).

A major concern among academic officials has often focused on the quality of educational experiences within an online class. Carnevale (2000) relates that research studies indicate that the essential features of a good course include "interaction between instructors and students, a student-centered approach and built-in opportunities for students to learn on their own" (p. A46). Creating and sustaining a quality online degree program is a challenging venture. There are a variety of factors that can have either a positive or negative impact on the online educational setting. These factors are (Cooper, 2000):

- the level of expertise of the online faculty (technical & online experience);
- the degree of administrative financial support;
- the technological infrastructure of the school;
- student support system to handle academic and computer related issues;
- the depth and quality of faculty training and professional development programs.

Additionally, the assessment process can be influenced by instructional design issues. Course developers are challenged to make a host of decisions that can have an impact on the assessment process. Lockee, Moore & Burton (2002) observe that "even an instructionally sound, online course can fail to produce learning outcomes if students encounter a poorly designed Web site (p. 22).

Alternative Assessments

The advent of alternative assessments has come as the result of various educators who have been frustrated with the limitations of the conventional evaluation methods (Sanders, 2001). It is interesting that more traditional educators are using alternative assessment methods. There are two major differences between the traditional educator and those who use alternative assessment. The first is that the traditional educator is more dependent upon on fewer assignments to evaluate student performance. The traditional teachers will stress tests and term papers as their main resources for assessing student work. In contrast, teachers who use alternative assessment procedures will use a variety of assignments that might include portfolios, Power Point presentations, book reviews and interviews of study participants (Travis, 1996).

Alternative assessment methods are promoted as a way to encourage authentic learning. Students are given a diversity of learning opportunities to display critical thinking skills, greater depth of knowledge, connect learning to their daily lives, develop a deeper dialog over the course material and foster both individual and group oriented learning activities. Alternative assessments offer teachers new perspectives on student learning such as insights to their individual learning styles. Yet, teachers have reported that alternative evaluation methods require large amounts of time to develop and integrate into the curriculum. It is wise to create a plan that alleviates the grading of student work by limiting the number and size of projects (Robinson, 1995).

Alternative assessment projects can encourage reflective thinking and self-directed learning activities involving the personal construction of knowledge. Students are taught to be knowledge creator's not just receivers of information. Teachers can promote higher order thinking skills by having evaluation procedures that allow students to vary their responses to questions (Davies, 1999). It is important that teachers communicate their evaluation criteria to their students to eliminate confusion over project expectations. It is essential that teachers provide clear criteria that supports high academic standards and brings consistency to the grading process. For instance, history teachers will need to create a rubric that will assess student knowledge and skills within that academic discipline (Drake, 2001).

Grading Rubric

The grading rubric represents an affirmation of learner-centered education. It is a public statement that strives to establish a greater level of trust between the teacher and student. It rejects the notion that grading is a special secret activity that only some of the learners can understand the instructor's actual grading procedures. Secondly, it is designed to establish a set of instructional expectations and standards for the course. A rubric provides an instrument for student feedback that promotes assessment of learning. A good rubric will reveal valuable data on how the student's work compares to the course standards. Rubrics are significant because of their capacity to clearly reveal vital information to students that enable them to improve their knowledge and skill levels (Huba & Freed 2000).

Rubrics have the potential to be excellent assessment tools because they offer students a vision of what the teacher is seeking to accomplish in the class and why it is important. A rubric can indicate whether students will be expected to explore knowledge beyond the assigned textbooks. Students need to know the skills and knowledge expertise that are expected within a course. Therefore, students want to have an accurate understanding what is considered good performance. Teachers can use a rubric to demonstrate how a particular set of skills and knowledge will compare with class objectives, educated individuals and even within a professional field or academic discipline. Students appreciate that the information they are learning are truly valued in their field of work and not just a preference of an individual teacher. In fact, some teachers will invite students to provide their thoughts on a rubric before it is finalized to insure that the rubric is relevant to their students (Huba & Freed, 2000).

The use of rubrics is one way to help promote effective evaluation procedures that reduces subjective grading procedures and offer student relevant information on their academic performance. Huba & Freed (2000) have outlined five key elements for creating a rubric:

levels of mastery- achievement are described according to terms such as excellent, good, needs improvement and unacceptable.

dimensions of quality- assessment can address a variety of intellectual or knowledge competencies that target a specific academic discipline or involve multiple disciplines.

organizational groupings- students are assessed for multidimensional skills such as teamwork that involves problem solving techniques and various aspects of group dynamics.

commentaries- this element of the rubric provides a detailed description of the defining features that should be found in the work. The instructor creates the categories for what is considered as being excellent, sophisticated or exemplary.

descriptions of consequences-this is a unique rubric feature that offers students insight into various lessons of their work in a real life setting (i.e. professionalism).

The five rubric elements offer trainers and educators rich categories to develop their evaluation procedures to fit the learning needs of their student population.

Alternative Assessment Method: Journal Writing

Reflective journals are an excellent way to evaluate student learning. Journal writing can be an effective way to gather insights into student attitudes and a practical format to enhance student-teacher communication (Robinson, 1995). The journal writing assignments can be structured to address the primary course learning objectives. At the University of Phoenix, online doctoral students integrate journal writing in their Doctor of Management degree program. The students can use their journals to meet a variety of learning needs such as reflecting on research studies that are important to their dissertation. Muirhead (2001) shares seven major advantages to journal writing:

Provides an aid to our memory- researchers and writers have learned the value of recording their ideas for future use.

Provide a basis for creating new perspectives- it creates a framework to explore relationships and arguments between ideas.

Enhances critical thinking skills- learning to analyze the underlying assumptions of our actions and those of others is a very liberating process.

Provides psychological/emotional advantages- it enables individuals to work through difficult work or personal situations that can promote healing and growth.

Offers opportunities to increase empathy for others- individuals can address social issues and enhance their understanding of our society and world.

Provides a way to practical way to understand books/articles- writing creates a format to regularly examine reading materials and improve our ability to comprehend and recall knowledge.

Provides support for self-directed learning activities- journal writing requires personal discipline and establishing individual learning goals to complete journaling assignments.

Teachers can use journal writing in a variety of academic disciplines as a creative way to enrich their instructional activities. It is essential that teachers provide timely and constructive feedback to help students have the time to make the necessary changes in their work before turning in their next assignment.

Conclusion

The student-centered learning model challenges teachers to carefully use descriptive language in their written and verbal comments to their students. Teachers must develop dialogues with their students that foster personal and professional growth. Obviously, the language of assessment must be caring and honest while providing constructive feedback that helps the learner have a clear picture of their academic work.

Critics of alternative assessments raise legitimate concerns about excessive administrative time to prepare and grade assignments. Yet, alternative assessments offer teachers unique opportunities to create relevant work that promotes academic achievement and individualizes the educational process. It is important to help new and veteran teachers become more familiar with alternative assessments through classes, workshops and other professional development activities (Liebers, 1999).

Discussion Questions

- What steps can distance education schools take to prevent grade inflation?
- What are the benefits and limitations of student feedback on teacher effectiveness during the online course?
- What are the advantages of having a standards-based assessment paradigm?
- What types of research projects would help to improve the quality of today's online assessment practices?

References

Boud, D. (1995). Assessment and learning: Contradictory or complimentary? In P. Knight (Ed.) *Assessment for learning in higher education,* (pp. 35-48).London: Kogan Page.

Caffarella, R. S. (1993). Self-directed learning. In S. B. Merriam (Ed.). An update on adult learning theory.*New directions for adult and continuing education,* 57, 25-35.San Francisco: Jossey-Bass.

Carnevale, D. (2000). Study assesses what participants look for in high-quality online courses. *Chronicle of Higher Education,* 47 (9), A46.

Collison, G. Elbaum, B., Haavind, S., & Tinker, R. (2000).*Facilitating online learning: Effective strategies for moderators.*Madison, WI: Atwood Publishing.

Cooper, L. (2000). Online courses. *THE Journal*, 27 (8), 86-92.

Drake, Frederick (2001). Eric digest: Improving the teaching and learning of history through alternative assessments. *Teacher Librarian, 28 (3),* 32-35.

Davies, M., Wavering, M. (1999). Alternative assessment: New directions in teaching and learning. *Contemporary Education, 71 (1),* 39-45.

Huba, M. E. & Freed, J. E. (2000). Learner-centered assessment on college campuses: Shifting the focus from teaching to learning. Boston, MA: Allyn & Bacon.

Liebers, C. S., (1999). Journals and portfolios: Alternative assessment for preservice teachers. Teaching Children Mathematics, 6 (3), 164-169.

Lockee, B. Moore, M., Burton, J. (2002).Measuring success: Evaluation strategies for distance education.*Educause Quarterly*, 1, 20-26.

Maclellan, E. (2001). Assessment for learning: The differing perceptions of tutors and students. *Assessment & Evaluation in Higher Education,* 26 (4), 307-318.

Muirhead, B. (2002). Relevant assessment strategies for online colleges & universities. *USDLA Journal*, 16 (1), http://www.usdla.org/html/journal/FEB02_Issue/ article04.html.

Muirhead, B. (2001). Learning leadership journal: Handout.Doctor of Management Class, DOC 791.University of Phoenix Online, Phoenix, Arizona.

Robinson, M. (1995).Alternative assessment techniques for teachers. *Music Education Journal, 81 (5*), 28-34.

Sanders, L. R. (2001).Improving assessment in university classrooms. *College Teaching, 49 (2),* 62-64.

Travis, J. E. (1996). Meaningful assessment. *Clearing House, 69 (5*), 308-312.

Vella, Berardinelli & Burrow (1998). *How do they know they know? Evaluating adult learning.* San Francisco, CA: Jossey-Bass.

Acknowledgement

The author wants to thank the editors of USDLA Journal, Donald Perrin and Elizabeth Perrin for their permission to use the following article in this paper: Muirhead, B. (2002). Relevant assessment strategies for online colleges & universities.*USDLA Journal*, 16 (1).

Post-Discussion Summary

The discussion involving online assessment began with a focus on the need to provide appropriate feedback to students. Online teachers struggle with providing enough feedback to meet student learning expectations. Anita Pincas observed that "despite the rich range of experiences and collaboration that we expose them to, and from which they

definitely learn, some still comment that they would have liked more feedback than we give them. Thus, I conclude for the moment that it is a bottomless pit. The more we do, the more will be asked of us."

Anita Pincas felt that peer assessment and peer support was a practical way to improve the entire evaluation process. Today's tight economic climate has fostered an era of limited financial resources and schools can not afford to hire additional online instructional staff. Therefore, schools must creatively find ways to better use their available resources.

Martyn Wild stressed the need for distance educators to establish assessment boundaries, "the answer, or at least one of them, is not necessarily more resources, but to put more 'boundaries' around the notion of assessment… By boundaries, I'm referring to the development of structures and expectations. In particular, we need to develop the online structures (or strategies) by which students are assessed; and at the same time, mature the expectations in students, as to how and to what extent, they are assessed."

The discussion participants affirmed the need to make assessment a central part of the teaching and learning process. Teachers will admit that assessment can be one of their more difficult teaching duties due to heavy work loads. Anne-Marie Armstrong emphasized that both students and teachers must adjust their assessment perspectives to make it become an integral part of online education. Appropriate assessment procedures offers opportunities to discern what students have and have not learned during a class. Muhammad Betz noted that students have their own unique set of course expectations "many students are taking courses in order to get diplomas and credentials, and while such students are interested in learning, the interest is secondary to achievement. There are assessment limitations deriving from this student variable as well."

Today's teachers should develop instructional plans that offer assessment procedures that support both high academic standards and have a degree of openness. The two concepts acknowledge the importance of having a multidimensional view of assessment that strives to evaluate a diversity of learning objectives. A comprehensive assessment philosophy will address vital issues such as the role of peer assessment in undergraduate and graduate online education. Morgan & O'Reilly (1999) offer six key qualities that should be reflected in distance education assessment:

1. A clear rationale and consistent pedagogical approach.
2. Explicit values, aims, criteria and standards
3. Authentic and holistic tasks
4. A facilitative degree of structure
5. Sufficient and timely formative assessment
6. Awareness of the learning context and perceptions (pp. 30-32).

Distance educators who want to enhance the teaching and learning process realize that fostering critical thinking skills will require extra work to effectively communicate complex ideas to their students. Bullen's research (1998) reveals that a student's ability to demonstrate critical thinking skills in online dialog is influenced by four major factors:

1. cognitive maturity
2. teaching style of instructor
3. student's prior learning experiences
4. degree of understanding the critical thinking process

The short list of factors highlights that students will vary in their understanding and reflective abilities. Therefore, teachers will need to develop a set of strategies that will help them to meet a diversity of student needs. It is wise read through critical thinking literature to formulate a personal philosophy and create appropriate assessment instruments.

As a veteran online educator, one of my greatest challenges is assessing critical thinking skills. Carolee & Chalupa (1994) state that "regardless of the way in which critical thinking is evaluated, the assessment must be sensitive enough to identify changes that have occurred in students' thinking skills (paragraph 13)." The authors discuss the use of commercial tests and teacher made evaluation instruments and offer advice on multiple-choice tests, checklists and open-ended questions.

Assessment literature stresses that teachers must establish criteria for evaluation and students need to have a good understanding of the critical thinking process. The following chart provides an informative list of essential critical thinking skills.

Essential Critical Thinking Skills (
Woolfolk 1990, p. 278)

- Defining and Clarifying the Problem
- Identify central issues or problems.
- Compare similarities and differences.
- Determine which information is relevant.
- Formulate appropriate questions.
- Judge Information Related to the Problem.
- Distinguish between fact, opinion and reasoned judgment.
- Check consistency.
- Identify unstated assumptions.
- Recognize stereotypes and clichés.
- Recognize bias, emotional factors, propaganda and semantic slanting.
- Recognize different value systems and ideologies.
- Solving Problems/Drawing Conclusions
- Recognize the adequacy of data.
- Predict probable consequences.

Conclusion

The discussion participants were concerned about providing the best feedback to their students. They felt that instructors must explore assessment strategies that enabled them to offer timely and relevant feedback. Mark Nichols noted "feedback

is certainly a vital educational tool in its own right, not least because it is personalized and usually fully customized. It also has the student's complete attention - which is surely reason enough for maximizing it!" Yes, teacher assessment will often capture the student's attention. Hopefully, it will foster student academic achievement and a life-long love for learning.

References

Bullen, M. (1998). Participation and critical thinking in online university distance education. *Journal of Distance Education*, 13 (2).Available: http://cade.icaap.org/vol13.2/bullen.html

Carolee, S. & Chalupa, M. (1994). Critical thinking skills research: Developing evaluation techniques. *Journal of Education for Business*. 69 (3), 172-178. Retrieved October 9, 2002 from the online library at the University of Phoenix Online.

Morgan, C., & O'Reilly, M. (1999). Assessing open and distance learners. London: Kogan Page.

Woolfolk A. E. (1990). *Educational psychology* (4th ed.). Englewood Cliffs, NJ: Prentice Hall.

Training New Online Teachers

Brent Muirhead

Muirhead, B. (2002). “Training new online teachers.” *USDLA Journal*, 16 (10). Available: http://www.usdla.org/html/journal/OCT02_Issue/article06.html

***Editor’s Note**: This month USDLA’s Online Editor, Brent Muirhead, presents valuable information on mentoring from the literature and from his experience with the University of Phoenix. Mentoring should immediately follow training to reduce stress and improve performance of new online teachers.*

The distance educator is challenged by the need to foster and sustain online discussion during courses. A quick review of distance education literature highlights the importance of communication in the teaching and learning process. The focus of this discussion is assisting new teachers to establish an online dialog philosophy that include essential strategies.

The Mentoring Process

The new online instructor often has an assortment of feelings when he or she starts their first online class. They are excited about teaching online and participating in a new instructional role that is filled with diverse educational challenges for professional growth. Yet, the new teacher can have fears about failing that need to be addressed prior to the start of their online class. The teachers’ fears are about venturing into the unknown educational areas that they have little or no knowledge about. It is important that teachers are given opportunities to become familiar with the basic elements of their online course work such as how to communicate using e-mail, strengths and weaknesses of the course software, and key people to contact for technology expertise. For instance, the University of Phoenix has developed a large technical staff for teachers and students that are available to meet immediate technology needs.

The wise administrator will provide a training period for new instructors to help them learn in an actual online environment. Also, it helps distance education schools offer information on their policies, organizational practices and educational philosophy. Lynch (2002) notes that "it is only by actually experiencing the online environment as a student that teachers finally understand student fears, stress, frustrations, and joys in learning in the Web-based environment (p. 67)."

Mentoring new online teachers should follow closely after initial training to consolidate and enlarge upon what was learned and apply it in their own online courses. Ideally, new teachers should have their first online class within one or two months of training.

Faculty schedulers need to devise a system that integrates new teachers into online classes as rapidly as possible. It is also important to identify veteran faculty members who can participate in the mentoring program. Administrators need to recruit teacher-mentors who possess subject matter expertise, excellent communication skills and have experience teaching distance education classes. It is also important to create a teacher salary structure that fairly compensates the mentor for sharing knowledge and skills during the mentorship.

Henry (1996) provides relevant advice for effective mentoring:

- Maintain regular contact. Mentors should assume they are the givers in the relationship. Consistent contact models dependability and builds trust. At least weekly contact is recommended.
- Always be honest. Trust and respect are the foundations on which mentorships are built.
- Avoid being judgmental of a protege's life situation. Acceptance without conditions communicates that your concern comes without strings attached.
- Avoid excessive gift giving. And don't do for a protege what s/he can do for him/herself. Your greatest gift is to help a person discover his/her own solutions to problems.
- Don't expect to have all the answers. Sometimes just listening attentively is all people need.
- Help your protege access resources and expand support networks. Discuss the importance of maintaining positive relationships.
- Be clear about your expectations and your boundaries. Set up ground rules and communicate them.
- Avoid being overwhelmed by your protege's problems. Remain calm and dispassionate to help proteges solve problems.
- Respect confidentiality. Good friends do.
- If the relationship seems to stall, hang in there (Henry -- paragraph 4)

Henry’s recommendations stress the importance of cultivating a positive and productive relationship between the mentor and faculty candidate. Mentors can generate relational conflicts by being too controlling and not giving their colleagues the freedom to take some professional risks in their online classes. The wise mentor always strives to create a learning relationship that promotes self-directed attitudes and behaviors in their faculty candidates. The primary goal of the mentorship is to help prepare individuals to be effective instructors who will have the skills, knowledge and confidence to independently teach their students.

At the University of Phoenix, faculty candidates have two weeks of preparation time to work with their mentor prior to the start of the class. It is a time where the mentor can

provide feedback on their lectures, syllabus and personal biography. The pre-course activities enable new teachers to have their curriculum plans and materials prepared for the first week of class. The preparation phase is a vital element in the mentoring process and if the new teacher fails to demonstrate adequate progress on their course materials, the mentor will postpone their first class. The mentorship process does provide diverse opportunities for new teachers to reflect on their instructional plans and strategies. Mentorship programs should offer new faculty members:

- a structured process that has clear goals
- a nurturing and supportive climate
- offer professional insights and reflective dialog (SchoolNet, SA, 2002).

Veteran mentors devote a lot of time to helping their faculty candidate prepare a solid course syllabus. A syllabus that lacks clarity about teacher expectations for assignments will foster confusion in the classroom. The syllabus can provide clear instructions for students while offering them a time management device to integrate school work into their busy daily lives. Also, the syllabus plays a vital role in helping students understand the teacher's expectations and establishes a foundation for positive learning experiences. Fullmer-Umari (2000) a faculty member at the University of Phoenix recommends that teachers should consider using seven key elements in their syllabus:

1. Course description and overview of subjects covered during the class
2. Teacher' biographical sketch that highlights both professional and personal experiences
3. Teacher contact information (e-mail addresses and telephone numbers)
4. Assignment schedule for each week of the course (papers, readings, etc.)
5. Review of university/class policies for attendance, grading, participation, late assignments, tests and specific details on academic honesty.
6. Request for student biographical sketches to be e-mailed to a class online newsgroup
7. Discuss frequently asked questions about assignments and computer problems.

The "live" classroom setting creates a practical place for teachers to translate their learning theories into concrete educational experiences (see Figure 1).

