AN INVESTIGATION OF STUDENT PERCEPTIONS OF INSTRUCTIONAL STRATEGIES USED IN SYNCHRONOUS LEARNING ENVIRONMENTS

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ABSTRACT

Distance learning is one of the most rapidly growing innovations in higher education today. It has been instrumental in increasing student populations and in better serving the needs of existing students at many institutions. Faculty who prepare distance learning courses have the responsibility of delivering these courses with the same instructional rigor as on-campus courses. In this study, graduate level students were surveyed to determine their perceptions of the overall effectiveness of instruction in three distance learning classes. An item response and an open ended survey were administered to participants to evaluate the effectiveness of instructional strategies employed by the instructors and to determine the impact of technology in these courses. Findings from this research study as well as implications for educators will be presented here.

BACKGROUND

Distance education has become a reality in an era when universities are searching for ways to increase student populations and to better serve the needs of their existing students (Charp, 1999). This learning environment encompasses a combination of technologies, including television, videotapes, audiotapes, video-conferencing, email, telephone, fax, Internet, software and print (Merisotis, 1999). It has been speculated that this new form of learning will become a commonplace phenomenon in the next century and has the potential to create a new vision in education (Ben-Jacob, Levin, & Ben-Jacob, 2000). Some have even predicted a new role for teachers; one in which they will act more as social workers or guidance counselors to provide personal one-on-one tutoring and to teach collaboration and interpersonal relationship skills (Schank, 2000).

Should we, as educators, question these technologies and their use in education? Universities continue to add new technologies as they become available. Are we letting technology drive the learning experience? And, on a more individual level, where do teaching techniques come into play? The future may hold a different role for the teacher, but for now, effective instructional strategies are a large part of effective instruction. The literature on distance education includes numerous studies such as: student perceptions comparing online to traditional lecture class quality (Ryan, 2000), the achievement of students in distance education and traditional classrooms (Dominguez & Ridley, 1999), demographics of students taking online courses (Guernsey, 1998), staff training needs (Connell, 1998), support for faculty teaching (Bremner, 1998), and community and team formation in distance education classrooms (Berg, 1999). There is a more limited body of research on the effectiveness of specific strategies used in the distance education platform. Some of these discuss the shifts in social relationships (Newson, 1999) and accommodating diverse learning styles (Ross & Schulz, 1999; Diaz & Cartnal, 1999). And a few studies suggest the use of specific instructional strategies such as online student portfolios, self-guided online labs, class cybersociety, effective graphics, organized readiness, and the need to adapt instructional materials (Goodman, 1999; Powers, 1999; Grubb & Hines, 1999).

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METHODS AND RESULTS

In this study, two classes consisting primarily of elementary and middle grades' majors were enrolled in core graduate education courses entitled “Teacher as Leader” and “Connecting Learners and Subject Matter.” The third class was “Instructional Technology” and included students majoring in Instructional Technology. The technology was assessed at two levels in this open ended questionnaire by the graduate students. First, some students evaluated the effectiveness of the technology required to deliver the courses synchronously via satellite. The use of technicians on site was cited as an effective means of ensuring quality delivery of the course. “On several occasions, technology presented a problem because of delays in connections,” audio problems and CyberClassroom receptions. Students also commented on their use of technology in individual and cooperative group presentations. Power point, videos, Elmo, Internet, Dreamweaver, Flash, Director, Freehand, Fireworks, and Netscape Composer were cited most frequently. E-mail and websites were used to communicate intermittently throughout the semester. Technology was cited as “a must. Without technology there would be no DE.” Student comments clarified that the technology was critical to the effective delivery of the course and also concluded that video and audio problems “were not the instructor’s fault.”

For each of the three groups who participated in this study, the professor delivered the instruction from the university setting. In two of the sections, students were also enrolled at the university site. Although professors agreed to deliver the course from the university setting, one to four on-site visits were scheduled throughout the semester. When polled to this regard, students were extremely positive about the opportunity for face-to face interactions. Students at the university site unanimously felt an advantage over the distanced students because of the interpersonal relationships that developed via before and after class regarding class and personal activities.

Table 1: Results of Survey - Part I

Student reports of professors: N=56				
	strongly agree	agree	disagree	strongly disagree
Actively involved students	47	9	0	0
encouraged participation	49	7	0	0
respected students’ opinions	51	5	0	0
stimulated critical thinking	47	9	0	0
gave hands-on experiences	33	23	0	0
consciously planned for the instruction events	39	17	0	0
prepared lesson plans based on needs of learners	25	31	0	0
encouraged the expression of differing viewpoints	50	6	0	0
used active, interesting audio visual aids	29	25	2	0

Table 2: Results of Survey – Part II

Instructional Strategy	Use in Class N=56				Effectiveness
	no response	not at all	some of the time	most of the time	5-1 strongly agree to strongly disagree
Direct Instruction	2	4	9	40	4.18
Group Investigation	0	3	17	36	4.48
Cooperative Learning	0	1	24	31	4.49
Question/Answer	0	3	17	36	4.31
Reflective Thought	1	0	28	27	4.43
Lecture	0	7	20	39	4.22
Presentation	3	1	28	24	4.48
Group Discussion	0	0	39	17	4.40

OPEN ENDED SURVEY RESPONSES

Students entered a variety of responses in this category ranging from personal comments about the process of distance learning to specific assignments to the value of this university program.

SUMMARY

Distance learning offers opportunities for the adult market to achieve graduate programs from our universities. As professors, we are charged with the task of delivering course content without compromising its rigor. This presentation is targeted at educators who need to know how to effectively teach in these synchronous learning environments.

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