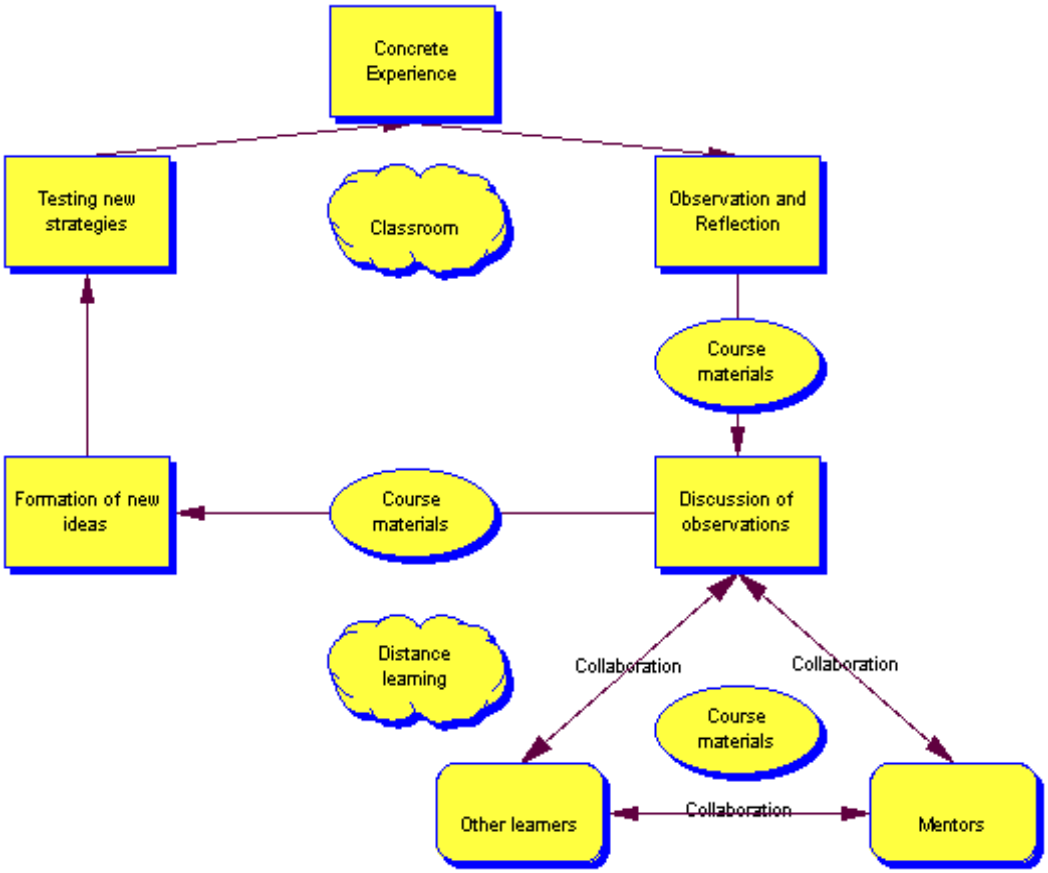


Figure 1 Reflective Mentoring Process (with permission from SchoolNet SA (2002)

The chart highlights the dynamic nature of the mentoring process. The creation of weekly lectures, discussion questions and other course materials does not occur in a social vacuum. Rather, the new teacher will learn many valuable lessons while working in the online environment. It is a practical way to evaluate instructional strategies by receiving feedback from the mentor and students. At the University of Phoenix, faculty candidates receive weekly reports from their mentor that address issues such as the number of days the teacher was an active participant in the class. Teachers are expected to be involved in the class 5 out of 7 days because their online presence is consider vital to having consistent social interaction and academic dialog during the course. Additionally, students complete faculty surveys during the course that provide relevant information on the teacher's performance. The mentor will receive the student surveys and delete the student names and share the information with their faculty candidates.

Student feedback provides a good dose of reality for new teachers. Teachers must avoid assigning papers and projects prior to preparing students to have enough background information to effectively complete the work. New facilitators will find that moderating an online discussion is a vital task that helps shape the entire perspective of the course. The teacher must integrate online dialog into their instructional plans and strategies. Edelstein & Edwards (2002) recommend that teachers need to ask themselves a series of questions before creating the dialog portion of the course:

- How much value do I place on the threaded discussion for this module?
- Will the threaded discussion achieve the objective for the module alone? If not, what other activities should be developed?
- How much time is needed by the student to sufficiently complete this module?
- Will the student spend so much time finishing the assignments that opportunity to adequately reflect and apply the module material to their personal knowledge is nonexistent? (paragraph 9)

Conclusion

It is important that mentors provide a flexible framework for their faculty candidates to learn the essential skills and knowledge to be an effective online instructor. The ultimate goal of the mentorship is to prepare teachers to be independent facilitators who can provide quality educational experiences for their students.

References

Edelstein, S. & Edwards, J. (2002). If you will build it, they will come: Building learning communities through threaded discussions. *Online Journal of Distance Learning Administration, 5 (1).* http://www.westga.edu/%7Edistance/ojdla/spring51/edelstein51.html

Fullmer-Umari, M. (2000). Getting ready: The syllabus and other online indispensables. In K.W. White & B. H. Weight (Eds.) *Online teaching guide: A handbook of attitudes, strategies, and techniques for the virtual classroom,* Needham Heights, MA: Allyn & Bacon.

Lynch, M. M (2002). The online educator: A guide to creating the virtual classroom. New York, NY: RoutledgeFalmer

Henry, N. (1996). Mentoring Myths and Tips. *The Resource Connection*, 2 (1). http://www.etr.org/nsrc/rcv2n1/mentoring.html

SchoolNet, SA (2002).Educator development for ICT Framework. Retrieved September 4, 2002. http://www.school.za/edict/edict/

Relevant Assessment Strategies for Online Colleges and Universities

Brent Muirhead

Muirhead, B. (2002). "Relevant assessment strategies for online colleges & universities." *USDLA Journal*, 16 (1). Available: http://www.usdla.org/html/journal/FEB02_Issue/article04.html

Editor's Note: *Assessment is a flash point and catalyst for controversy - focused not only on Distance Learning versus Face to Face classes but also acceptance of materials by which student mastery is judged. Dr. Muirhead provides us with insightful research in assessment of assessment.*

Introduction

It is important for teachers to have a clear vision of their roles and responsibilities to provide the best teaching strategies for their students. The instructor's role is a dynamic one that requires having individuals who are able to create a virtual climate that encourages meaningful individual and collaborative learning. Assessment is an important element in the teaching and learning process that challenges instructors to consider evaluation techniques that meet the learning needs of today's adult learners.

Importance of Assessment

The teacher's assessment strategies are significant because they provide a relational prompt for students and insights into the educational process. Evaluating the teaching and learning process involves a host of activities such as creating course objectives, gathering data from a variety of sources and often assigning grades for student work. Hopefully, relevant assessment methodology should accurately inform both the teacher and student about the quality of the learning experiences.

A holistic view of evaluation will consider it as a vital part of the entire teaching and learning process. Adult learning should be evaluated to help individuals learn of their strengths and academic deficiencies that can be corrected during and after a course or seminar. The student should be given information on the quality of their work to have accurate view of their learning. Additionally, the student should be given specific suggestions on how to improve their academic performance.

The process of assessment involves gathering information from a variety of sources to cultivate a rich and meaningful understanding of student learning. A primary aim of assessment is provide the necessary information to improve future educational experiences. Yet, it is vital that the assessment data be accurate and relevant to effectively make informed decisions about the curriculum. It requires taking the time to ask relevant questions that help evaluate the effectiveness of the teaching strategies and curriculum plans (Huba & Freed 2000).

Vella, Berardinelli & Burrow (1998) relate that an important purpose of evaluation is "to determine if all of the learners developed important knowledge, skills, and attitudes as a result of the program (p. 16)." This highlights that the evaluation of adult learning has a variety of instructional purposes and impacts various stakeholders who are interested in the educational process. Appropriate assessment instruments can offer valuable information to teachers, students and administrators. Ultimately, evaluation is important to the educational process because it provides feedback on whether the course and learning objectives have been achieved to satisfactory level.

Student-Centered Assessment Philosophy

A relevant approach to assessing adult learners supports a student centered educational philosophy. The focus involves helping individuals become more self-directed in their learning plans and activities. This is a situational goal that requires assessment procedures that acknowledges their needs, gifts and talents. Teachers must recognize that adults are autonomous learners who have varying degrees of independence in their study habits and desire relevance in the evaluation of their assignments (Caffarella, 1993).

The student-centered model of learning encourages teachers to view their students as academic partners who work together to produce relevant and meaningful learning experiences. It requires professors who are willing to change their standard teaching methods. Boud (1995) related "they will need to become researchers of student perceptions, designers of multifaceted assessment strategies, managers of assessment processes and consultants assisting students in the interpretation of rich information about their learning" (p. 42).

Huba & Freed (2000, p. 33) have noted eight features that are considered the hallmark of learner-centered teaching:

1. Learners are actively involved and receive feedback.
2. Learners apply knowledge to enduring and emerging issues and problems.
3. Learners integrate discipline-based knowledge and general skills.
4. Learners understand the characteristics of excellent work.
5. Learners become increasingly sophisticated learners and knowers.
6. Professors coach and facilitate, intertwining teaching and assessing.
7. Professors reveal they are learners, too.
8. Learning is interpersonal, and all learners---students and professors ---are respected and valued.

Assessment philosophy and practices must affirm that adult learners do vary in their needs due to such factors as having different cognitive experiences and educational backgrounds. Therefore, it is important that learning should be more individualized and offer significant connections to their personal and professional lives. Assessment procedures need to foster a meaningful bridge between academic knowledge, skills and experiences of the classroom to the student's daily job. Teachers are challenged to create evaluations that reflect respect for adult learners' experiences while promoting growth (Collison, Elbaum, Haavind & Tinker, 2000).

The advent of alternative assessments has come as the result of various educators who have been frustrated with the limitations of the conventional evaluation methods (Sanders, 2001). It is interesting that more traditional educators are using alternative assessment methods. There are two major differences between the traditional educator and those who use alternative assessment. The first is that the traditional educator is more dependent upon on fewer assignments to evaluate student performance. The traditional teacher will stress tests and term papers as their main resources for assessing student work. In contrast, teachers who use alternative assessment procedures will use a variety of assignments that might include portfolios, Power Point presentations, book reviews and interviews of study participants (Travis, 1996).

Alternative Assessments

Alternative assessment methods are promoted as a way to encourage authentic learning. Students are given a diversity of learning opportunities to display critical thinking skills, greater depth of knowledge, connect learning to their daily lives, develop a deeper dialog over the course material and foster both individual and group oriented learning activities. Alternative assessments offer teachers new perspectives on student learning such as insights to their individual learning styles. Yet, teachers have reported that alternative evaluation methods require large amounts of time to develop and integrate into the curriculum. It is wise to create a plan that alleviates the grading of student work by limiting the number and size of projects (Robinson, 1995).

Alternative assessment projects can encourage reflective thinking and self-directed learning activities involving the personal construction of knowledge. Students are taught to be knowledge creator's not just receivers of information. Teachers can promote higher order thinking skills by having evaluation procedures that allow students to vary their responses to questions (Davies, 1999). It is important that teachers communicate their evaluation criteria to their students to eliminate confusion over project expectations. It is essential that teachers provide clear criteria that supports high academic standards and brings consistency to the grading process. For instance, history teachers will need to create a rubric that will assess student knowledge and skills within that academic discipline (Drake, 2001).

Grading Rubric

The grading rubric represents an affirmation of learner-centered education. It is a public statement that strives to establish a greater level of trust between the teacher and student. It rejects the notion that grading is a special secret activity that only some of the learners can understand the instructor's actual grading procedures. Secondly, it is designed to establish a set of instructional expectations and standards for the course. A rubric provides an instrument for student feedback that promotes assessment of learning. A good rubric will reveal valuable data on how the student's work compares to the course standards. Rubrics are significant because of their capacity to clearly reveal vital information to students that enable them to improve their knowledge and skill levels (Huba & Freed 2000).

Rubrics have the potential to be excellent assessment tools because they offer students a vision of what the teacher is seeking to accomplish in the class and why it is important. A rubric can indicate whether students will be expected to explore knowledge beyond the assigned textbooks. Students need to know the skills and knowledge expertise that are expected within a course. Therefore, students want to have an accurate understanding what is considered good performance. Teachers can use a rubric to demonstrate how a particular set of skills and knowledge will compare with class objectives, educated individuals and even within a professional field or academic discipline. Students appreciate that the information they are learning are truly valued in their field of work and not just a preference of an individual teacher. In fact, some teachers will invite students to provide their thoughts on a rubric before it is finalized to insure that the rubric is relevant to their students (Huba & Freed 2000).

The use of rubrics is one way to help promote effective evaluation procedures that reduces subjective grading procedures and offer student relevant information on their academic performance. Huba & Freed (2000) have outlined five key elements for creating a rubric:

1. **levels of mastery**- achievement is described according to terms such as excellent, good, needs improvement and unacceptable.
2. **dimensions of quality**- assessment can address a variety of intellectual or knowledge competencies that target a specific academic discipline or involve multiple disciplines.
3. **organizational groupings**- students are assessed for multidimensional skills such as teamwork that involves problem solving techniques and various aspects of group dynamics.
4. **commentaries**- this element of the rubric provides a detailed description of the defining features that should be found in the work. The instructor creates the categories for what is considered as being excellent, sophisticated or exemplary.
5. **descriptions of consequences**-this is a unique rubric feature that offers students insight into various lessons of their work in a real life setting (i.e. professionalism).

The five rubric elements offer trainers and educators rich categories to develop their evaluation procedures to fit their student population and various academic disciplines.

Alternative Assessment Methods: Journal Writing

Reflective journals are an excellent way to evaluate student learning. Journal writing can be an effective way to gather insights into student attitudes and a practical format to enhance student-teacher communication (Robinson, 1995). The journal writing assignments can be structured to address the primary course learning objectives. At the University of Phoenix, online doctoral students integrate journal writing in their Doctor of Management degree program. The students can use their journals to meet a variety of learning needs such as reflecting on research studies that are important to their dissertation. Muirhead (2001) shares seven major advantages to journal writing:

1. **Provides an aid to our memory**- researchers and writers have learned the value of recording their ideas for future use.
2. **Provide a basis for creating new perspectives**- it creates a framework to explore relationships and arguments between ideas.
3. **Enhances critical thinking skills**- learning to analyze the underlying assumptions of our actions and those of others is a very liberating process.
4. **Provides psychological/emotional advantages**- it enables individuals to work through difficult work or personal situations that can promote healing and growth.
5. **Offers opportunities to increase empathy for others**- individuals can address social issues and enhance their understanding of our society and world.
6. **Provides a way to practical way to understand books/articles**- writing creates a format to regularly examine reading materials and improve our ability to comprehend and recall knowledge.
7. **Provides support for self-directed learning activities**- journal writing requires personal discipline and establishing individual learning goals to complete journaling assignments.

Teachers can use journal writing in a variety of academic disciplines as a creative way to enrich their instructional activities. It is essential that teachers provide timely and constructive feedback to help students have the time to make the necessary changes in their work before turning in their next assignment.

Conclusion

The student-centered learning model challenges teachers to carefully use descriptive language in their written and verbal comments to their students. Teachers must develop dialogues with their students that foster personal and professional growth. Obviously, the language of assessment must be caring and honest while providing constructive feedback that helps the learner have a clear picture of their academic work.

Critics of alternative assessments raise legitimate concerns about excessive administrative time to prepare and grade assignments. Yet, alternative assessments offer teachers unique opportunities to create relevant work that promotes academic achievement and individualizes the educational process. It is important to help new and veteran teachers become more familiar with alternative assessments through classes, workshops and other professional development activities (Liebers, 1999).

References

Boud, D. (1995). Assessment and learning: Contradictory or complimentary? In P. Knight (Ed.) *Assessment for learning in higher education* (pp. 35-48). London: Kogan Page.

Caffarella, R. S. (1993). Self-directed learning. In S. B. Merriam (Ed.). An update on adult learning theory. *New directions for adult and continuing education*, 57, 25-35. San Francisco, CA: Jossey-Bass

Campbell, D. (2000). Authentic assessment and authentic standards. *Phi Delta Kappan, 81 (5).* 405-408.

Collison, G. Elbaum, B., Haavind, S., & Tinker, R. (2000). *Facilitating online learning: Effective strategies for moderators.* Madison, WI: Atwood Publishing.

Davies, M., Wavering, M. (1999). Alternative assessment: New directions in teaching and learning. *Contemporary Education, 71 (1),* 39-45.

Drake, Frederick (2001). Eric digest: Improving the teaching and learning of history through alternative assessments. *Teacher Librarian, 28 (3),* 32-35.

Huba, M. E. & Freed, J. E. (2000). Learner-centered assessment on college campuses: Shifting the focus from teaching to learning. Boston, MA: Allyn & Bacon.

Liebers, C. S., (1999). Journals and portfolios: Alternative assessment for preservice teachers. *Teaching Children Mathematics, 6 (3),* 164-169.

Muirhead, B. (2001). Learning leadership journal: Handout. Doctor of Management Class, DOC 791. University of Phoenix Online, Phoenix, Arizona.

Palloff, R. N. & Pratt, K. (2001). Lessons from the cyberspace classroom: The realities of online teaching. San Francisco, CA: Jossey-Bass.

Robinson, M. (1995). Alternative assessment techniques for teachers. *Music Education Journal, 81 (*5), 28-34.

Sanders, L. R. (2001). Improving assessment in university classrooms. *College Teaching, 49 (2),* 62-64.

Travis, J. E. (1996). Meaningful assessment. *Clearing House, 69 (5*), 308-312.

Vella, Berardinelli & Burrow (1998). *How do they know they know: Evaluating adult learning.* San Francisco, CA: Jossey-Bass.

Faculty Training at an Online University

Brent Muirhead and Muhammad Betz

Muirhead, B. & Betz, M. (2002). "Faculty training at an Online University." *USDLA Journal*, 16 (1). Available: http://www.usdla.org/html/journal/JAN02_Issue/article04.html

Editor's Note: Drs. Muirhead and Betz have provided two interesting perspectives on the faculty training that occurs in what is undoubtedly one of the most renowned of all online universities, the University of Phoenix. Their separate analyses are detailed and positive. Online faculty training that occurs at UOP is rigorous in discipline, comprehensive in approach and focused on development of competent and aware online faculty.

Preface

This article considers the practice of training faculty candidates to become quality instructors at a well-known, online university. Two perspectives are given: that of a faculty candidate who has just completed the initial, four-week preparatory class and that of a veteran trainer, who has conducted, or facilitated several Training courses.

Part 1-A
Faculty Candidate's Perspective on Training

As a veteran teacher educator who has spent the last ten years preparing undergraduates to use educational technology in America's public schools, I was recently struck by the anomalous situation that I was in. I was preaching educational technology to hundreds of students every year, but had only made one attempt at teaching electronically. Further, in a recent unpublished research study, I found that in the geographical area served by the traditional university where I teach, between 80% to 90+% of new teachers, veteran teachers and school administrators believed that teacher/school administrator preparation courses should be offered online (Betz & Desiderio, 2001).

With the help of a friend who referred me to the University of Phoenix (UOP) Online, I applied for and was accepted into the UOP Online training program for creating "facilitators" of online courses. The intention of this case study is to give readers an inside account of how a major, online university prepares traditional instructors, professors, and teachers to become online facilitators.

Preparations for Online

The preparation to enroll as a faculty candidate in the UOP Online training course was in and of itself a significant step. An application for employment, resume, letters of recommendation, and social security card were submitted. Following notification of acceptance as a faculty candidate, I was notified of the particulars of the full probationary process. First, there was a proficiency test in using Outlook Express. Outlook Express is a free email program that accompanies the popular web browser, Internet Explorer, and in this instance, I received a CD-ROM from UOP that contained both. The Outlook Express proficiency test consisted of an online tutorial that teaches faculty candidates how to configure both email and newsgroup accounts as well as how to use and format email messages.

The next step was to receive a user I.D. and password allowing access to restricted areas of the UOP web site. The UOP Web Site, which, along with Outlook Express, serves as the portal for both students and faculty to conduct business with UOP. Telephones and fax machines are also available for problem situations but are rarely used.

Having received a user I.D. and password, I, like all faculty candidates configured one email account and several newsgroup accounts on the UOP server. The template for offering UOP courses usually includes eight newsgroups. The newsgroups are identified by the course name and the date that the course will begin. Only students listed in the class roster can subscribe to the newsgroups. The newsgroup format works very well within Outlook Express, primarily because of the "preview pane" that allows readers to quickly flip through messages by highlighting message titles in the top viewing pane, while speed reading message contents in the bottom viewing pane. The newsgroup method proved to be much easier to use than web-based, course software, such as WebCT and Blackboard, which require each message to be fully opened and closed.

As implied above, there are two main goals to the training course. The first goal is to prepare faculty candidates to use Outlook Express software skillfully and to communicate effectively. The second goal is related to the context and content of working with an institution of higher education online, including policies and practices, and learning how to create clear, respectful, and engaging communications in an online environment. The purpose of the four-week training course is to provide faculty candidates with the essential qualifications for the next step in the online faculty preparation process, the mentorship. A four week introductory course to the world of online education might be perceived as excessive to a novice administration wanting to provide online courses as quickly and as inexpensively as possible. However, the need for practicing the skills required to facilitate or to teach an online class, to manipulate the online environment, and to master the required skills of communication and interaction cannot be underestimated.

Distance education theoretician, Otto Peters, asserts that distance education is an industrialized form of teaching and learning (Peters, 2001). He implies that distance education must be conducted like the assembly line/mass production

model that requires extensive preparatory work, planning, organization and standardization. Training to become a member of the online faculty at UOP certainly bolsters Peters' view.

Online Ground Rules-Participation

The ground rules for participating in the online training course for UOP Online relate to the concept of *participation*. To pass the training course, candidates are required to officially participate on five of the seven days of each week of the course. Candidates are required to thoughtfully read and respond to course readings, assignments, and discussions, as well as to visibly participate in cooperative learning groups or learning teams. Substantial contributions are required, consisting of several meaningful sentences and/ or coherent paragraphs: one line email messages do not constitute valid participation in the Training course. Candidates who do not register full participation in the training course are usually not allowed to proceed to the mentorship.

Online Ground Rules-Academic Honesty

Every online course syllabus is required to include a section describing what constitutes academic honesty for online students. Students are referred to documentation from many sources that clarify online honesty, such as the use of original words or citations from relevant sources. UOP policy spells out academic dishonesty as having someone other than the student to complete a portion of student assignments; allowing another party to make extensive revisions to an assignment; copying work submitted by another student; or using information from identifiable sources without citations.

Online Ground Rules-Attendance

Online attendance policies are dictated as part of UOP policy. Students are required to post at least one message to one of the course newsgroups on two different days of each week using their UOP email address. According to university policy, not meeting minimum attendance requirements on two weeks of the course will result in automatic withdrawal and ineligibility to receive credit or earn a letter grade. Attendance is taken electronically.

Online Ground Rules-Time

The online week at UOP Online is different from the traditional work week. The first day of the online week is Thursday and the last day is Wednesday. Each day's parameters are construed to be the twenty-four hour time frame within the time zone of the student. The week is so structured to make optimal use of weekend time for online students, who can use ample asynchronous weekend hours to complete the bulk of their scheduled assignments.

In addition to the skewed week, the time to conduct a course is altered. A traditional three hour course, either at the graduate or undergraduate level, has duration of about fifteen weeks. The duration of online courses at UOP is less than half of that, but an online course for either a facilitator or a student is much more than a three-hour per week venture. In fact, one does not seem to be offline except for brief periods. The reading assignments and the writing assignments are indeed commensurate to assignments in a traditional setting. The end effect is that online time is concentrated time, in which more work, and predictably, more learning is required in a condensed period of time.

Online Essentials-Newsgroups

The key to the software logistics of UOP Online Training is the effective use of two components of Outlook Express: email and newsgroups. The traditional use of email is reserved for private communications between students or between the course facilitator and students. The workhorse for online courses is the newsgroups, and every UOP course is configured to use, in default, eight of them. Faculty candidates subscribe to each newsgroup from a designated server according to specific instructions that they receive from UOP technical support via email.

The designated newsgroups for the UOP Online training course are as follows:

Faculty-Training.02-15-01 Group A. Main. This is the main newsgroup for the class, having read-and-write access for candidates and facilitator, which is used to conduct the business communications of the course. The primary function of this newsgroup is to host course-related discussions among the faculty candidates and the facilitator.

Faculty-Training.02-15-02 Group A.-Assignments-(write-only). This newsgroup is used for submitting assignments and can only be viewed by the facilitator. Assignments can be posted as text within email messages or as document attachments to e-messages.

Faculty-Training.02-15-02 Group A. Chat Room. This group is used to discuss informal issues not related to the course.

Faculty-Training.02-15-02 Group A. Course Materials. In this newsgroup the Facilitator posts assignments, lectures, syllabus, and work-related messages. Only the Facilitator can post messages to this group.

Faculty-Training.02-15-02 Group A. Learning Team A. These four newsgroups are used as collaborative work rooms for cooperative learning groups in the course. The cooperative learning groups, called learning teams, are mandatory.

- Faculty-Training.02-15-02 Group A. Learning Team B.
- Faculty-Training.02-15-02 Group A Learning Team C.
- Faculty-Training.02-15-02 Group A Learning Team D.

Finally, in case the faculty candidate cannot access the computer(s) on which he/she has configured Outlook Express, web access is available from the student's UOP portal at the UOP web site.

Online Essentials-Learning Teams

Learning teams are an integral component of all UOP online courses. These teams are established during the first or

second week of the course, with each team assigned to a specific newsgroup as their workroom. Faculty candidates are required to participate in learning teams so that they will know how to work with learning teams when they begin to facilitate courses.

Online Essentials-Faculty Training Course-Content

The faculty training course lasts four full weeks, and candidates are evaluated after completing each week, before receiving one of three summative verdicts: promoted to a Mentorship course, in which they will facilitate their first course for UOP; retained for a second training course; or dismissed from the program. The general content of the four-week course is as follows.

Week One. Orient candidates to the UOP Online philosophy and to the UOP learning model. The importance of online tone as it supports the UOP character is emphasized. Several readings and assignments are included. Particular attention is paid to establishing a collegial ambiance in the course communications. First names are used by students and facilitator, and considerations are fostered that are in alignment with precepts of adult learning (Conner, 1995).

Week Two. Prepare candidates to facilitate on online course for UOP and introduce them to the concept of online learning teams or cooperative learning groups. These groups are a part of every UOP course in accordance with the expressed importance of group interaction and collaboration in distance education (Simonson, et al., 2000). As is the case with many UOP courses, group work is fostered by the requirement of group projects. The planning and production of group projects is conducted within specific "learning team" newsgroups, prior to posting final versions to the Main or Assignments newsgroup.

Week Three. Provide candidates with information needed to facilitate an online course. UOP uses the term "facilitator" to describe instructors, a term that carries many ramifications of meaning for practice. The concept of facilitating learning in online courses is built by the various assignments, including the observation of a current, online course by an expert facilitator. This week highlights a theme emphasized throughout the online training experience of learning by doing and by observing.

Week Four. Provide candidates with information related to evaluating student performance in online courses and to bring closure to the training course. In particular, faculty candidates are trained in the use of the UOP evaluation system, including the assignment of grades.

More specifically, the content of the training course consists of practice: practice in using Outlook Express and the UOP web site; practice in writing course syllabi, lectures, discussion questions, and assignments; practice in monitoring and facilitating online discussions; and practice in the general administration of an online course.

Taking the Faculty Training Course

I took the faculty-training course during February and March of 2001. Each week opened up new vistas of thought related to my role as a professional educator and classroom instructor. At the completion of the course, I reflected, if all online courses could generate the learning that I received in the faculty training course, then the future of online education is a surety.

Part 2-A
Veteran Faculty Member's Perspective on Training

Computer-mediated or online education is becoming more popular among today's students. In 2000, the University of Phoenix (UOP) had an increase of student enrollment of 84%. Currently, 30, 000 online students are taking undergraduate and graduate classes that are facilitated by 2,500 instructors. I work for UOP as the area chair for their MAED program in curriculum & technology, teach online graduate classes, train and mentor faculty candidates and frequently conduct peer reviews of veteran faculty members. Therefore, I have a variety of perspectives on training new faculty candidates.

Training Online Instructors

Faculty Candidates at UOP receive four weeks of training prior to their mentorship. The class provides extensive opportunities for individuals to become familiar with Microsoft's Outlook Express software program that is used for the online classes. The candidates learn about the essence of computer-mediated education by reading relevant lectures, respond to weekly questions and online scenarios, work on team projects, study UOP academic policies and observe online classes. It is an intensive training but candidates appreciate their trainers who share guidance and insights on the teaching and learning process. The class is an essential component in equipping individuals with basic knowledge and skills to facilitate their first online class.

Why does the University of Phoenix place so much emphasis on training their new faculty? Research studies reveal that the quality of online education classes varies considerably due to instructors who fail to provide timely and consistent feedback to their students (Caudron, 2001; Muirhead, 1999). UOP has created training and mentoring process that is designed to help instructors make the transition from the traditional classroom setting to becoming effective online instructors. The university wants to make sure that instructors are well prepared to facilitate online classes. Then, more students will have a positive online experience that promotes high academic standards

The need for training is highlighted by the diversity of tasks that are expected of online instructors. For instance, instructors at UOP will facilitate learning teams in their classes. Moderating the group process requires having the knowledge and skills to effectively promote successful collaboration. Guiding the learning teams requires knowing how to create a setting that engages all participants in sharing online and completing a variety of projects. Collison,

Elbaum, Haavind & Tinker (2000) have listed eight instructor tasks that must performed to foster dynamic small groups:

1. Leading introductory, community-building activities
2. Providing virtual "hand holding" to the digitally challenged
3. Acknowledging the diversity of participants' backgrounds and interests
4. Infusing personality with tone, graphics, and humor
5. Maintaining a nurturing pace of responding
6. Keeping up with the pace set
7. Organizing posts and discussion threads
8. Balancing private email and public discussion (p. 49).

This list of tasks reveals the importance of providing relevant training. The UOP training program for faculty candidates is designed to prepare individuals to be effective online facilitators who can manage an assortment of responsibilities. Bischoff (2000) notes that online instructors are provided instruction in four primary areas:

1. maintain visibility
2. give regular feedback
3. provide high-quality materials
4. remove obstacles to student retention (p. 58).

Trainers assist candidates in the four instructional areas and help them make the transition to working online. A second element in the training process involves the use of mentors who are veteran faculty members. Mentors assist individuals by helping them prepare for their first class by providing advice on how to create a syllabus, lectures, a personal biography and course notes. The mentor will stay with the candidate throughout their first class and offer advice and feedback (i.e. student surveys) by using frequent email notes. The focus of the current discussion will be on the four-week training class.

Faculty candidates learn how to be visible online instructors by doing individual and group assignments that require posting messages to the UOP newsgroups. It is vital that instructors learn how to use their emailed messages to foster a community spirit with their students. A lack of instructor visibility will make students feel deserted or cause them to question whether their really cares about them. For instance, if an instructor always answers student questions by sending their messages to private their mailboxes, the class misses this interaction. Obviously, there are certain questions that need to be handled by private email. Yet, when students post questions in the main newsgroup that is observed by the entire class, it is an excellent opportunity to model interaction for the class (Bischoff, 2000).

As a UOP Trainer, I find that it is useful to model a variety of messages for my faculty candidates. Instructors can use their messages to the newsgroups to demonstrate online presence. Here are five different types of messages that instructors can use:

1. Content-related messages (lectures, handouts, clarification of points in the text, discussion questions, synthesis of discussion)
2. Process-related messages (order of assignments, directions for sending assignments, description of the flow of the class, guidance when students become confused)
3. Technical tips (software tips, information about how to send attachments, discussion of how to format notes, URLs)
4. Protocol guidelines (code of conduct, plagiarism statement, netiquette, online tone)
5. Responses (answers to student questions, feedback on work submitted to the meeting) (p. 60).

During my training classes, I really stress the importance of using messages to personalize the learning experience for students. UOP uses case studies and scenarios that contain common student issues to help candidates learn how to creatively design relevant messages for their students. Faculty candidates often comment on how it is challenging to develop messages that are both professional and personal. Yet, students appreciate instructors who provide timely and specific feedback on their assignments. It can be very frustrating for students when they are not sure of their teacher's expectations. The wise instructor will provide appropriate guidance to both individuals and student teams to keep the class on track for completing the assigned work (Palloff & Pratt 2001).

I encourage my faculty candidates to follow a student centered educational model that promotes the idea of self-directed learning. It is important that instructors empower their students by giving them the opportunity to have enough control to influence the educational process. Obviously, the degree of personal control varies in every learning situation. Teachers give students instructional influence based on factors such as their knowledge of the subject matter and the type of learning assignment.

Computer-mediated education is self-paced and students are given various opportunities to create relevant and interesting work. The distance education format challenges teachers to develop a learning environment that places more responsibility on the student to accomplish academic tasks with minimal teacher assistance. Students are treated as adults who are capable of effectively learning new ideas and academic disciplines (Kasworm & Bing, 1992). It requires having teachers who are willing to experiment with innovative educational methods. It is an open-ended learning model that will bring some anxious moments to the best online teachers.

Conclusion

The University of Phoenix has created a training program to meet the needs of today's instructors. Contemporary educators and administrators need to explore relevant ways to educate new and existing faculty members to the online learning environment. Instructors vary in their level of online experience; therefore their facilitator skills must be supported and encouraged through formal and informal professional development activities. A good training program will affirm high academic standards while helping instructors create friendly and dynamic online learning communities
(Palloff & Pratt, 1999)

References

Betz, M., & Desiderio, M. (2001). Educational technology in teacher education: 2001. Unpublished research.

Bischoff, A. (2000). The elements of effective online teaching: overcoming the barriers to success. In (K. W. White & B. H. Weight (Eds.), *The online teaching guide: A handbook of attitudes, strategies, and techniques for the virtual classroom.* Boston: Allyn & Bacon.

Caudron, S. (2001). Evaluating e-degrees. *Workforce*, 80 (2), 44 -47.

Collison, G., Elbaum, B., Haavind, S. & Tinker, R. (2000*). Facilitating online learning: Effective strategies for moderators*. Madison, WI: Atwood.

Conner.M. (1996). Learning: The critical technology, a whitepaper on adult education in the information age. Wave Technologies International, Inc. (retrieved online at: http://www.wavetech.com/abt/abttmwp.htm).

Fullmer-Umari, M. (2000). Getting ready: The syllabus and other online indispensables. In K.W. White & B. H. Weight (Eds.) *Online teaching guide: A handbook of attitudes, strategies, and techniques for the virtual classroom* (pp. 57-72). Needham Heights, MA: Allyn & Bacon.

Kasworm, C. E. & Bing, Y. (1992). *The development of adult learner autonomy and self-directedness in distance education*, Report No. CE 063 391, Springfield, VA: DYNEDRS (ERIC Document Reproduction Service No.ED 355 453).

Muirhead, B. (1999). Attitudes toward interactivity in a graduate distance education program: A qualitative analysis. Parkland, Fl: Dissertation.com.

Palloff, R. M. & Pratt, K. (2001). Lessons from the Cyberspace Classroom: The realities of online teaching. San Francisco: Jossey-Bass.

Palloff, R. M., & Pratt, K. (1999). Building learning communities in cyberspace: Effective strategies for the online classroom. San Francisco: Jossey-Bass.

Peters, O. (1998). *Learning and Teaching in Distance Education.* Sterling, VA: Stylus Publishing Inc.

Simonson, M., Smaldino, S., Albright, M., & Zvacek, S. (2000). *Teaching and learning at a distance: Foundations of distance education.* Upper Saddle River, NJ: Prentice-Hall, Inc.

Online Resource Page: Using Technology to Enhance the Teaching and Learning Process

Brent Muirhead, Jane McAuliffe and Marla La Rue

Muirhead, B. McAuliffe, J. & La Rue, M. (2001). "Online Resource Page: Using Technology to Enhance the Teaching and Learning Process." *Educational Technology & Society* 4(4), Available: http://ifets.ieee.org/periodical/vol_4_2001/discuss_summary_august2001.html

Pre-discussion paper

Introduction

Today's computer-mediated or online administrators and instructors are investigating ways to foster a dynamic learning environment. Currently, "Internet technology empowers the joint exploration of the delivery mechanisms of previous generations, adding stronger collaborative learning elements (Passerini & Granger, 2000, p. 3)." Contemporary Internet technologies are helping remove the idea of distance from online education. The online teaching and learning process could produce more relevant and consistent interaction than what is produced in the traditional undergraduate classrooms. A large traditional classroom does create communication barriers that make it more difficult for all students to participate in class discussions. It is interesting that university students are using emails more often to share with their classmates and teachers. The Internet is providing a practical way to remove learning barriers and encourage greater access to intellectual resources. The idea of distance education has fostered the pursuit of new educational paradigms that encourage online education to be more personal and student centered.

A major concern among academic officials has often focused on the quality of educational experiences within an online class. Carnevale (2000) relates that research studies indicate that the essential features of a good course include "interaction between instructors and students, a student-centered approach and built-in opportunities for students to learn on their own (p. A46)." Creating and sustaining a quality online degree program is a challenging venture. There are a variety of factors that can have either a positive or negative impact on the online educational setting:

- the level of expertise of the online faculty (technical & online experience),
- the degree of administrative financial support,
- the technological infrastructure the of school,
- student support system to handle academic and computer related issues
- the depth and quality of faculty training and professional development programs (Cooper, 2000).

Resource Overview

A challenging problem for distance education systems is how to provide a large number of students, across diverse geographical areas, with consistent materials and resources that will ultimately allow them to achieve their personal and professional goals. This will require a change in the way technology is used in schools (Grabe, 1998). In order to address this problem, one university has eliminated the need for all "hard-copy materials" by developing an online "resource page" for students and faculty. Instead of buying a textbook at the beginning of a course, students will pay a r*e*source access fee that will make available their learning resources for their entire academic program.

In recognition of the fact that all students have unique learning styles, the University of Phoenix Online will soon begin the implementation of eResource™, an exciting new product and the new standard for delivery of student and faculty materials. This product is a set of learning tools that are designed and presented in a variety of modalities in order to meet the needs of all learners. These materials will be delivered via the Student and Faculty Web on a course-by-course basis. To facilitate this strategic initiative, the university is partnering with a variety of publishers to provide content and other ancillary services. UOP currently has partnership arrangements with Thomson Learning, Pearson Publishing, McGraw Hill, Course Technology, and John Wiley. Today, the University of Phoenix Online has 26, 000 students enrolled in their classes and 2100 faculty members.

The resource page is not only an "e-Book" – it is a collection of electronically delivered learning resources, (one element of which is an "e-text") which are closely aligned to the course objectives. These collections can be differentiated as visual databases, multimedia libraries and more (Barron, 1994). For example, instead of a textbook with perhaps, 20 chapters from which reading assignments would be chosen for assigned reading, the instructor can assign the specific portions of the e-text of their resource page to correspond with the number of class meetings or workshops and the material will relate specifically to the learning objectives. PowerPoint presentations that correspond to the course objectives, as well as self-assessments, multimedia activities and current articles from the digital library will be available. This allows each faculty member to maintain more distinct focus on course or workshop objectives. Additionally, students will have access to their entire "reference library" of university materials from their desktop or laptop and will be able to access their library (with automatic updates) as alumni.

Resource Page: Detailed Descriptions

University of Phoenix Courses will contain the following materials as part of this new initiative. Please note a snap shot of resource page on page 6.

UniModule

The UniModule is the recommended curriculum for a given course; it is developed in a format that provides course guidance for instructional training, whether conducted in the classroom, online, or in a directed study format. This document contains course topics, objectives and assignments, as well as a content outline for instructors. Faculty members have the flexibility to make modification to the curriculum, as long as they adequately address specific course objectives as outlined in the UniModule. In doing so, the University ensures that course content is consistently delivered to students across all campuses.

E-Text

The e-text is the selected "textbook" for each course. In some cases, this material is simply an electronic copy of an existing textbook; in other cases, the e-text is a compilation of material from multiple sources, including chapters from several textbooks, associated selected readings and other printed materials. Students view this material using Microsoft® Reader or by printing all or part of the text from their personal computers.

Supplemental Materials

Information contained in this link will vary from course to course. It may contain course-specific Power Point presentations, assessment tools, case studies, unique learning activities, topic-specific tutorials, video clips and more.

Articles

Each course comes with a set of selected readings, which are a compilation of journal articles and other scholarly literature from the University's Online Collection. These articles have been specially selected by course developers to supplement the readings in the E-text and to further ensure students are prepared to meet the course objectives.

Web Links

Each course will also have 2-5 associated web links. These links direct students to areas on the web that will further enhance their professional development. Typically, students will explore the sites of professional associations, other related organizations and sites that encourage professional collaboration and/or community involvement.

Multimedia

The University has partnered with several companies to allow students to develop ancillary skills that will further facilitate their learning. In this section, students are provided with a variety of tutorials, from novice to advanced levels, designed to enhance their technological and professional skills. Examples of online tutorials available to students are: Windows, Word, Power Point, Access Excel, and more.

Services

University Library

The Online Collection, the most popular part of the Library Web Site contains databases with millions of full text articles, documents, reference sources, directories, and financial data. Students may use the Online Collection to obtain direct access to subscription resources not normally found through Internet search engines. In addition to the subscription databases in the Online Collection, there are also many helpful Web sites for research available at no cost on the World Wide Web.

Writing Lab

The University's Virtual Writing Lab is a free service, offered to all students. The "lab" is actually an email address where students can send their written materials (papers, projects, etc.) to be reviewed by qualified University of Phoenix faculty members and receive feedback. The lab is not an editing service. Faculty will not revise student papers. Rather, they will review work and give detailed feedback on how to improve specific papers, and on writing style in general. Feedback will focus on format, grammar, organization, punctuation, and usage, but not course content. Currently, the writing lab is receiving over 4,000 papers a month from students seeking assistance.

Proficiency Assessments

The Skills Enhancement Center contains math, critical thinking and English tutorials. Each tutorial contains instructional material, learning questions, quizzes, and practice exams. This material will assist students in preparing for their proficiency exams.

The Testing Center contains the official math, critical thinking and English proficiency exams. Students are required to take one or more of these assessments, depending on specific program requirements. Tests are available online and students receive immediate feedback upon completion of the exams.

Program Specific

Program Handbook

Program handbooks contain program specific information for students, including program sequence, course descriptions, gradation requirements, etc. This "virtual" document replaces the traditional hard-copy books previously supplied to students upon enrollment.

Downloads

This section provides students with free downloads for the following resources:

- Microsoft® Reader
- Adobe® Acrobat® Reader®
- Internet Explorer

Electronic Portfolio (Education Programs)

This is a link to the students' individual electronic portfolios. This dynamic site represents a teacher's continuous progress and development throughout his/her

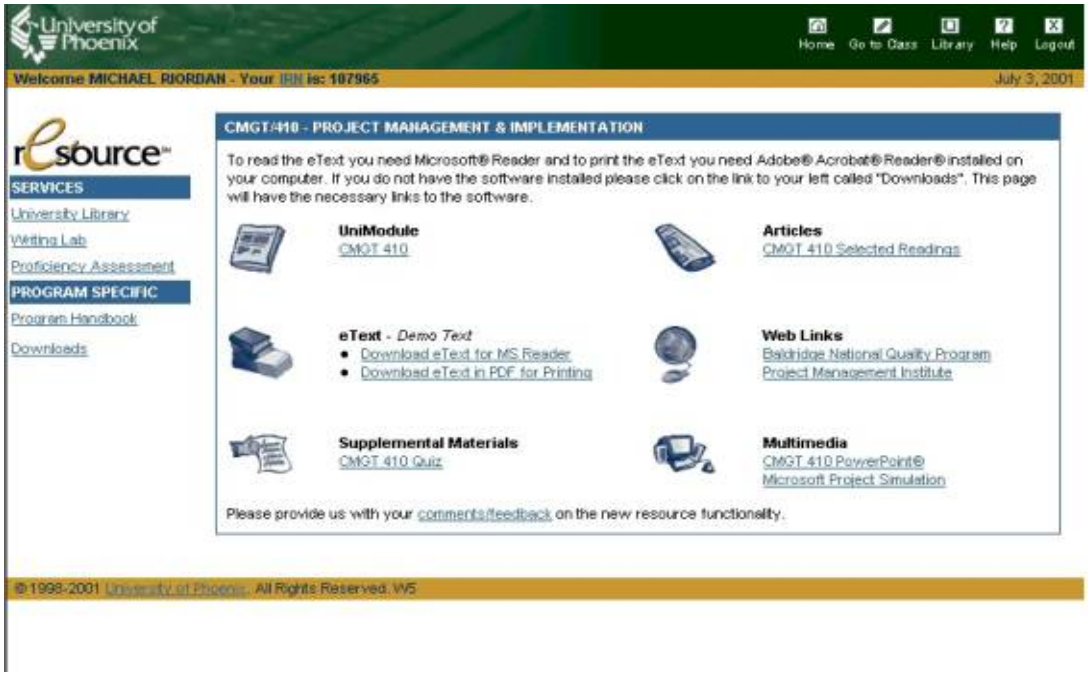
program and career. Elements of the portfolio are designed to ensure that students meet state, national, and program standards and are evaluated using formative and summative methods. This tool is introduced during the first course and reinforced by faculty in each course.

Teachers also post their Teacher Work Sample Project in this portfolio. This product is a 4 week, standards-based unit that include the following elements:

- Unit learning goals
- Contextual information
- Content
- Assessment plan
- Pre-assessment analysis
- Design for instruction
- Description of two featured students
- The instructional process of the two, featured students
- Analysis of learning results
- Reflection on teaching and learning

Teacher Preparation Accountability

The resource page seeks to address teacher preparation accountability issues involving computer-mediated instruction. Therefore, the resource page will house performance assessment pieces of their teacher preparation program: electronic portfolios and teacher work samples. The University's teacher work sampling model is based on work done by the Renaissance Partnership for Improving Teacher Quality (adapted from Pokay, P., Langer, G., Boody, R., Petch-Hogan, B. and Rainey, J., Renaissance Partnership for Improving Teacher Quality and Western Oregon's Teacher Work Sample, 2001). The teacher work sampling is infused in applicable University programs that focus on Pre K-12 classrooms.



This model suggests that successful teachers:

- Support students' acquisition of substantive learning by designing units of instruction that employ a range of strategies that build on each students' strengths, needs and prior experiences.
- Align learning goals with state and district content standards.
- Adjust the classroom environment and instruction to address important contextual characteristics of the classroom.
- Employ a variety of instructional resources to help students attain learning goals and to offer them new opportunities to explore important ideas or to learn new skills that have relevance to their lives.
- Use multiple assessment methods that appropriately measure learning gains towards the selected goals.
- Explore students' understanding and thinking processes while evaluating the effectiveness of their teaching.
- Analyze student learning by examining individual, small group, and whole class achievement.
- Use their analysis of student assessment to guide instruction, to provide feedback to students, and to plan for professional development.
- Provide credible evidence of their instructional effectiveness through student performance (Pokay, et al, 2001).

This area of the resource page will allow students to document how and when they meet the program standards. Additionally, it will offer data for faculty, administration and accrediting organizations with an opportunity to regularly

evaluate student performance and examine program effectiveness (D'Ignazio, 1996). Instructors can monitor student achievement to insure that the course materials are closely aligned with the course objectives. Ultimately, a variety of resources will promote individualized instruction for a diversity of student learning styles and encourage optimal learning experiences

Conclusion

The creation of the electronic resource page is intended to foster a dynamic learning climate. It ensures that students will have access to diverse and a larger number of information resources. Online instructors can insure that students have access to the same materials that are tailored to specific course objectives. Yet, teachers can use their subject knowledge to creatively add materials such as PowerPoint presentations or video streams. The eSource has real potential to individualize online instruction and promote rich educational experiences that are relevant for today' students. Our discussion of the online resource page will involve discussing a variety of educational issues:

1. What are the advantages and disadvantages of e-books?
2. How does the eSource influence the classroom learning environment?
3. How can today's instructors use the eSource to enhance online interaction?

References

Baron, A., Breit, F., Boulware, A. & Bullock, J. (1994).*Videodiscs in education: Overview, evaluation, activities* (2nd Ed.), Tampa, FL: University of South Florida.

Carnevale, D. (2000). Study assesses what participants look for in high-quality online courses. *Chronicle of Higher Education,* 47 (9), A46.

Cooper, L. (2000). Online courses. *THE Journal,* 27 (8), 86-92.

D'Ignazio, F. (1996). Restructuring knowledge: Opportunities for classroom learning in the 1990's. *Computing Teacher*, 18 (1), 22-25.

Grabe, M. & Grabe, C. (1998). *Integrating technology for meaningful learning*, Boston, MA: Houghton Miffin.

Passerini, K. & Granger, M. J. (2000). A developmental model for distance learning using the Internet. *Computers & Education*, 34 (1), 1-15.

Pokay, P., Langer, G., Boody, R., Petch-Hogan, B. & Rainey, J. (2001). Exploring a way for teacher candidates to demonstrate student learning. *Paper presented at the 81st Annual Conference of Teacher Education,* Feb. 17-21, 2001, New Orleans, Louisiana.

Post-discussion Summary

The discussion of the online resource page occurred on the IFETS discussion list from August 27, 2001 to September 7, 2001. The dialog began by focusing on three basic questions:

- What are the advantages and disadvantages of e-books?
- How does the Resource influence the classroom learning environment?
- How can today's instructors use the Resource to enhance online interaction?

Discussion participants explored the potential advantages and disadvantages of the new resource page that has been developed by the University of Phoenix. Ultimately, the goal of the new initiative was to enhance the online teaching and learning process. It is designed to be a place that will provide instructional resources for a variety of educational needs. For instance, the resource page has foundational articles that are tied to the course objectives. Yet, instructors have the freedom to use their subject expertise to add articles and other instructional resources for their students. Perhaps, it is better to view the resource page as a fluid document that has foundational materials but it is much more than just a set of e-books.

What are some of the concerns and observations about the resource page?

- Debate over the educational effectiveness of using e-books (ex. Access issues).
- Whether the resource page design will help stimulate relevant interaction with the course material and with other learners.
- Instructional design issues involving the costs involved in creating an educational setting to effectively use the resource page.
- The importance of having qualified online instructors.
- The need for more research and the willingness of innovators to listen and learn from constructive criticism of their work to encourage academic collaboration and improve online instructional resources.

The discussion highlighted the importance of having trained teachers who are effective at facilitating online classes. It is vital that today's online instructors possess expertise in academic content areas and have the interpersonal skills that enable them to work effectively with a diversity of students. An effective facilitator will be able to create a friendly and intellectually challenging

class that has lively dialog and relevant assignments that reflect high academic standards. The discussion moderator described the performance indicators that are often found in good online facilitators.

Performance Indicators

- The facilitator interacts on a regular basis with their online class.
- Provides a detailed syllabus and weekly instructional updates on class work.
- Messages are clearly written formatted properly and reflect appropriate spelling & grammar.
- Uses personal & professional examples to stimulate discussion.
- Writes with good online tone (friendly, polite & professional).
- Interacts effectively with a diversity of students and works with lurkers.
- Responds to student questions in a timely (within 24 hours) and consistent manner.
- Demonstrates excitement/enthusiasm about the teaching and learning process.
- Monitors student learning groups and encourages collaboration.
- Builds upon student comments in a constructive way and uses creative prompts when necessary (ex. posts additional questions to help sustain and energize their dialog).
- Keeps the class focused on discussion questions & assignments.
- Provides timely and consistent feedback by carefully explaining grades and offering specific, detailed and constructive comments on papers.

The resource page provides teachers with instructional resources that can help them promote deeper learning experiences. Instructors can offer supplementary materials that will enable them to meet the needs of students who possess different learning styles. Ultimately, online educators still hold the keys to making the online experience enjoyable for students. Spitzer (2001) relates that "the missing link in Rosset's DL experience was not the technology, but the lack of a human mediator who could provide the things that technology could not: relevance, personalization, responsiveness, and flexibility (pp. 51-52)." Research studies into interactivity in graduate education schools reveals that students want timely and consistent feedback. Students want personal attention from their instructors. It takes dedicated and effective facilitators that are frequently online to meet student needs. Traditional teachers sometimes have difficulty making the transition to working in the online environment. Being a good facilitator is a very challenging job and it is often far more demanding than traditional teaching (Muirhead, 2001).

The resource page offers students a variety of learning options that can individualize their educational experiences and make them more relevant. The student-centered model of learning encourages teachers to view their students as academic partners who work together to produce relevant and meaningful learning experiences. It requires educators who are willing to change their standard teaching methods. Boud (1995) related "they will need to become researchers of student perceptions, designers of multifaceted assessment strategies, managers of assessment processes and consultants assisting students in the interpretation of rich information about their learning" (p. 42).

The student-centered learning model challenges teachers to carefully use descriptive language in their written and verbal comments (phone conversations) to students. Teachers must develop dialogues with their students that foster personal and professional growth. Unfortunately, some professors, through attitude and verbal and written comments, treat their students as subordinates (Hawley, 1993). Obviously, the instructor's language must be caring and honest while providing constructive feedback that helps the student to have a clear picture of their academic work.

Conclusion

The discussion of the resource page reveals the need for distance education schools to carefully select and train instructors for their online classes. The resource page has the potential to enhance the learning process. Yet, it requires having qualified instructors to effectively use it.

Also, the University of Phoenix realizes that it is a creative initiative that requires time to experiment with teachers and students. The university is using conferences and Internet discussions as vital opportunities to obtain feedback to improve the resource page. For instance, students might want to have the option to use both textbooks and e-books in their classes. The discussion participants provided excellent insights that will be useful in the on-going evaluation of the resource page. In the future, the school hopes to share a prototype for those interested in using the resource page for their organizations.

References

Boud, D. (1995). Assessment and learning: Contradictory or complimentary? In P. Knight (Ed.) *Assessment for learning in higher education*, London: Kogan Page, 35-48.

Hawley, P. (1993). Being bright is not enough: The unwritten rules of doctoral study, Springfield, IL: Charles Thomas.

Muirhead, B. (2001). Practical Strategies for Teaching Computer-Mediated Classes. *Educational Technology & Society* 4 (2), 1-12.

Spitzer, D. R. (2001). Don't forget the high-touch with the high-tech in distance learning. *Educational Technology*, 51 (2), 51-55.

Training & Mentoring Faculty Candidates for the University of Phoenix

Brent Muirhead

Muirhead, B. (2001). "." *Learning Technology*, 3(4). Available:
http://lttf.ieee.org/learn_tech/issues/october2001/index.html

Introduction

As distance education schools offer more undergraduate and graduate degree programs, more individuals are exploring the possibility of taking Internet classes. Computer-mediated or online education is becoming more popular among today's students. In 2000, the University of Phoenix (UOP) had an increase of student enrollment of 84%. Currently, 30, 000 online students are taking undergraduate and graduate classes that are facilitated by 2,500 instructors. The writer works for the University of Phoenix as the area chair for their MAED program in curriculum & technology, teach online graduate classes, trains and mentors faculty candidates and conducts peer reviews of veteran faculty members.

Training and Mentoring Online Instructors

Faculty candidates at UOP receive four weeks of training prior to their mentorship. The class provides extensive opportunities for individuals to become familiar with Microsoft's Outlook Express software program that is used for the online classes. The candidates learn about the essence of computer-mediated education by reading relevant lectures, respond to weekly questions and online scenarios, work on team projects, study UOP academic policies and observe online classes. It is an intensive training but candidates appreciate their trainers who share guidance and insights on the teaching and learning process. The class is an essential component in equipping individuals with basic knowledge and skills to facilitate their first online class.

The UOP training program for faculty candidates is designed to prepare individuals to be effective online facilitators. Bischoff (2000) notes that online instructors are provided instruction in four primary areas:

1. maintain visibility
2. give regular feedback
3. provide high-quality materials
4. remove obstacles to student retention (p. 58).

Trainers assist candidates in the four instructional areas and help them make the transition to working online. A second element in the training process involves the use of mentors who are veteran faculty members. Mentors assist individuals by helping them prepare for their first class by providing advice on how to create a syllabus, lectures, a personal biography and course notes. The mentor will stay with the candidate throughout their first class and offer advice and feedback (i.e. student surveys) by using frequent email notes.

Create a Detailed Class Syllabus

A good lecture is concisely written document that should affirm course objectives while personalizing the online experience. Bischoff (2000) recommends that lectures should "draw on text readings, work experience, and outside sources, the online instructor crafts a thought-provoking and polished piece based on the theories covered in the assigned readings (p.67)."

Instructors can promote student interaction by developing a detailed syllabus with clear instructions for their online students and offering them a time management device to integrate schoolwork into their busy daily lives. Also, the syllabus plays a vital role in helping students understand the teacher's expectations and establishes a foundation for positive learning experiences. The syllabus requires special attention because instructors need to effectively share their content expertise. Fullmer-Umari (2000) a faculty member at the University of Phoenix recommends that teachers should consider using seven key elements in their syllabus:

1. Course description and overview of subjects covered during the class
2. Teacher' biographical sketch that highlights both professional and personal experiences
3. Teacher contact information (e-mail addresses and telephone numbers)
4. Assignment schedule for each week of the course (papers, readings, etc.)
5. Review of university/class policies for attendance, grading, participation, late assignments, tests and specific details on academic honesty.
6. Request for student biographical sketches to be e-mailed to a class online newsgroup
7. Discuss frequently asked questions about assignments and computer problems.

The syllabus does help bring structure and sets the tone to the online educational setting. Adult learners appreciate having a detailed syllabus because it gives them a sense of security and enables them to direct their studies. Yet, it is important online classes should give individuals the opportunity to have enough control to influence the educational process. Obviously, the degree of personal control varies in every learning situation. Teachers give students instructional influence based on factors such as their knowledge of the subject matter and the type of learning assignment. Computer-mediated education is self-paced and students are given various opportunities to create relevant and interesting work. The distance education format challenges teachers to develop a learning environment that places more responsibility on the student to accomplish academic tasks with minimal teacher assistance. Students are treated as adults who are capable of effectively learning new ideas and academic disciplines (Kasworm & Bing, 1992). It requires having teachers who design relevant lesson plans and are willing to experiment with innovative educational methods. It is an open-ended learning model that will bring some anxious moments to the best online teachers.

Conclusion

Administrators need to explore relevant ways to educate new and existing faculty members to the online learning environment. Instructors vary in their level of online experience; therefore their facilitator skills must be supported and encouraged through formal and informal professional development activities. A good training and mentoring program will affirm high academic standards and help instructors create friendly online learning communities (Palloff & Pratt, 1999).

References

Bischoff, A. (2000). The elements of effective online teaching: overcoming the barriers to success. In (K. W. White & B. H. Weight (Eds.), The online teaching guide: A handbook of attitudes, strategies, and techniques for the virtual classroom. Boston: Allyn & Bacon.

Fullmer-Umari, M. (2000). Getting ready: The syllabus and other online indispensables. In K.W. White & B. H. Weight (Eds.) Online teaching guide: A handbook of attitudes, strategies, and techniques for the virtual classroom (pp. 57-72). Needham Heights, MA: Allyn & Bacon.

Kasworm, C. E. & Bing, Y. (1992). The development of adult learner autonomy and self-directedness in distance education, Report No. CE 063 391, Springfield, VA: DYNEDRS (ERIC Document Reproduction Service No.ED 355 453).

Palloff, R. M., & Pratt, K. (1999). Building learning communities in cyberspace: Effective strategies for the online classroom. San Francisco: Jossey-Bass.

Practical Strategies for Teaching Computer-Mediated Classes

Brent Muirhead

Muirhead, B. (2001). "Practical Strategies for Teaching Computer-Mediated Classes". *Educational Technology & Society*, 4(2). Available: http://ifets.ieee.org/periodical/vol_2_2001/ discuss_summary_jan2001.html

Pre-discussion Paper

Introduction

he rapid growth of computer-mediated schools has created a need for more teachers. Often, the new teachers enjoy taking on new challenges and bring a "pioneer" attitude with them. It helps to be a visionary when tackling new educational problems such as creating lectures that have substance and are interesting for students to read. A real problem is that the literature on teaching online is just developing and sometimes people are forced to speculate on particular teaching and learning problems due to the absence of research studies.

Yet, contemporary learners often have legitimate instructional needs and vary greatly in their academic abilities. Hannafin, Land, and Hill (1997) related concerns that most learners lack the substantial self-monitoring skills that distance education requires. They recommended that students need more academic support from their peers and teachers. Learners must be empowered through thoughtful interaction to acquire the necessary skills to effectively work in an open-ended environment. Distance education places fewer restrictions on learners (e.g. often no set time to learn), and learners must take greater responsibility for their educational experiences. Frequently, learners are under major time constraints with work and family obligations and being efficient with their graduate studies is an important issue.

My discussion will begin with a brief overview of several important philosophical principles that offer a foundation for the online teaching and learning process. Then, the discussion will focus on strategies and principles that will help online teachers to be creative and effective teachers.

Distance Education: Some Philosophical Observations on the Teacher's Role

Teachers realize that computer-mediated education requires developing a new contemporary vision of learning. Adult educators such as Sherry (1996) affirm a new teaching and learning model that stresses student-centered instruction. Ultimately, it will demand changing the traditional role of teachers from information transmitters to guides who arrange meaningful learner-centered experiences (Salomon, 1992). The term education describes a teaching and learning concept that transcends just merely sharing factual information. It assumes that a capable teacher will know where he or she is going (goal-oriented). The wise teacher seeks to guide his/her students toward greater maturity, preparing them to effectively adapt to a rapidly changing world (Cantor, 1996).
As educators refine their philosophy of distance learning, they are concerned about sustaining interactivity in their educational process. Today's adult learning theories are built upon the premise that teachers will assist their students to become self-directed and independent. Learners must assume responsibility for their educational experiences, but independent study has natural limitations. If learners do not receive adequate teacher feedback and reinforcement, students will not always know whether they possess an accurate knowledge of their subject matter. A primary goal of adult education is to promote self-directed attitudes and behavior while discouraging excessive dependency upon the instructor (Milheim, 1993).

The facilitator model is based on rigorous academic standards and expectations, requiring educators who are capable of equipping students to be independent learners. Teachers are still considered knowledge experts who have a clear understanding of their subject matter. Yet, their new role involves promoting more self-directed learning activities that cultivate achieving knowledge objectives through personal study. Teachers are challenged to carefully design instructional activities that guide their students into on-line learning situations that promote personal acquisition of knowledge. Teachers strive to encourage positive learning habits that foster both self-directed learning styles and genuine collaboration with other classmates. It requires planning creative on-line instructional assignments that intellectually stretch their students but does not confuse or overwhelm them. For instance, teachers should not consider sharing a lecture transcript unless there were specific questions and class discussion that supported the reading of their lecture material. Mason and Kaye (1990) stated "that information should be designed for a particular medium to best exploit its unique advantage (p. 16)."

Distance educators view computer-mediated education as an excellent format to encourage a variety of adult learning styles while serving an ethnically diverse student population. Genuine interactivity (communication, participation and feedback) should empower learners to cultivate both self-directed instructional skills and develop enriching dialog with other students. The issue of interactivity is a vital issue for teachers as they seek to create class work that promotes lively academic dialog and cultivates critical thinking skills. My interactivity research (Muirhead 1999) highlighted the fact that the quality of interactivity varies among distance education classes. A major problem involved students not receiving adequate feedback from their teachers. In fact, today's distance educators are developing a new set of terms to describe the learning problems in virtual classes. The word *cyberia*

refers to "a place to which online students feel they have been regulated when they receive no feedback from their instructor (Jargon Monitor, 2000, p. A51)."

Create a Detailed Class Syllabus

Distance educators can promote student interaction by developing a detailed syllabus for their classes. It will provide clear instructions for their online students while offering them a time management device to integrate school work into their busy daily lives. Also, the syllabus plays a vital role in helping students understand the teacher's expectations and establishes a foundation for positive learning experiences. Fullmer-Umari (2000) a faculty member at the University of Phoenix recommends that teachers should consider using seven key elements in their syllabus:

1. Course description and overview of subjects covered during the class
2. Teacher' biographical sketch that highlights both professional and personal experiences
3. Teacher contact information (e-mail addresses and telephone numbers)
4. Assignment schedule for each week of the course (papers, readings, etc.)
5. Review of university/class policies for attendance, grading, participation, late assignments, tests and specific details on academic honesty.
6. Request for student biographical sketches to be e-mailed to a class online newsgroup
7. Discuss frequently asked questions about assignments and computer problems.

The syllabus does help bring structure and sets the tone to the online educational setting. Adult learners appreciate having a detailed syllabus because it gives them a sense of security and enables them to direct their studies. Livengood (1987) has stressed that online classes should give the learner the opportunity to have enough control to influence the educational process. Obviously, the degree of personal control varies in every learning situation. Teachers give students instructional influence based on factors such as their knowledge of the subject matter and the type of learning assignment. Computer-mediated education is self-paced and learners are given various opportunities to create relevant and interesting work. The distance education format challenges teachers to develop a learning environment that places more responsibility on the student to accomplish academic tasks with minimal teacher assistance. Students are treated as adults who are capable of effectively learning new ideas and academic disciplines (Kasworm & Bing, 1992). It requires having teachers who design relevant lesson plans and are willing to experiment with innovative educational methods (i.e. on-line quizzes). It is an open-ended learning model that will bring some anxious moments to the best online teachers.

Moderating Online Discussions

Educators who are used to having a tightly controlled classroom might feel somewhat uncomfortable monitoring online discussion forums. The discussion format has an unpredictable dimension that makes student-centered learning dynamic but less easy to control. Teachers appreciate the lively debates that characterize most online classes. Frequently, learners offer thought-provoking dialogue because they have time to reflect on the posted comments before sharing their thoughts (Lewis, Treves, & Shaindlin, 1997).

Instructor-guided interaction during the course provides tutors with useful student information that can help instructors get a clear picture of learner needs. The first week of the on-line course is a good time for learners to share with their classmates and teacher their personal and professional backgrounds. Teachers can use the data to refine their learning objectives, assignments, and discussion forums questions to better meet adult learning needs (Rowntree, 1995).

Educators need to be creative in moderating online discussions because every class contains a unique set of individuals who respond differently to the operating in the online environment. For instance, how do you handle lurkers? Sometimes, writers have been somewhat critical of lurkers because of their apparent lack of involvement. In reality, lurkers are learning from the online classes just by reading online postings and communicating privately with other students. Still, it can be frustrating for distance educators to have several people who are not taking full advantage of their learning opportunities. Salmon (2000) offers superb insights from her action research studies on Computer Mediated Conferencing (CMC) at the Open University (United Kingdom). Her findings were based on a combination of content analysis of online communication of students and teachers, focused group work and testing and evaluation of a new teaching and learning model. Solmon provides seven relevant suggestions for helping teachers working with lurkers:

- Check that all participants know how to post and 'reply' to messages.
- Give participants plenty of time to become used to the online environment before insisting that they post their responses.
- Check that you have a free-flowing or social conferencing area.
- Try some humor rather than anger (e.g. don't be a lurker – be a worker)
- Check whether one or two individuals are dominating the conference – deal tactfully with them to create a more open and equal environment.
- Provide a structured evaluation questionnaire or an area for reflections and/or comments (some lurkers prefer safety in structure).
- Allocate active participants to lurkers as mentors (pp. 136-137).

Authentic Assessment

Authentic evaluation requires serious reflection that views the teaching and learning process as being dynamic and somewhat fluid. If educators are serious about promoting self-directed learning, then their assessment philosophy should reinforce the importance of giving students opportunities to influence evaluation. A comprehensive picture of evaluation must include student perceptions

because they can provide insights into individual testing instruments, term papers, and online class discussions. Learner observations are valuable for gaining a good perspective on the total educational experience. Educators can use a variety of evaluation formats (formative and summative) that offer opportunities to improve the teaching and learning process. Instructors can use telephone calls and e-mail messages to individual learners as excellent ways to cultivate informal feedback that can be used to make immediate course changes. Interactivity is enhanced when teachers ask students open-ended questions that enable learners to share their perspectives about the quality of their educational experiences (Wellspring, 1999). For instance, students might have concerns about the length of discussion posting and what constitutes mastery of the subject matter (Nunn, 1998).

The student-centered model of learning encourages teachers to view their students as academic partners who work together to produce relevant and meaningful learning experiences. It requires professors who are willing to change their standard teaching methods. Boud (1995) related that "they will need to become researchers of student perceptions, designers of multifaceted assessment strategies, managers of assessment processes and consultants assisting students in the interpretation of rich information about their learning" (p. 42).

A holistic emphasis on evaluation challenges teachers to become more flexible in their instructional plans and to consider alternative evaluation methods. Educators need to take a fresh look at instructional procedures that help them "approach non-traditional problems in nontraditional ways" (Willis, 1998, p. 58). Unfortunately, some educators are complacent about their professional growth or resist making instructional changes. Yet, teachers do have a professional responsibility to implement innovative assessment techniques into their teaching practices (Dalin, Rolff, & Kleekamp, 1993).

The student-centered learning model challenges teachers to carefully use descriptive language in their written and verbal comments (phone conversations) to students. Teachers must develop dialogues with their students that foster personal and professional growth. Unfortunately, some professors, through attitude and verbal and written comments, treat their students as subordinates (Hawley, 1993). Obviously, the language of assessment must be caring and honest while providing constructive feedback that helps the learner have a clear picture of their academic work.

Teachers are challenged by the task of evaluating on-line learner responses that are personally relevant and affirm course learning objectives. Interactivity should promote effective instructional feedback that helps learners be informed about the quality of their work (Wagner, 1994). Educators recommend that tutors offer a diversity of feedback comments that are both informational (e.g. quality of performance) and motivational for students. Educators must integrate social interaction during their class actives that affirms active participation and self-directed learning (Milheim, 1995; Wagner, 1997).

Distance education literature reveals that instructors are just beginning to develop new assessment procedures. The absence of formal evaluation guidelines places greater responsibility on each teacher to create their own authentic assessment instruments. Students expect personal and informative feedback on their online discussion comments and term papers (Hodges & Hodges, 1998; Kearsley, 1998).

In my online teaching, students have related that they appreciate having my grading rubric before doing their group projects and individual papers. The following is an example of a basic rubric:

- Title Page (title of paper, complete name of student, name of course, teachers' name & date submitted) Introduction (sets up discussion for reader) & Conclusion (provides summary & closure)

- Reference Page (complete bibliographic information using APA style guide & use APA format within paper)

- Vary sentence length /correct spelling of terms
- Demonstrates a clear focus (organization)
- Demonstrates critical analysis of subject matter
- Demonstrates relevance to profession

Cultivating Critical Thinking Skills

A major challenge to distance educators is to create assignments and online discussions that foster critical thinking skills. Contemporary educators are sometimes concerned that distance education is a poor substitute for the traditional classroom. Obviously, online degree programs should uphold high academic standards and one way to do this is to promote critical thinking skills.

Lipman (1995) relates that "... critical thinking is skillful, responsible thinking that facilitates good judgment because it (1) relies upon criteria, (2) is self-correcting, and (3) is sensitive to context" (p. 146). It is one of the best definitions on critical thinking because Lipman integrates the concepts of standards (criteria to measure achievement), skills (especially cognitive) and personal judgment (making wise choices) into a comprehensive educational package. Lipman argues for a holistic instructional approach that acknowledges the importance of both teachers and learners fulfilling their respective roles in the educational process. Teachers must consistently affirm the independence and autonomy of their learners by enabling them to freely pursue authentic learning objectives. Yet, the idea of independence does not mean being totally separate or isolated from other learners and teachers. Rather, a balanced perspective would highlight giving learners the power to assume greater responsibility for their educational experiences while actively working with the teacher and other students (Sammons, 1990). Therefore, the context of learning critical thinking skills is interactive and built upon taking individual responsibility for academic achievements. Genuine reflective thinking requires being dedicated to improving individual academic performance by continuously enhancing cognitive skills.

Unfortunately, the concept of critical thinking has been confused with being something quite abstract from daily

living. In reality, adults utilize critical thinking skills in a host of situations: individuals raising questions about their behavior in an relationship, employees who explore the rationale behind their work assignments, managers experimenting with new forms of group work, citizens posing difficult questions to their political leaders, and families discussing the merits of various television shows (Brookfield, 1987).

Brookfield (1987) outlines five characteristics of critical thinking:

1. Critical thinking is a productive and positive activity.
2. Critical thinking is a process, not an outcome.
3. Manifestations of critical thinking vary according to the contexts in which it occurs.
4. Critical thinking is triggered by positive as well as negative events.
5. Critical thinking is emotive as well as rational (pp. 5-7).

The five characteristics highlight the dynamic nature of critical thinking and help people realize that life is filled with an enormous variety of opportunities to engage in thoughtful analysis and action. Ultimately, it involves a careful investigation of our personal assumptions about ourselves, our world and our relationships to one another. Critical thinkers tend to look beyond the surface of situations by exploring alternative perspectives. Yet, it is not a purely rational process because people are emotional creatures and any description of their thinking must include feelings.

Peirce (2000) shares eight strategies for teaching thinking in the online setting:

1. Design self-testing and tutorials on basic chapter content.
2. Apply the concepts of the textbook chapters to cases or issues every week.
3. Pose well-designed questions for asynchronous discussion.
4. Ask students to reflect on their responses to the course content and on their learning processes in private journals.
5. Create cognitive dissonance: provoke discomfort, unsettle confirmed notions, uncover misconceptions, inspire curiosity, pose problems.
6. Conduct opinion polls/surveys as pre-reading activities before assigned readings and to arouse interest in issues or topics.
7. Present activities that require considering opposing views.
8. Assign a mediatory argument promoting a resolution acceptable to both sides (p.1).

Conclusion

Today's distance educators face unique challenges that require a willingness to experiment with different teaching strategies. Our discussion on teaching strategies will involve an assortment of issues:

- What is considered "reasonable" student access to online faculty members?
- What criteria should be used when conducting online peer reviews of faculty teaching?
- What type of instructional strategies can online teachers use to humanize the educational process?

References

Boud, D. (1995). Assessment and learning: Contradictory or complimentary? In P. Knight (Ed.) *Assessment for learning in higher education*, London: Kogan Page, 35-48.

Brookfield, S. D. (1987). Developing Critical thinkers: Challenging Adults to Explore Alternative Ways of Thinking and Acting, San Francisco: Jossey-Bass.

Cantor, J. A. (1995). *Experiential learning in higher education: Linking classroom and community*, http://ntlf.com/html.lib/bib/bib/95-7dig.htm

Dalin, P., Rolff, H., & Kleekamp, (1993). *Changing the school culture*, London: Cassell.

Fullmer-Umari, M. (2000). Getting ready: The syllabus and other online indispensables. In K.W. White & B. H. Weight (Eds.) *Online teaching guide: A handbook of attitudes, strategies, and techniques for the virtual classroom*, Needham Heights, MA: Allyn & Bacon.

Hannafin, M. J., Hill, J. R. & Land, S. M. (1997). Student-centered learning and interactive multimedia: Status, issues, and implications. *Contemporary Education*, 68, 2, 94-99.

Hawley, P. (1993). Being bright is not enough: The unwritten rules of doctoral study, Springfield, ILL: Charles Thomas Publisher.

Hodges, L. & Hodges, R. (1998). On-line learning and authentic assessment. In Y. Cano, F. W. Wood, & J. C. Simmons (Eds.) *Creating high functioning schools: Practice and research*, Springfield, IL: Charles C. Thomas Publisher, 185-191.

Jargon Monitor (2000). *The Chronicle of Higher Education*, 57, 13, A51.

Kasworm, C. E. & Bing, Y. (1992). *The development of adult learner autonomy and self-directedness in distance education*, Report No. CE 063 391, Springfield, VA: DYNEDRS (ERIC Document Reproduction Service No. ED 355 453).

Kearsely, G. (1998). *A guide to online education*, http://www.fcae.nova.edu/~kearsely/online.html

Lewis, D. C., Treves, J. A. & Shaindlin, A. B. (1997). Making sense of academic cyberspace: Case study of and electronic classroom. *College Teaching*, 45, 3, 96-100.

Lipman, M. (1995). Critical thinking - what can it be? In A. L. Ornstein & L. S. Behar (Eds.) *Contemporary Issues in Curriculum*, Boston, MA: Allyn & Bacon, 145-152.

Livengood, M. D. (1987). Interactivity: Buzzword or instructional technique? *Performance & Instruction*, October, 28-29.

Mason, R. & Kaye, T. (1990). Toward a new paradigm for distance education. In L. M. Harasim (Ed.) *Online education: Perspectives on a new environment*, New York: Praeger, 15-30.

Milheim, W. D. (1995) Interactivity and computer-based instruction. *Journal of Educational Technology Systems*, 24, 3, 225-233.

Muirhead, B. (1999). Attitudes toward interactivity in a graduate distance education program: A qualitative analysis, Parkland, FL: Dissertation.com.

Nunn, D. (1998). *Delivering general education subjects electronically: Part One & Two*, http://node.on.ca/tfl/integrated/fieldnotes/nuun2.html

Peirce, W. (2000). Teaching thinking online: Strategies for promoting disciplinary reasoning, intellectual growth, and critical consciousness. *6th International Conference on Asychronous Learning Networks*, November 3-5, Adelphia, MD, http://www.aln.org/alnconf2000

Rowntress, D. (1995). Teaching and learning online: A correspondence education for the 21st century? *British Journal of Educational Technology*, 26 (3), 205-215.

Salmon, G. (2000). E-Moderating: The key to teaching and learning online, London: Kogan Page.

Salomon, P. C. (1992). The changing role of the teacher: From information transmitter to orchestrator of learning. In F. K. Oser, A. Dick, & J. Petry (Eds.) *Effective and responsibleteaching: The new synthesis*, San Francisco, CA: Jossey-Bass, 35-49.

Sammons, M. (1990). An epistemological justification for the role of teaching in distance education. In M C. Moore (Ed.) *Contemporary issues in American distance education*, New York: Pergamon Press, 151-162.

Sherry, L. (1996). Issues in distance learning. *International Journal of Educational Telecommunications*, 1 (4), 337-365.

The Well Spring, 1999. *Improving distance learning*, http://wellspring.isinj.com/.

Wagner, E. D. (1997). Interactivity: From agents to outcomes. *New Directions for Teaching and Learning*, 71, 19-26.

Wagner, E. D. (1994). In support of a functional definition of interaction. *The American Journal of Distance Education*, 8 (2), 6-29.

Willis, B. (1998). Effective distance education planning: Lessons learned. *Educational Technology*, 38 (1), 57-59.

Post-discussion summary

The discussion of the preceding paper occurred on the IFETS discussion list from January 15, 2001, to January 29, 2001.

1-15-2001

Muhammad Betz. Muhammad explored the issue of fear and learning in online education. “Brent has stated in his introductory paper, `educators should reduce negative learning experiences by controlling (e.g. censuring their remarks) those who interfere with class dialogue.’ This statement is made while reviewing the results of a research study conducted by Burge (1994). Brent also mentions later in the introductory paper that some instructors face a problem of declining student involvement as on-line courses progress. Is the reduction in student involvement due to fear of censure? This could be so. If the on-line instructor distributes rules for discourse at the outset of the course, the need for censure should be reduced, which in turn could reduce student fear and/or intimidation and lead to the sustaining of student participation throughout the course. End result: more learning. Additionally, online peer reviews might consider the presence of clear directions and rules for participation in discussions at the beginning of the course as a positive characteristic and the presence of intimidating censure during the course as a negative characteristic.”

1-16-2001
Charles Adamson. Charlesdid voice a concern for Muhammad Betz's statement "if the on-line instructor distributes rules for discourse at the outset of the course, the need for censure should be reduced, which in turn could reduce student fear and/or intimidation and lead to the sustaining of student participation throughout the course. End result: more learning."

Charles notes that the situation a little more complicated than a simple "more participation equals more learning"? He relates that "many students learn many things better by observing or listening rather than discussing. Instead of a blanket statement that more participation means more learning, I think that we need to consider both the content of the course and the goals. For example, consider a course in computer programming. Some students will benefit from discussions, but others, the majority in my experience, will not find this to be an efficient way of learning. They will benefit most from reading (or listening to lectures) and then doing it themselves. The only discussion necessary would be an occasional question. On the other hand, a course where the teacher does not have all the answers, a literature appreciation course, for example, would require a large amount of interaction between students as they explored various ideas. Thus, we seem to have a continuum with one extreme requiring participation for more learning, but at the other extreme no participation at all."

Charles states that "I am not arguing against participation or efforts to increase it. I am only saying that we should be sure that it is necessary before trying to increase it. It could be possible that decreasing student participation is simply an indication that the students are changing to a more effective teaching."

Brent Muirhead. Brent relates that it is important to establish communication guidelines for students. His students learn that there are five major purposes for online study of groups.

Enhance your self-confidence as you learn to strengthen your problem-solving skills.
Learn to make decisions that will distribute the work equally and effectively among group members.
Help you process the knowledge and workload of the class.
Learn how to work under the pressure of deadlines and time constraints.
Learn how to interact and cooperate with your peers.

Brent reminds his students that it is important to interact with other classmates online by reflecting on their observations and ideas. Their online comments should make a significant contribution to the discussion and that can be demonstrated in one or more of the following ways:

- suggest alternative solutions,
- identify potential or real problems,
- explore new theories,
- offer sound rationale from textbooks or articles when disagreeing when someone's comments, and
- share relevant work and research experiences/knowledge during the weekly discussions.

1-17-2001
Muhammad Betz. Muhammad reflected on Charles Adamson's comment "Instead of a blanket statement that more participation means more learning, I think that we need to consider both the content of the course and the goals." Muhammad acknowledges that Charles makes a true point here, but his statement is taken somewhat out of context. He made the statement in reference to Brent's paper, decried declining participation in "on-line discussions," as courses progressed. Logically, if participation in on-line discussions decreased, the learning that was to derive from structured discussions would likewise decrease.

Brent Muirhead. Brent commented about the need for adult learners to establish a study routine to successfully manage their course work. Students often struggle with learning problems such as perfectionism and procrastination. The students will sometimes complain about "open ended" written assignments because it forces them to move out of their comfort zones. Yet, students learn to handle their fears about term papers as they establish realistic writing goals. Ultimately, students gain the confidence to take some academic risks with their ideas and they take another step towards becoming a self-directed learner (Gobbo & Shmulsky, 1999).

Reference

Gobbo, K. & Shumlsky, S. (1999). Helping students manage perfectionism and procrastination. *College Teaching,* 47 (4), 148.

1-18- 2001
Brent Muirhead. Brent highlighted Randall E. Stross' attack online education in the January 15, 2001 issue *of U.S. News & World Reports.* Stross' article was titled "The New Mailbox U.----Discarding standards in pursuit of a buck." He attacks the University of Phoenix and other online schools for being developed as for-profit business operations. The article plays on a variety of fear-based themes involving the interaction of technology and the business world. He assumes that the business community will greatly diminish the quality of online education while eliminating the need for traditional schools and teachers. Unfortunately, the author appears to stress negative educational scenarios without having any reliable information about the online institutions that he freely attacks in his article.

1- 20- 2001
Diane Ehlrich. Diane talks about her efforts to help students have constructive online dialog. "I also create specific `tasks' for students to do or issues for them to solve and find that is

also fairly effective. I am currently using a web board for discussion in the advanced instructional design class I teach and find that students are reluctant to participate at first. Then they seem to make on-connected comments and then they `grow into' a dialogue."

She sees a real need for students who are risk takers and timely teacher interventions into the class discussions. "The class is project based and I am trying to create a virtual team as student's work together to solve problems and although it doesn't always work, I do think it does need risk takers to start it off. There also seems to be a fine line when I enter the discussion of wanting to direct their comments to me, so I tend to `lurk' more than contribute. I do feel that it is necessary to carefully craft each topic and engage students (almost like a TV program where they want to `tune in' so they can catch up)."

1- 22- 2001
Bill Eckersley. Bill is responsible for teaching an online course called Leading and Managing Change. The course is part of the Postgraduate Studies in Leadership and Management program at RMIT University in Melbourne, Australia. http://edulead.eu.rmit.edu.au/ Bill notes that he has "used many of the strategies that Dr. Muirhead described in stimulating online discussions. I have found a number of my students have delayed their first contributions until they have read others. I have emphasized the importance of students reading and reacting to each others contributions and at the same time forcing myself to remain in the background in order to encourage student-to student dialogue."

1- 25-2001
The dialog took a different focus after Brent Muirhead posed two new questions to the discussion forum.

1. What landmark technologies might alter the future of computer-mediated education?
2. What additional skills will future online teachers need with the advent of major changes in the technological landscape?

Joan Cushin. Joan discusses the promise and challenges of future online technologies "I think the most exciting potential for on-line education is the use of the on-line technologies to find the best pedagogical learning for all students. The solution will be different for different students depending on access, distance, the skills or discipline being learnt and the learning style of that particular learner. On-line education can provide many solutions, but what the teachers need is enough knowledge and confidence to use the technologies to provide a range of educationally sound solutions for all learners."

Joan believes that a highly interactive online curriculum will provide excellent learning opportunities but still not meet the educational needs of some students. For instance, there will be students who need face-to-face assistance because they are not as intentional about meeting their learning needs.
Art Recesso. Art related that "one of the technologies that will change the face of online learning is the multiconferencing unit (MCU). Using this server-based system, you are able to interact 'live' with multiple people through video and audio. The system is multi-conferencing and supports multi-points-of-presence. Multiple people in multiple remote locations are able to interact synchronously. The technology allows us to come full-circle, enabling synchronous-learning. While the technology does show promise, we have found several issues to be limiting the widespread use of MCU for online learning." Art related that cost, bandwidth and firewalls are three issues that are currently limiting MCU. Yet, his optimistic that "as the technology matures we will overcome many of these issues."

Tom Cantu. Tomoutlines an instructional vision that must face the problem of "distributing high end multimedia instruction over the web. There is so much more one can do to immerse students in learning by using the multimedia capabilities of CBT… Imagine if you could combine the features of multimedia CBT with virtual reality with the best of Electronic Performance Support Systems. Augmented Reality is one name for it. Here is an example: Imagine a virtual reality wizard that can coach a learner through a lab experiment with the same level of guidance an instructor could provide."

Dennis Nelson. Dennis addresses the issue raised by Brent Muirhead that "ultimately, the public could become disillusioned with online education if they fail to deliver their promises for quality and personalized instruction. Dennis discusses how computer-mediated education (CME) is already gaining ground on ensuring universal access. Currently, CME work being done by the military will eventually influence American society. He highlights the skills that future online teachers will need as follows: "skills include: handling multiple projects, concise communication, Internet research, extensive networking, extrapolation, empathy, self-discipline. As with the technological issue, the better teachers already have been highly skilled in these areas. The better teachers just lacked the Internet as a stimulus / tool to become better in those skills or accomplish the tasks, experiences associated with that skill development."

Deirdre Bonnycastle. Deirdre shared two relevant learning web sites that might hold promise for future curriculum development projects.

Roger Schank's Goal Based Scenario's,
http://www.ils.nwu.edu/~e_for_e/nodes/NODE-291-pg.html
Interactive Children's software such as Jumpstart https://store.knowledgeadventure.com/ObjectBuilder/ObjectBuilder.iwx?Process
http://www.sierrastudios.com/games/pharaoh/

Alejandro Pisanty. Alejandro discussed the near revolution that has occurred in videoconferencing and MCU due to major increases in bandwidth. Also, the need for teachers to have a vision beyond our current PC/Web model. Pisanty states that "even without wireless services, portable devices such as PDAs, WAP enabled mobile phones, and the fusions and convergences we will see in the market in the coming years, are fast becoming a useful and appreciated possession for students (yes, even in Mexico...). Designing for these devices requires new insights and also affords interesting new approaches."

1- 26- 2001

Muhammad Betz. Muhammad responded to Don Smith's question about the role of teachers, "sounds like you are advocating public education without teachers. Is that so?" Muhammad states that "the intention of the State of Oklahoma is to equalize educational opportunity by means of the VISION effort. Oklahoma is a big state in land size, but has such a small human The Internet curriculum would provide isolated students higher quality instruction in all areas of the curriculum. Interactive Educational Television is currently used throughout the state at the high school level. One such project makes use of a rare Spanish teacher at one locale who broadcasts his Spanish class to several remote locations, in interactive manner."

Muhammad believes that Internet-based curriculum will not replace teachers but their roles will change. "I do envision that an on-line curriculum would lead to more home schooling, which is a phenomenon that is popular in this region. And…should it not? What is all this technology for, if it does not have an anthropological payoff for our society? What is that payoff (?): perhaps a significant reduction of the need for physically traveling to and fro to work, learn, and live."

1-27- 2001

Martin Owen. Martin tackles questions about technology using a sociological analysis. Martin states that "this has resonances for me for the work I have been doing looking at the post Vygotsyan and post Batesonian ways of looking at the socio cultural formulation of our use of technology. The use of the device is extremely interesting.

1. it is a major tool for coordination for sub communities, they facilitate the formulation of communities of practice
2. it is a tool they use for instant counselling and problem solving
3. Text messaging is as popular as voice, thus as the range/capability of devices increases. I imagine so will the styles of usage."

Martin does reflect on change in the 21st century. "our old structures will not be able to cope with this istantaneousness, especially as we (certainly in the UK) have had layers of managerialism and spurious quality control mechanisms placed upon us. By the time the documentation and bureaucracy is in place, the game has moved on. And this game thrives on lack of extrinsic control."

Brent Muirhead. Brent shared an article found in January 2001 issue on *The Futurist*, a book reviewed by Lane Jennings. Inayatullah, S. & Gidley, J. (Eds.). (2000). *The University in Transformation: Global Perspectives on the Futures of the University* Bergin & Garvey.

Lane (2001) states that author's concerns that "the Internet University poses dangers, too. For example, a line of franchised courseware, produced by a few superstar teachers, marketed under the brand name of a famous institution, and heavily advertised, might eventually come to dominate the global education market, warns sociology professor Peter Manicas of the University of Hawaii at Manoa. Besides enforcing a rigidly standardized curriculum, such a `college education in a box' could undersell the offerings of many traditional brick and mortar institutions, effectively driving them out of business, and throwing thousands of career academics out of work, note Australian communications professors David Rooney and Greg Hearn (p. 58)."

Inayatullah and Gidley (2000) do admit that global connectivity could resist or counter a variety of academic dangers such as excessive uniformity in course content within the virtual higher education community. The book describes three new roles for university faculty members: brokers, mentors and meaning-makers that will transform the teaching and learning process in higher education.

Reference

Jennings, L. (2001). Alternative visions for the future university. *The Futurist,* 58 (1), 58-59, http://wfs.org/rev2371.htm

1-28- 2001

Sandra Bargery. Sandra relates that "mobile phones won't be around for ever, but the implication for a device that is smaller, more portable and less likely to be anchored in a traditional classroom should be seriously considered. Which then brings along a lot of other interesting ideas of what really constitutes a 'classroom'?" Bargery continues with the issue of life long learning. "How about flexibility and life long learning <groan> I know its been done to death, but it hasn't actually impacted on those institutions called schools! They use it in their school mottos and logos but it hasn't actually crossed the classroom floor yet!"

Eric Flescher. Eric remarks highlighted the need for students to be challenged to monitor their thinking skills while learning online. "I think it is really important for students to extend their metacognitive thinking as they interact with simulations and internet etc. what would be good is

1. interactive separate windows or screens that pop to elicit information from the students about where they are going, what they are doing and why.
2. another console that takes their thoughts and stores them about what they are doing."

Cameron Nichol. Cameron offered insights on distance education that were based on working developing online education in Victoria (Australia) involving the Vocational Education and Training sector. Nichol noted that "in

terms on developing good content the importance of experienced Instructional Designers in the central role cannot be over-emphasised. This is a specialised skill and unfortunately being a damned good classroom teacher or academic of high standing does not really equip you with the range of skills required."

Cameron has genuine concerns about teachers becoming online instructors, "many good classroom teachers with excellent face to face skill seem to be seduced into developing `web sites' rather than learning environments."

Cameron provides a series of questions that can be used to help teachers adjust their thinking and planning strategies for being an online instructor:

- How do you keep your class on track?
- How do you handle your class when a valuable question that is off the specific current topic is asked?
- How you handle situations when a valuable side track discussion arises?
- What do you do to keep the student involved eg `ok, give me 5 reasons why this might occur', `has anybody seem a different way to do this?' `that reminds me of joke…'
- What homework do you give out?
- Now how are you going to do that online?"

Cameron has offers nine practical tips for instructional software developers:

1. In terms of explaining the relative virtues of online learning, refer to flexible learning and learning strategies that increase options. If possible try to avoid referring to online learning.
2. Get in first with the limitations on online learning (`there are a lot things you can't do on a computer…'), then introduce the relative advantages of your strategy e.g. hybrid classroom/online courses.
3. Develop a good working knowledge of the existing organisational and political culture. Align the "product" with the organisational goals (or biases).
4. Take a long-term view. Consider from the outset what level of compromise is acceptable.
5. People want to see examples.
6. 2 pages of pictures and arrows is worth more than a 10 page description (and if done well will take you longer to do).
7. The best project in the world is useless if your boss `doesn't get it'. Have an implementation / marketing plan for senior management.
8. Be prepared to take advantage of `lucky breaks' ('the harder I work the luckier I get')
9. It's not the end of the world when your boss says `no, I don't like it'."

1-29- 2001

Ian Reid. Ian shared with the discussion forum an online evaluation system developed by Univ. of South Australia, http://www.unisanet.unisa.edu.au/sei/evaluation/evaluatn.htm

Faculty members can create evaluation instruments that give teachers quick student feedback with statistical data. Reid generously offered to respond to any further questions about the evaluation system.

Diane Ehrlich. Diane shares concerns about the criteria used in selecting instructional media. Diane notes that "certainly some of the programs suggested are seductive, but media selection also has to be evaluated as to cost effectiveness and suitability. I think Joan Cashion's points about educating teachers to use technology and also giving them the confidence to use the technology are key ingredients to successful teacher education or professional development today."

Diane believes it is wise to use syllabi and other organizational tools to help students adapt to the online environment. Then, the teacher can help move the their students "to a more sophisticated way of processing information, but it would be unwise to think that students do so instinctively. I always hoped mine would, but have found out differently." Diane is involved in a research project and she relates that "the 'set-up' and orientation seem to be key to a student's comfort level and desire to work with the technology." She closes her comments by stressing the importance of having class structure for new students. "I also find that how the course is framed and helps defining the course requirements and navigation guidelines for discussion, assessment, etc.have contributed to an almost audible sigh of relief as students transition from a traditional classroom structure to an on-line environment."

Steve Mahaley. Steve discusses insights gleaned from recently talking with American middle school teachers. The teachers related stories about the stress on high stakes testing and excessive daily nonacademic duties (ex. monitor lunchrooms). Steve argues that the American public must demonstrate more respect for teacher's time before there will be any real integration of technology into the classrooms. "When we make a monetary commitment to improving the tech base at our public schools, when we provide ample planning time and eliminate many of the low-end administrative duties, when we encourage creativity and a real application of proven teaching methodologies, that's when we will see flexibility and life-long learning benefiting our children."

Des Wilsmore. Des reflects on his extensive research into Australian schools. "My early conclusions suggest that where they were being used effectively (and appeared to have a great deal of motivational impact), the lessons and uses focussed on interactive use of the technology, not just students sitting in front of computers. The uses of the technologies were also often tied in and not separate from the learning outcomes that the teachers/educators were trying to achieve."
He notes that "education in many areas does not appear to be keeping up with the advances in technology. As my friend John Patterson from Wollongong University (Australia) explained to me. Many schools and universities had merely changed a horizontal page to a vertical one."

Concluding Remarks

The discussion highlighted the challenges and promise of computer-mediated education. Today's teachers who are making the transition into distance education are finding that schools need to develop professional training programs. Additionally, discussion participants stressed the importance of instructional designers working closely with teachers to create relevant online courses (subject content & methodology). Ultimately, teachers will continue striving to implement creative online instructional strategies that foster student learning opportunities and encourage personal and professional growth.

Part 3

Advice for Online Students

Writing Advice for Today's Online University Students

Brent Muirhead

Muirhead, B. (2004). "Writing advice for today's online university students." International Journal of Instructional Technology and Distance Learning, 1 (9), 77-81. Available: http://www.itdl.org

Editor's Note: *Brent continues to share ideas for continuous improvement in student performance. Writing is important to success in academia and in the world beyond. The best jobs require "excellent communication skills" and "excellent writing skills." For some it is a gift, but for others it is a discipline. The real joy in writing comes when we master the mechanics so that our mind connects to the receiver with no thought of the technology involved, like a master musician. At this point, information is enriched with imagination and our enthusiasm creates a bond with the reader.*

Introduction

Contemporary online university students often express concerns about handling written assignments for their classes. This discussion is designed to assist students in developing effective writing strategies and practices that will enable them to create quality papers.

The Challenges of Writing

A key starting point is identifying the purpose of the assignment. That will shape the entire writing process. Students should clearly understand their instructor's directions and expectations. If the individual is confused whether it is a formal or informal paper, it is vital to contact the instructor to clarify their questions or concerns. Students must be proactive and learn to cultivate a positive attitude toward their written work. Writing can be an intimidating task for those who lack confidence in their skills. Often online classes require numerous papers, and this magnifies feelings of anxiety. Some students become frustrated when they struggle to put their thoughts into words. Hancock (2003) urges individuals to "close your eyes, visualize a specific, living, breathing reader, and say to yourself, 'What am I really trying to say?' Whatever the answer, write it down. Polish it later if it's needed --- but you may be surprised at how trivial the polishing can be" (p. 5).

Be proactive in facing the challenges of writing. Become sensitive to issues that affect you and have a negative impact on written work. Over the years, students have shared seven major reasons for struggling with term papers:

Procrastination - often the greatest battle is getting started and students develop the habit of putting off doing an assignment until last minute and struggle to meet deadlines.

Perfectionism - students who set unrealistic academic standards for themselves and are constantly revising their papers. It is can be an emotionally draining practice that often undermines the development of effective writing skills.

Indecision - students find identifying a specific topic illusive and they waste time by continually switching between different ideas without any definite closure.

Stress/Anxiety – when students are tense, it can shut down the entire writing process. Anxious feelings increase as the due date approaches and little or no progress is made.

Job/Personal Problems - emotionally challenging work and home situations make writing more difficult because of preoccupation with too many problems.

Negative Comments - excessively negative remarks by instructors or associates can create emotional or psychological barriers that undermine confidence.

Term Paper Syndrome - absence of personal autonomy in selecting relevant topics create a mind set against having to crank out papers to meet course requirements (Muirhead, 2004).

The list reveals the importance of understanding and addressing challenges that adversely influence on the writing process. Students share horror stories of college term papers that were heavily criticized and how this eroded their confidence. To affirm positive aspects of their work was a lost opportunity.

Journal Writing

Professional writers encourage people to start a personal journal to foster a positive attitude toward writing and empower them to freely express their ideas. Reflective journals are an excellent way to improve writing skills. Today, a growing number of people create electronic journals as an effective way to recall ideas and organize information. Educators use journal writing exercises in their classes because it offers a diversity of relevant learning opportunities. Students investigate knowledge in a less structured format while cultivating their writing skills. Instructors who take the time to carefully read student journals glean valuable insights into their sources of motivation and academic needs.

Journal writing assignments can be designed to address course learning objectives. The University of Phoenix has its online doctoral students integrate journal writing in their Doctor of Management degree program. Students use their journals to meet a variety of learning needs such as reflecting

on research studies that are important to their dissertation projects. Students and teachers use journal writing activities in a variety of academic disciplines as a creative way to enrich educational experiences. Muirhead (2004) shares seven major advantages to journal writing:

1. **Provides an aid to memory** - researchers and writers have learned the value of recording their ideas for future use.
2. **Provide a basis for creating new perspectives** - it creates a framework to explore ideas and identify contemporary intellectual trends.
3. **Enhances critical thinking skills** - creates opportunities to refine thinking skills by analyzing the underlying assumptions of personal ideas and beliefs.
4. **Provides psychological/emotional advantages** - it enables individuals to work through difficult work and personal situations and promote healing and growth.
5. **Offers opportunities to increase empathy for others** - individuals address social issues and enhance their understanding of individuals and groups.
6. **Provides a practical way to understand books/articles** - writing creates a framework to regularly examine reading materials and improve skills related to comprehending, understanding and recalling knowledge.
7. **Provides support for self-directed learning activities** - journal writing requires personal discipline which is a vital ingredient in becoming a life-long learner.

The Art of Effective Writing

A writing plan is a vital step towards improving writing skills. The plan should emphasize realistic strategies that foster constant improvement and help to create quality papers. Veteran writers recommend establishing a writing plan based on assignment due dates. A good writing plan will involve calculating the approximate amount of time needed to effectively complete the paper. It will take personal discipline to consistently work on the paper. A writing schedule will reduce stress by integrating enough time into the individual's daily routine to research, outline, write, and edit the paper in time to meet the deadline for the assignment. A writing plan will help procrastinators to get started earlier and perfectionists to allow more time for revisions. The time line must allow sufficient time to complete each phase of the research and writing experience. A time line should have built-in flexibility to insure that adequate time is allocated for each phase of the writing process (Sawers, 2000).

Students at the University of Phoenix (UOP) can electronically submit papers for review by The Center for Writing Excellence. The Tutor Review service provides feedback on the first four or five pages of the student's paper in grammar, word usage and organizational issues. Students normally receive their Tutor Review feedback within 48 hours but in busy periods feedback may take 4 or 5 days. The Tutor Review program is popular with students for its relevant and specific remarks. UOP plans to implement The WritePoint[sm] Automated Review system in the near future. It will offer detailed feedback to students within minutes.
Student writers must take personal ownership of their learning and develop a writing plan based upon sound writing principles and aligned with their personal and professional goals. Mattenson (2004) is a university teacher who encourages students to recognize their writing habits, "my standards are with you for 10 weeks, 'I tell my students,' but yours are with you for the rest of your life" (p. B11).

During my second doctoral program, I made journal publication of articles a primary career goal. I made arrangements with the university administrators not to receive letter grades for my papers and course work. Instead, I focused my energies into producing quality term papers and I was able to translate my doctoral materials into numerous journal publications.

The planning process is an essential step towards improving written work. It involves selecting an appropriate topic, designing a thesis statement, conducting preliminary research to make sure there is adequate information on topic, and developing a basic outline of the paper. Students who rush into their writing project and skip these steps take a risk that could cost them precious time. The preparation phase is essential to lay a solid foundation for the actual writing process. It helps students to achieve a focused paper with appropriate information sources to support their ideas.

Students should strive for precision and impact in their papers. I remind my students that contemporary readers are opposed to any form of media that appears to waste their time. People will often skip over journal or magazine articles that lack conciseness and visual appeal. Contemporary Americans are well known for surfing through an assortment of television or radio programs and web sites. Therefore, writers must evaluate their use of language whether it has the dynamic quality that captures the reader's attention or verbiage that might repel potential readers. Brohaugh (2002) describes flabby writing as "any that slows the reader down - anything that physically slows the sweep of the eyes across the words, that stands physically in the way of the reader's mind absorbing the meaning of the words as quickly as possible" (p. 2).

Students who tend to be verbose will write an excessive amount of words. Extra words produce confusion in the mind of the reader. Redundancy is one type of wordiness and it can appear in several forms: three illustrations to support a single point, constantly repeating a major point, or excessive repetition of a single word like "perspective." It is misuse to cluster redundant words for emphasis and lose clarity. Brohaugh (2002) relates that "pesky tautologies simply clutter things up saying 'mental telepathy' when 'telepathy' is enough or saying 'past achievement' when 'achievement' itself communicates that it happened in the past" (p. 17).

Student writers can enhance their writing skills by following a basic writing plan that helps them to effectively edit their work. Hostetler (2004, pp. 24-26) offers ten practical steps to polish their papers to which I have appended with explanatory comments:

Ask who cares - focus on relevant knowledge that interest readers

Edit for weaknesses - enlist individuals who can provide constructive advice

Use computer tools - use spelling and grammar software
Proofread your work later - wait three days to edit to keep a fresh perspective

Delete unnecessary words - aim to create clear sentences

Highlight all verbs - select verbs to change from passive to active

Highlight adjectives and adverbs - delete redundant adjectives and verbs

Eliminate clichés - avoid using terms such as downsizing

Sprinkle in variety - vary sentence length, mix simple and complex sentences

Read aloud - identify sentences to changes such as location of verbs

Conclusion

Writing papers can be a positive educational experience for online students who take the time to design and successfully implement a strategic writing plan. Students can become better writers through consistent self-evaluation of their work and application of relevant instructor suggestions. Students are more excited and motivated to write when they learn how to effectively share their passion and expertise with others.

> *"Whatever Wells writes is not only alive, but kicking." Henry James referring to H.G. Wells*

References

Brohaugh, W. (2002). Write tight: How to keep your prose sharp, focused and concise. Wilmington, DE: ISI Books.

Hancock, E. (2003). Ideas into words: Mastering the craft of science writing. Baltimore, MD: The John Hopkins University Press.

Hostetler, B. (2004, September). 10 simple exercises to improve your craft. Writers Digest guides presents start writing now: Your introduction to the writing life, 24-26.

Mattenson, L. M. (2004). Teaching student writers to be warriors. The Chronicle of Higher Education. 1 (48), B10-B11.

Muirhead, B. (2004). Facing the challenges of writing (class handout). Phoenix, AZ: University of Phoenix.

Sawers, N. (2000). Ten steps to help you write better essays & term papers. Edmonton, Canada: The NS Group.

Literature Review Advice

Brent Muirhead

Muirhead, B. (2004). "Literature review advice." *International Journal of Instructional Technology and Distance Learning*, 1 (2), 59-63. Available: http://www.itdl.org

Editor's Note: *This month Brent Muirhead addresses graduate students about Internet resources for literature review. The overwhelming volume of information, more than ever, requires an organized approach to define, plan, search, study, record, and organize relevant resources. He recommends a combination of Internet and traditional library resources to demonstrate "careful and reflective investigation of research studies and vital information resources."*

Introduction

The rapid expansion of available information has created new opportunities and challenges for today's research students. Academic and public libraries have developed sophisticated electronic resources to better manage knowledge to make it more accessible to researchers. The literature review process is often a major challenge for graduate students who must learn to effectively work with computer technology and manage larger volumes of available information. The focus of this discussion is to share practical advice for assisting individuals with the literature review process.

Research Skills

Contemporary graduate schools expect students to have expertise in a specific academic discipline and this knowledge base serves as a vital part of their degree program. Recently, there have been some changes made in graduate curriculums involving their expectations for skills, competencies and professional capabilities. Today, there is a greater emphasis on transferable skills (i.e. making presentations) to better equip graduates for a wider range of careers and research demands.

The tremendous expansion of electronic information resources has increased research opportunities exponentially. This fact makes it even more important that students are properly prepared to use the new technologies. In the United Kingdom, the Economic and Social Council (ESRC) has created a set of guidelines and proposals to help graduate educators improve their research training and encourage quality research projects. The ESRC has identified two basic types of skills required for researchers:

Core skills and abilities- while the differences make subject disciplines distinctive, there exists a common core of skills and attitudes which all researchers should possess and should be able to apply in different situations with different topics and problems.

Ability to integrate theory and method- research for all disciplines involves an understanding of the interrelationship between theory, method and research design, practical skills and particular methods, the knowledge base of the subject and methodological foundations (Hart, 1998, p. 5).

Graduate degree programs are an excellent place to develop and refine research skills. Hart (1998) states "it is important that research education and training does produce researchers who are competent and confident in a range of skills and capabilities and who have an appropriate knowledge base" (p. 6). Students create projects that demand having effective skills in conducting a literature review, developing a research design, writing and presenting their study. Therefore, it is vital that students must have a sound knowledge of the entire research process to produce research that demonstrates quality work. The concept of scholarship should include competent investigations and it should transcend multiple activities while also involving a diversity of skills and activities. The process requires knowing how use one's imagination and creativity to read and interpret arguments, organize ideas, make connections between academic disciplines and effectively write and present ideas. The scholar must maintain a mindset that is open to new and innovative research methods and they should be willing to experiment with information and ideas. The skill of integration is a vital element in scholarly work. According to Hart (1998) "integration is about making connections between ideas, theories, and experience. It is about applying a method or methodology from one area to another: about placing some episode into a larger theoretical framework, thereby providing a new way of looking at the phenomenon" (p. 8). Integration demands individuals becoming disciplined at being systematic and reflective in their investigation endeavors. It requires being patient while re-examining and interpreting knowledge and being open to new perspectives on existing theories.

Graduate students should develop a research plan that helps them focus on developing skills that foster integration in their work and they should realize this may take time and substantial effort. Personally, people will often ask me how I acquired six graduate degrees and I related that I diligently studied for 8-10 hours a day for the past 20 years! It is encouraging to realize that studies on those who are associated with being a genius reported that they were very hard working individuals. Howe (1999) observes, "like ordinary men and women, major authors have had to invest large amounts of time and effort in order to become unusually skilled. Their heavy dependence on training and preparation is one of the many aspects of the human experience that creative geniuses share with other people" (p. 175).

The Literature Review Process

Reviews can vary greatly in their scope and depth of material examined. Therefore, the selection of study topic is a key factor and students are advised to be careful to avoid selecting topics that transcend the requirements of their degree programs. A primary reason for studying the literature is to demonstrate familiarity with research in the field and establish credibility for the individual's current investigation. The literature review is based on the assumption that research should build upon the work conducted by other researchers who are part of a larger intellectual community (Neuman, 1997).

The literature review helps the student to understand the historical context of their subject while focusing on current research efforts. Students will learn to identify areas of concern and become aware of any specific issues that have been neglected. A student might decide to change their topic if they realize that a more important topic needs to be studied and they can effectively address it within their degree program. The literature review can help students develop a framework for their own study by noting what others have done with their particular research design such as the data-collection techniques. Additionally, reading the literature will provide an overview of the major theories and ideas that have guided previous researchers. Students must have a good working knowledge of the key concepts in their field of study to develop an appropriate vocabulary for writing and communication of ideas (Hart, 1998).

The review of the literature should be done in an organized manner to effectively cover the material related to the research problem. The wise researcher will often conduct a review using sequential steps including the following:

1. analyze the problem statement.
2. search and read secondary literature.
3. select the appropriate index for a reference service or database.
4. transform the problem statement into search language.
5. conduct a manual and/or computer search.
6. read the pertinent primary literature.
7. organize notes.
8. write the review (Introduction to educational research, 2003, p. 73).

Students should create a specific plan to systematically investigate the literature that effectively covers both electronic and print sources of information. One part of the plan should contain a basic record keeping system that will help organize work accomplished to develop leads for future research and avoid loosing valuable data. For instance, students can save articles on the Internet with their web browser. This will make much easier to locate the next time the article is needed. Also, it is wise to create a basic set of questions to quickly scan the importance of an article. Locke, Silverman and Spirduso (1998, pp. 148-149) recommend starting with asking five basic questions of the research article:

1. What is the report about?
2. How does the study fit into what is already is known?
3. How was the study done?
4. What was found?
5. What do the results mean?

Reviewing the literature will require developing a methodology to analyze and critically appraise the quality of the writer's work. Students can begin by creating a descriptive summary of their studies to provide a basic overview of the material. The next step in the review process involves analyzing articles to better understand the reasoning underlying the author's work. Hart (1998) notes that "you are aiming to make explicit the nature of the connections between the methodology choices an author has made and the data they have collected through to the interpretations they have made of their data" (p. 56).

Identifying the style and structure of the author's reasoning will require looking at the article in a more in depth manner. Students must explore issues such as methodological assumptions, aims and purposes of the research and evidence presented. For instance, knowing the purpose of the author's work does help to categorize the article. Creswell (2002) relates that a research project may:

- address gaps in knowledge by investigating an area of research that fills a void in existing information.
- expand knowledge by extending research to new ideas or practices.
- replicate knowledge by testing old results with new participants or new research sites.
- add voices of individuals to knowledge, individuals whose perspectives have not been heard or whose views have been minimized in our society (p. 4).

The critical analysis of articles is one of the more demanding aspects of the literature review but it helps the student discern the quality of work produced within the field (Hart, 1998). Students should strive to demonstrate their careful and reflective investigation of research studies and vital information resources. Their discussion should reflect a vivid awareness of theories and arguments that acknowledges both their strengths and weaknesses. A balanced review will affirm the usefulness and merits of a theory while exploring areas that need improvement. Research criticism must be based on understandable arguments that effectively identify inadequate or flawed evidence. Additionally, students will sometimes be able to use aspects of different writers work to develop their own synthesis of ideas and offer new perspectives on their subject matter.

Reviewing the literature requires patience and diligence to carefully select and examine research studies. Gall, Borg and Gall (1996) highlight seven common mistakes that people can make during the review process:

The Researcher:

1. Does not clearly relate the findings of the literature review to the researcher's own study.
2. Does not take sufficient time to define the best descriptors and identify the best sources to use in reviewing the literature related to one's topic.

3. Relies on secondary sources rather than on primary sources in reviewing the literature.
4. Uncritically accepts another researcher's findings and interpretations as valid, rather than examining critically all aspects of the research design and analysis.
5. Does not report the search procedures that were used in the literature review.
6. Reports isolated statistical results rather than synthesizing them by chi-square or meta-analysis methods.
7. Does not consider contrary findings and alternative interpretations in synthesizing qualitative literature (pp. 161-162).

Graduate students can sometimes error in their approach to studying the literature. Students will strive to read everything remotely related to their topic and waste time on trivial articles and materials. A good literature review will stress only the most important and relevant documents. Also, individuals can spend all of their time reading and fail to write about their project. Usually, most people would choose reading over writing because it tends to be less demanding than writing. Students need to be reminded that writing is another way to reflect upon ideas and foster a better understanding of information relationships (Language Center, 2004).

Conclusion

A solid review of the literature will communicate a sense of purpose in every article, report and book examined. The reader will not be informed by long lists of studies that appear to be randomly strung together. In contrast, readers appreciate reviews that are well organized, reflective and that highlight the most important studies. Students who become skilled at investigating research will produce authentic reviews that demonstrate creative insights and promote scholarly work (Hart, 1998; Neuman, 1998).

References

Introduction to educational research (2003). Custom electronic text for the University of Phoenix. Boston, MA: Pearson Custom Publishing.

Creswell, J. W. (2002). Educational research: Planning, conducting, and evaluating quantitative and qualitative research. Upper Saddle Creek, NJ: Pearson Education.

Gall, M. D., Borg, W. R., and Gall, J. P., (1996). *Educational research: An introduction* (6th ed.). White Plains, NY: Longman Publishers.

Hart, C. (1998). *Doing a literature review*. Thousand Oaks, CA: Sage Publications.

Howe, M. J.A. (1999). *Genius explained.* Cambridge, UK: Cambridge University Press.

Language Center (2004). Writing up research: Using the literature. Asian Institute of Technology. Available: http://www.clet.ait.ac.th/EL21LIT.htm

Locke, L. F., Silverman, S. J., and Spirduso, W. W., (1998). *Reading and understanding research.* Thousand Oaks, CA: Sage Publications.

Neuman, W. L. (1997). Social research methods: Qualitative and quantitative approaches. Needham Heights, NJ: Allyn & Bacon.

Academic Presentations: Practical Advice for Today's Graduate Students

Brent Muirhead

Muirhead, B. (2004). "Academic presentations: Practical advice for today's graduate students." *International Journal of Instructional Technology & Distance Learning* 1(1), 55-59. Available: http://www.itdl.org

***Editor's Note**: Doctoral students must prepare and present proposals for their Doctoral Dissertation research. Brent Muirhead addresses the need for certain planning structures to ensure that purpose, proposal, methodology, results, and significance are clearly stated and intelligible to the target audience. This raises certain challenges in research design communication.*

Introduction

Presenting research results is a vital aspect of graduate work. It is an exciting time in a student's degree program because it represents the culmination of many hours of hard work. The communication of research findings provides a valuable opportunity to inform others of a current investigation and it and can lead to future speaking opportunities at conferences, grants for future research projects, school and business meetings and offer natural connections to new job opportunities! My discussion will highlight major elements in preparing academic presentations that will help students to best represent their research while effectively meeting audience expectations. An emphasis will be placed on action research projects that are growing more popular in today's graduate education programs.

Presentation Purposes

Action research projects are naturally proactive endeavors that are designed to promote an accurate understanding and awareness of educational problems. They are solution-oriented investigations that use systematic analysis and data reflection that are essential for encouraging the implementation of instructional changes in classrooms and educational institutions (Johnson, 1993). Action research projects are becoming more popular among contemporary professionals in the social sciences and especially those involved in social work, health and education. (Hart & Bond 1995) cite seven distinguishing characteristics to action research:

1. is educative;
2. deals with individuals as members of social groups;
3. is problem-focused, context-specific and future-orientated;
4. involves a change intervention;
5. aims at improvement and involvement;
6. involves a cyclic process in which research, action and evaluation are interlinked;
7. is founded on a research relationship in which those involved are participants in the change process (pp. 37-38).

Presenting academic material requires careful preparation and planning to effectively communicate to your audience. It is important to consider the diversity of expertise within a group of educators. Audiences will usually contain people who are experts in your subject area, others who have a general knowledge of the topic and the remainder who have basically little or no knowledge. How do you plan to effectively reach such a wide range of knowledge levels within one group? A popular communication strategy is to directly address the experts while integrating relevant and interesting illustrations and ideas into the presentation that make the results accessible to entire audience. It is a multidimensional speaking technique that demonstrates respect for those who attend your presentation (Cryer, 2000; Hill, 1997).

Essential elements for action research presentations:

- Problem description and documentation
- Setting: population
- Solution strategy
- Analysis of results (anticipated & otherwise)
- Recommendations for change & for future researchers
- Solicitation of audience feedback

Problem Description & Documentation

The problem statements should be presented in descriptive language that the audience can easily understand. The presentation should include several key studies from the literature review to provide solid support for the rationale for pursuing your research problem. There is a real temptation to share a host of studies but it tends to distract people who generally are more interested in understanding why an individual has undertaken a particular study.

Setting: Population

This section should reflect a basic overview of the study participants and help acquaint people with the school or organizational setting for the research project. Due to the international interest in research efforts, be sure to share enough factual information about the study site and population to inform individuals from other countries. Also, it might be necessary in some situations to include a brief overview of key terms to effectively communicate with a diverse audience.

Solution strategy

Presenting possible solutions to educational problems is a vital part of the research process. Individual projects will often focus on issues within a specific realm of practice in a

classroom or throughout a school such as disciplinary referrals. It is important to present information in a concise manner that highlights the specific changes to improve the educational setting. Therefore, stress three or four changes that will help you keep your presentation focused and reduce potential resistance to your ideas (Calhoun, 1993).

Analysis of Results
(anticipated and otherwise)

Interpretation of qualitative and quantitative data is always a very challenging task. The author recommends reviewing your results in light of the concepts of significance, generalizability, reliability and validity. The generalizability of an action research project requires you to ask specific questions which examine the degree of broader applicability of your particular study. Blaxter, Hughes & Tight (2001) recommend asking yourself the following questions:

If you have carried out a detailed study of a specific institution, group or even individual, are your findings of any relevance beyond that institution, group or individual?
Do they have anything to say about the behavior or experience of other institutions, groups or individuals, and if so, how do you know that this is the case? (p. 221)

Every study has a certain level of limitations involving generalizability. Action research projects are designed to address real problems in a school such as the quality of student writing or reading comprehension skills. Collaborative action research projects offer opportunities to increase the significance of an investigation by exploring and examining issues within a school or several schools. Individual case studies and action research projects remain an important part of today's academic community.

Researchers need to carefully share conflicting or even somewhat confusing results because this represents valuable information. Often, it stresses the complexity of studying the teaching and learning process and the need to explore the topic in greater depth in a future research venture.

Salmon's (2000) investigation into facilitating online dialogs at the Open University (London, England) reflects how an individual study can benefit both a higher education institution and offer potential insights for online teachers. Her findings were based on a combination of content analysis of online communication of students and teachers, focused group work and testing and evaluation of a new teaching and learning model. Salmon developed a comprehensive chart of five facilitator or e-moderator competencies:

1. **Understanding of online process**- understand how to promote group work, pace online discussions, experiment with new ideas
2. **Technical skills**- use software to facilitate student interaction by monitoring student messages and create conferencing opportunities
3. **Online communication skills**- able to effectively interact with students by using concise and clear messages that encourage academic dialog and personalize the online experience
4. **Content expertise**- credible subject matter knowledge and experience to share comments/questions that stimulate lively debate
5. **Personal characteristics**- able to adapt to different teaching situations and demonstrates a genuine excitement about online learning

The five facilitator skills provide an excellent overview of distance educator competencies. The educational community can use the facilitator skills in a variety of ways: instructional design specialists that are creating online curriculum materials help assist distance educator administrators who are recruiting online personnel, trainers of online faculty members who need guidelines to help them make accurate assessments and individual instructors who want to develop a professional development plan.

Recommendations for Change and for Future Researchers

As you prepare your presentation, take the time to consider the questions that those who might be skeptical of your findings and share recommendations for changes. Garofoli & Woodell (2003) relate, "why would some faculty be so skeptical when others have achieved great success and discovered new ways to increase learning outcomes? Why would faculty resist tools that can help them simplify their work?"(paragraph 2).

Action research can be an effective tool for promoting relevant changes within a school setting by informing policy debates and improving teacher research skills and practices.

A research project may:

- address gaps in knowledge by investigating an area of research that fills a void in existing information
- expand knowledge by extending research to new ideas and practices
- replicate knowledge by testing old results with new participants or new research sites
- add voices of individuals to knowledge, individuals whose perspectives have not been heard or whose views have been minimized in our society (Creswell, 2002, p. 4).

Solicitation of Audience Feedback

The audience can be a good resource for advice and feedback on your presentation and a forum to enhance professional knowledge and practices in today's classrooms. Naturally, researchers are somewhat anxious about the personal risks involved having their project being scrutinized by others. O'Brien (1998) relates, "one of the prominent fears comes from the risk to ego stemming from open discussion of one's interpretation, ideas, and judgments. Initiators of action research will use this principle to allay others' fears and invite participation by pointing out that they, too, will be subject to the same process, and whatever the outcome, learning will take place" (Risk, paragraph 1). Audience feedback can help individuals identify shortcomings or flaws in their research project which can be addressed in a future journal article or in future investigations. Dialog over

research results can provide the basis for a deeper understanding about current interpretations of educational practices and theories. Graduate students should be encouraged by the fact that their presentations will give others the opportunity to publicly affirm the positive elements and educational contributions of your work (Blaxter, Hughes & Tight , 2001)

Conference Speaking and Publishing Opportunities

The action research project can be a good resource for sharing valuable knowledge with the academic community. It is wise to investigate potential speaking opportunities at your school (i.e. staff development days), national and international conferences. Today's technology and educational conferences often provide Web sites with specific details about their expectations for papers. Conference leaders will post information describing their preferences for paper topics, targeted audience, word length of papers, style format, how to create graphs and charts, multimedia directions and the amount of time allocated for each presentation. The author recommends emailing one of the conference leaders with your presentation ideas to help affirm them or have information to modify your topic. This is an important step because competition for presenting papers can be enormous and you can greatly increase your acceptance rate to conferences by checking with individuals who are organizing the event.

As you explore various speaking opportunities, it is a good time to examine publication of your research results in journals, magazines and newsletters (print & online). The publication process requires diligence, persistence and a willingness to shape your material to target specific groups of readers. Additionally, editors appreciate writers who provide creative research articles and meet their deadlines. It is very important to cultivate good working relationships with editors who can assist you in sharing your ideas with the academic community (Muirhead, 2002).

Conclusion

Research presentations are excellent opportunities to demonstrate originality and inform others of valuable investigation findings. Contemporary educators appreciate quality work because it encourages improvement in educational practices, refinement of research skills and benefits a diversity of stakeholders.

References

Blaxter, L. Hughes, C. & Tight, M. (Eds.). (2001). *How to research* (2nd ed.). Buckingham, UK: Open University Press.

Calhoun, E. F. (1993). Action research: Three approaches. *Educational Leadership*. 51 (2). Available: http://ucerc:edu/teacherresearch/muhsdar0110-99.html

Creswell, J. W. (2002). Educational research: Planning, conducting, and evaluating quantitative and qualitative research. Upper Saddle Creek, NJ: Pearson Education.

Cryer, P. (2000). *The research student's guide to success* (2nd ed.). Buckingham, UK: Open University Press.

Garofoli, E. & Woodell, J. (2003). Faculty Development and the Diffusion of Innovations Syllabus. *Available:* http://www.syllabus.com/article.asp?id=7093

Hart, E. & Bond, M. (1995). *Action research for health and social care: a guide to practice*. Buckingham, UK: Open University Press.

Hill, M. D. (1997). Oral presentation advice. Available: http://www.cs.wisc.edu/~markhill/ conference-talk.html

Johnson, B. (1993). Teacher-as-researcher. Washington, D.C.: ERIC Clearinghouse on Teacher Education. (ERIC Document Reproduction No. ED 355 205). Available: http://www.ed.gov/databases/ERIC_Digests/ed355205.html

O'Brien, R. (1998). An overview of the methodological approach of action research. Available: http://www.web.net/~robrien/papers/arfinal.html

Muirhead, B. (2002). Writing for academic publication. *USDLA Journal*, 16 (12). Available: http://www.usdla.org/html/journal/DEC02_Issue/article06.html

Salmon, G. (2000). E-moderating: The key to teaching and learning online. London, UK: Kogan Page.

Research Advice for Today's Online Doctoral Students

Brent Muirhead

Muirhead, B. (2002). "Research advice for today's online doctoral students." *USDLA Journal*, 16 (6). Available: http://www.usdla.org/html/journal/JUN02_Issue/article03.html

Introduction

Distance education students are naturally anxious about completing their doctoral dissertations. The task is challenging because students must do the majority of the work apart from having face-to-face meetings with their committee members. The focus of this month's column will highlight ways to conduct an effective literature review.

Problem Formulation Stage

The problem formulation stage is the first step in the research process because it establishes the basis for the entire project. On the surface, identifying a problem to investigate appears quite simple because their area host of social, business, educational issues to study. In reality, it is one of the more difficult aspects of the research process. Students have an assortment of ideas about possible research ideas but are not sure what area merits their attention. Graduate students need to devote time to selecting a research problem that is significant because their study can have positive impact on their academic and professional life. Gay & Airasian (1996) observe that students usually start with a general research question. Then, they will need to devote time narrowing the focus of their investigation. Problem formulation can be frustrating because it sometimes takes awhile to identify a relevant educational or social issue that can be handled by students with definite time and financial restraints.

Research problems exist because people are perplexed about an issue (i.e. the problem of homeless people). Often, individuals believe there is not enough available information to answer their question. The absence of knowledge can lead people to study a topic. How do students become aware of educational or social problems that need further investigation? Merriam and Simpson (1995) state, "The process of problem identification involves refining and narrowing the topic of interest. This process can be helped along by reading widely on the topic, talking with other people, especially those who are familiar with the area, observing closely situations pertinent to the problem, taking notes as thoughts on the topic occur to you, and so on (p. 17)."

Conducting an Effective Literature Review

It is somewhat comforting to know that there are no formulas to creating realistic research problems. Rather, students should be encouraged to be use their creativity and common sense during their selection of a research problem. The literature review is a valuable opportunity to take a critical view of research studies that are related to your work. Leedy & Ormrod (2001, p. 70) highlight the benefits of a review of the literature:

- It will increase your confidence in your topic if you can find that others have an interest in this topic and have invested time, effort, and resources in studying it.
- It can provide you with new ideas and approaches that may not have occurred to you.
- It can inform you about other researchers conducting work in this area----individuals whom you may wish to contact for advice or feedback.
- It can show you how others handled methodological and design issues in studies similar to your own.
- It can reveal sources of data that you may not have known existed.
- It can introduce you to measurement tools that other researchers have developed and used effectively.
- It can reveal methods of dealing with problem situations that may be similar to difficulties you are facing.
- It can help you interpret and make sense of your findings and, ultimately, help you to tie your results to the work of those who have preceded you.

It is important to realize that the literature review is not just a summary or concise description of various studies. The review must identify vital relationships between different studies while showing how it relates to your project. Students can avoid writing a superficial review by using critical thinking techniques that reflect an in-depth of analysis of the subject matter. The Internet offers sites that have a diversity of perspectives and their credibility must be evaluated like printed materials. Browne, Freeman & Williamson (2000) note "there is no governing board or editorial staff whose responsibility is to ascertain that Internet sites well-informed conclusions or even truthful statements (pp. 395-396)."

An Example of Literature Review Material

The author has taught numerous graduate online research classes for the University of Phoenix. Students appreciate having concrete examples that help them understand important research principles and practices. The author has used the following example of a literature review on moral theories to provide insights into this vital research task.

Contemporary writers have heavily criticized Kohlberg's cognitive-developmental theory. Woolfolk (1990) notes that his stage theory fails to show how people make moral choices. Often, people will operate within several stages within a moral episode. Additionally, the sequence of stages reflects a bias for Western values such as individualism. Some cultures place a greater emphasis on family or group oriented decision-making. Feldman (1997) raises concerns that his theory does a better job of

describing moral judgments and struggles when predicting actual behavior. For instance, one experiment revealed that students who were considered to be operating in the postconventional stage (highest moral category), 70% of them were found cheating on a task. The study reveals that knowing what is right or wrong does not always translate into positive moral behavior. Woolfolk (1990) cites a research study of 1,100 high school students who gave three reasons for cheating: "too lazy to study, fear of failure, and parental pressure for good grades" (p. 108). Every moral developmental theory must deal with the fact that individuals can have ethical knowledge but choose to ignore it.

The studies cited demonstrated various dimensions of investigating moral theories. A valid and logical question for researchers is how can they evaluate moral development theories before encouraging others to use them in schools and business settings? Moral developmental literature contains an advocacy element that sometimes complicates the reader's ability to evaluate the educational merit of every theory. Individuals need to devote time and energy into studying the validity of moral development theories.

Thomas (1997) has done extensive investigations into analyzing moral theories by asking specific questions and here are several that are quite relevant:

Moral versus immoral: from what kinds of evidence and modes of investigation does the theory draw its substance?

Sources of evidence: what guidelines do the theory offer for deciding whether a thought or act is moral or immoral?

Moral development reality: what is the theories conception of reality?

Length of development: how is the length of a person's moral development calculated, and is such development more intense at one time of life than at another?

Personality structure: what components of personality are important for moral development, and how do these components function?

Directions, processes, and stages: how is the development defined in terms of directions, processes and /or stages of growth?

Individual differences: what sorts of differences between individuals are regarded as significant, and what are the causes of those differences?

Nomenclature: what terminology used in the theory is especially important?

Popularity: who subscribes to the theory and why? (pp. 3-4)

Tips on Writing Your Literature Review

Teachers need to remind their graduate students to always focus their literature review on the major purposes of their project. The brief example involving moral theories revealed that the writer had two primary goals:

1. Highlight problems or flaws with contemporary moral theories.
2. Stress the importance of analyzing moral theories to evaluate their strengths and weaknesses.

Students should always read research materials with a definite purpose in mind.. They must learn to discern what ideas and information are worthy of being put into their review. Then, decisions must be made about whether to briefly mention the information, include a more detailed discussion of the data or not mention the study in their review. Students should read information and note whether the articles have similarities or differences from their study (i.e. find a gap in the information). The reading process will provide the framework to clearly define the research problem by narrowing the focus of the study. Also, the investigation of materials might involve locating articles or a completed dissertation that might operate as a model for their project (Varerka & Fenn, 2001).

Yet, students should learn to integrate writing into their daily plans. Writing rough drafts provides another way of thinking through issues and reflecting upon the information. Students who delay their writing until they have completed their intensive reading of materials are risking the possibility of forgetting valuable insights (Asian Institute of Technology, 2002).

Students should have a basic plan to implement and effectively complete their review of the literature. The review should constantly remind the reader that the literature is related to the research problem. Leedy & Ormrod (2001, p. 84) suggest practical ways to develop a synthesize of diverse studies:

Compare and contrast varying theoretical perspectives on the topic.
Show how approaches to the topic have changed over time.
Describe general trends in research findings.
Identify discrepant or contradictory findings, and suggest possible explanations for such discrepancies.
Identify general themes that run throughtout the literature.

Conclusion

Today's online doctoral students must devise a relevant plan to conduct their dissertation research. The literature review is a key element in the research process. Ultimately, students should create a meaningful summary of studies that highlights their relationship to the research problem. A well-written review will provide new knowledge to the academic community and establish a basis for future journal publications.

References

Asian Institute of Technology (2002). Writing up research: Using the literature. Retrieved May 6, 2002 from the World Wide Web: http://www.languages.ait.ac.th/EL2 1LIT.HTM

Benard, B. (1993). Fostering resiliency in kids. *Educational Leadership*, 51, 44-48.

Browne, M. N., Freeman, K. E. & Williamson (2000). The importance of critical thinking for student use of the Internet. *College Student Journal*, 34 (3), 391-398.

Curwin, R. L. (1993). The healing power of altruism. *Educational Leadership*, 51, 36-39.

Feldman, R. S. (1997). *Development across the life span.* Upper Saddle River, NJ: Prentice Hall.

Gay, L. R. & Airasian, P. (1996). *Educational research: Competencies for analysis and application* (6th ed.). Upper Saddle Creek, NJ: Merrill.

Leedy, P. D. & Ormrod, J. E. (2001). *Practical research: Planning and design* (7th ed.). Upper Saddle River, NJ: Merill/Prentice Hall.

Merriam, S. B. & Simpson, E. L. (1995). *A Guide to Research for Educators and Trainers of Adults* (2nd ed.). Malabar, FL: Krieger.

Sockett, H. (1993). Can virtue be taught? *Educational Forum*, 60, 124-129.

Thomas, R. M. (1997). *Moral development theories---secular and religious: A comparative study*. Westport, CT: Greenwood Press.

Woolfolk, A. E. (1990). *Educational psychology* (4th ed.). Englewood Cliffs, NJ: Prentice Hall.

Selecting a Distance Education School

Brent Muirhead

Muirhead, B. (2002). "Selecting a distance education school." *USDLA Journal*, 16 (4).Available: http://www.usdla.org/html/journal/APR02_Issue/article05.html

Editor's Note: *Brent Muirhead, a frequent contributor to USDLA Journal, has agreed to write a monthly column featuring items of special interest. His criteria for selecting a cyber school are especially relevant to administrators, teachers and students.*

Introduction

Today's distance education schools are offering a diversity of undergraduate and graduate degree programs that are attracting students. Distance education schools are witnessing a rise in their enrollments as more people become aware of their academic opportunities. At the University of Phoenix, the current student enrollment is 41, 000 and they are taught by approximately 4,000 faculty members. Prospective students should have practical criteria to base their decision to attend a particular distance education school. Additionally, the selection process does foster thinking about the future of online schools their ability to effectively meet the challenges and learning needs of the 21st century.

Selecting a Distance Education School

The value of computer-mediated instruction for today's adult learners should be evaluated by considering basic questions about the teaching and learning process. It is important that prospective distance education students ask a series of questions that will help them evaluate whether computer-mediated education will meet their learning needs. Unfortunately, some students fail to take the time to explore the nature of distance education and either have difficulty completing their doctoral programs or drop out of school. For instance, students are given the freedom to make numerous educational decisions, such as selecting dissertation advisors, and the wide range of choices becomes a major problem for them. Their prior educational experiences did not prepare them for learner-centered educational settings because most contemporary graduate schools have program guidelines that restrict students in their capacity to personalize their course work. Then, when they enter graduate distance schools they become academically paralyzed because they do not have the mind sets and learning experiences to create and manage their own educational programs.

Frequently, prospective on-line students wonder about the academic credibility of today's distance education schools. It is a vital question that raises legitimate concerns about how well their degree will be received by prospective business and educational employers. The selection of a school is a major personal decision that requires taking the time to gather relevant information. The author suggests that prospective students should consider evaluating distance education schools using the following criteria before making a final decision:

- regional accreditation
- adequate learner support staff for technical and academic issues
- course titles that would be easily recognized by educators and business personnel
- financial costs for the entire program
- program flexibility
- learner-centered philosophy
- interaction promoted within the classes
- experienced faculty

The list of criteria highlights a variety of perspectives on the today's online schools that should help individuals examine potential schools. Yet, prospective students need to have realistic expectations about distance education programs. For instance, a growing number of traditional teachers are making the transition into the online classes. Naturally, schools will vary in the degree and rigor of training that their new instructors will receive. Therefore, they might have some classes where their instructor is learning about facilitating online classes. Ultimately, students will have to rely upon information that they gather from course catalogs, reading notes on school websites, discussions with admission personnel and perhaps an email note exchanged with the school's alumni.

The Future of Computer-Mediated Schools

This brief discussion on offering advice to prospective students reveals the fact that distance education schools are still evolving and experimenting in their quest to effectively meet student learning needs. Nichols (2001) outlines six essential features that should characterize future distance education schools:

- *Increased capacity and efficiency* – through enabling institutions to cater for the learning of a relatively large number of students at once
- *Improved effectiveness* – by encouraging deep learning approaches and the adaptation of knowledge to the real world
- *Easy accessibility* – by removing distance barriers and catering for a variety of learners' prior educational experience, physical abilities, and time commitments / lifestyles
- *A competitive mindset* – education with the potential to be offered internationally, within industry, and at a distance; providing more choice and convenience for the student

- *A resource-based emphasis* – enabling more student control over what, where, when and how they study and permitting non-linear learning; and
- *The personal touch* – with more interaction between students and between individual student and tutor, enabling a degree of customisation and the pursuit of individual students' learning goals in addition to the prescribed course learning outcomes (pp.13-14).

Distance education literature frequently mentions the need for research into interactivity. The subject of interactivity has generated controversy among distance learning professionals who raise questions about the quality of on-line courses. The computer-mediated debate has occurred because many educators believe that interactivity is a vital element in the educational process. Wagner (1997) stated, "distance learning practitioners --- particularly instructors and program administrators --- seem to view interactivity as the defining attribute of contemporary distance learning experience" (p. 19). Critics usually stress that interactivity is the missing element or ingredient in distance education because classes lack the traditional face-to-face interactions. However, distance education supporters claim that contemporary on-line classes contain effective interactivity learning experiences. Simonson (1995) argued that educators must strive "…to make the experience of the distance learner as complete, satisfying, and acceptable as that of the local learner" (p. 12). In fact, proponents state that interactivity in distance education is just as good as or even better than the traditional classroom (Wagner, 1997).

Distance educators view computer-mediated education as an excellent format designed to promote interaction with a diverse student population. On-line educators strive to create a democratic climate that encourages students to share their views and ideas freely. Students use written comments to share conceptual knowledge with their fellow students and professors. The process of reading and writing on-line promotes cognitive and metacognitive skills (Hannafin, Hill & Land, 1997). Students gain practical experience by translating their ideas into narratives that effectively communicate with other students. Writing is a powerful tool that offers numerous opportunities for students to display their depth of knowledge, organizational skills, reflective insights, and ability to explore new ideas (Greenberg, 1998; Repman & Logan, 1996).

The absence of face-to-face contact with professors and other learners raises concerns about the affective dimension of distance education. Effective communication between teacher and learner is essential to sophisticated learning experiences, and academic collaboration is a vital integrating factor that helps learners to successfully negotiate graduate school. Distance learners cultivate a host of faculty relationships. Rossman (1995) related that learners devote significant time communicating with professors during class assignments, during comprehensive exams and during the thesis or dissertation process.

The author's experiences as online instructor and research into interactivity (communication, participation, and feedback) have affirmed that both students and professors have communication problems. Students complained about classmates who were constantly late in posting on-line discussion forum comments because they felt that the late posters reduced the number of contributions and had a negative impact on the quality of academic discussions. Although the majority of learners observed that their teachers gave them feedback on their work, the educational problem involved teachers who did not provide consistent, timely, and relevant feedback. Therefore, both teachers and learners experienced some communication problems with computer-mediated education (Burge, 1994; Muirhead, 1999).

The communication problems that occur during on-line courses reveal that both teachers and students must be active participants who are consistently involved in relevant academic dialog. A student-centered learning model requires that both professors and students be prepared to take personal responsibility for their role in the learning process. New students who enter distance education programs should receive clear instructions about the importance of being proactive and self-directed. Administrators must create seminars, workshops, and educational literature that give students a clear picture of their role in creating sustained, two-way communication with their classmates and tutors (Sherry, 1996).

Conclusion

Contemporary academic advice for prospective online learners is somewhat limited by current state of research on distance education schools. Salmon (2000) observes the need to have a better working knowledge of what instructors and students do online. The online environment represents a new educational frontier that requires more investigation of the teaching and learning process.

References

Burge, E. J. (1994). Learning in a computer conferenced contexts: The learners' perspective. *Journal of Distance Education*, 9 (1), 19-43.

Greenberg, K. (1998). Assessing writing: Theory and practice. In J. H. McMillan (Ed.) *Assessing students' learning*, San Francisco: Jossey-Bass, 47-59.

Hannafin, M. J., Hill, J. R. & Land, S. M. (1997). Student-centered learning and interactive multimedia: Status, issues, and implications. *Contemporary Education*, 68 (2), 94-99.

Kearsely, G. (1995). *The nature and value of interaction in distance learning*. Retrieved from the World Wide Web march 10, 2002: http://www.gwu.edu/-etl/interact.html

Muirhead, B. (1999). Attitudes toward interactivity in a graduate distance education program: A qualitative analysis, Parkland, FL: Dissertation.com

Nichols, M. (2001). Teaching for learning: Designing resource based learning courses for the Internet age. Palmerston North, New Zealand: TrainInc.

Palloff, R. M. & Pratt, K. (1999). Building learning communities in cyberspace: Effective strategies for the online classroom, San Francisco: Jossey-Bass.

Repman, J. & Logan, S. (1996). Interactions at a distance: Possible barriers and collaborative solutions. *Techtrends*, 41 (6), 35-38.

Rossman, M. H. (1995). Negotiating graduate school: A guide for graduate students, Thousand Oaks, CA: Sage.

Salmon, G. (2000). E-Moderating: The key to teaching and learning online. London: Kogan Page.

Sherry, L. (1996). Issues in distance learning. International Journal of Educational Telecommunications, 1 (4), 337-365.