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Distance Learning: Issues and Concerns of Distance Learners

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Introduction

Problem

The process of converting a traditional classroom course into a course taught through other media such as CD-ROM or the Internet involves many issues. A survey administered to college students highlights the issues and concerns learners have with nontraditional course delivery methods. The authors are converting an undergraduate course into a CD-ROM based course and undertook this study to identify learner concerns.

Background

Successful conversion of course delivery method is not always guaranteed. Previous studies (Dominguez & Ridley, 1999) investigated the best practices to develop a new course delivery method. These studies describe the factors necessary during conversion. Factors mentioned by Dominguez and Ridley (1999) are mediating technology such as the Internet, different instructional approaches, and course content. Other factors according to Jarmon (1999) are:

- Principle student group or audience
- Instructor learning objectives for students
- Reason(s) for students enrolling in this course
- Type of distance delivery method used
- Effectiveness in providing equal or better learning outcome than that of a traditional delivery method

Some of these factors influence the concerns learners may have with distance delivery, such as the reason why a student is enrolling the course.

Distance education is becoming a good way to acquire knowledge separate from the traditional method of attending the classroom. Examples of the use of a variety of distance delivery methods, such as teleconferencing in Australia, show how useful distance delivery is around the world (Oliver & Reeves, 1996). There are also some courses taught at Northern Illinois University (NIU) in DeKalb, Illinois via teleconferencing. This example is closer to home. One of the first courses taught via teleconferencing at NIU was a graduate level course in human resource development and has been taught in this manner since 1995 (Neeley, Niemi, & Ehrhard, 1998). This exemplifies not only its use in higher education, but also its success by the continued use of teleconferencing to teach the course.

In the United States it was found by the United States Department of Education that many institutions that offered distance education courses in the fall of 1995 offered degrees and certificates by taking distance education courses exclusively (Matthews, 1999). It is predicted that more institutions of higher learning will be offering this means of acquiring a degree (Matthews, 1999). Distance delivery is, and will continue to have an impact on education in the years to come.

Purpose

Providing the student with the best possible scenario where learning outcome will be maximized is the goal of course development. This applies not only to traditional classroom courses, but also to distance delivery. One of many differences between traditional classroom courses and distance delivery is personal, physical

interaction, not only with the instructor, but also with fellow classmates. What effect does this have on learning outcome? This study identifies issues and concerns, which must be considered to develop a successful distance delivery course.

The Study

Methodology

The purpose of the questionnaire was to identify the issues and concerns students have about distance learning. There were 19 questions focusing on the following areas:

- Demographics
- Importance of interaction with instructor
- Learning outcome
- What group of student benefits most from a distance education course?
- Why does a particular group benefit?
- Differences between a traditional classroom course and a distance delivery course

Only 14 of the questions are examined due to unusable responses of the remaining 5.

The questionnaire was administered during Spring 2000 via convenient sampling to four technology classes from the School of Technology at Purdue University. The survey was not piloted to a smaller group of students, but was directly administered to students in the School of Technology. Of the 117 questionnaires handed out, 109 were returned, a 93.2 percent response rate. The questionnaire was based on answers to yes/no, qualitative, and five point interval-scaling questions. See Appendix A for an example of the questionnaire administered.

Summary of Findings

Demographics

A total of 109 questionnaires were returned. Of this total, 20 respondents were female (18.3 percent) and 89 were male (81.7 percent). Also, 9 were freshmen (8.3 percent), 22 were sophomores (20.2 percent), 21 were juniors (19.3 percent), 37 were seniors (33.9 percent), and 20 were graduate students (18.3 percent). All the respondents were technology students.

Interaction with Instructor

One survey question concerned instructor interaction. The questionnaire addressed the importance given to student and instructor interaction, which affects how well students learn. The implied definition of interaction was direct physical interaction like that observed in the traditional classroom. Communication via e-mail and chat rooms could have also been interpreted

Table 1: Interaction

	Number	Percentage		
Importance				
	2	1.8	1	not important
	5	4.6	2	
	21	19.3	3	
	44	40.4	4	
	37	33.9	5	very important
Total	109	100		

Table 2: Learning Outcome

	Number	Percentage		
Interaction	2	1.8	1	no effect
	7	6.4	2	
	22	20.2	3	
	41	37.6	4	
	37	34	5	great effect
Total	109	100		
Physical Presence/ Self-Motivated	0	0	1	a lot less
	10	9.2	2	
	56	51.4	3	same
	32	29.3	4	
	11	10.1	5	a lot more
Total	109	100		
Physical Presence	13	12	1	no effect
	29	26.6	2	
	41	37.6	3	
	24	22	4	
	2	1.8	5	great effect
Total	109	100		
Physical Presence Necessary	8	7.3		Yes
	101	92.7		No
Total	109	100		
Physical Presence/ Not Self-Motivated	42	38.5	1	a lot less
	39	35.8	2	
	21	19.3	3	same
	5	4.6	4	
	2	1.8	5	a lot more
Total	109	100		

as interaction. Face-to-face interaction with an instructor during regular office hours was also considered interaction.

Learning Outcome

Examined next is the effect on learning outcome (success in the classroom) by interaction with and by the physical presence of an instructor. Five questions dealt with this issue. The results (Table 2) showed that 100 of the total 109 (91.7 percent) felt that interaction with an instructor would have an effect on learning outcome. For physical presence alone, 101 respondents (92.7 percent) felt that it was not necessary for success in the classroom. Yet, 94 respondents (86.2 percent) indicated that physical presence affects their success in a class.

The last two questions dealt with instructor presence *and* self-motivation. The majority of respondents (see Table 3) felt they would learn less if they were not self-motivated and instructors were not present. Over 50 percent of students stated they would learn the same if they were self-motivated and the instructor were not present.

Benefits

Identifying who benefits most from distance delivery and why they benefit was examined in the next set of questions. Respondents were asked to respond with multiple answers in relation to each question resulting in more than 109 responses for each. For who would benefit most, a total of 305 responses were made with "full-time worker attending classes" being selected 91 times (29.8 percent). The respondents also had a choice of including any other possibilities. Respondents suggested other groups, such as athletes and the physically disabled, for who would benefit from a distance delivery course. Why a person would benefit from a distance education course received a total of 262 responses. "Other family or work responsibilities" was selected most at 100 (38.2 percent). See Table 3.

Difference: Traditional vs. Distance Education

Respondents were asked to rank the differences between traditional course delivery and distance delivery. The scale was according to importance, one having the most importance and six the least importance. The order in which possible choices were ranked was not of importance in this question. The rankings provided by each respondent for each difference was what was being examined. Results can be seen in Table 4.

The primary choice for most important was "interaction with instructor" with 40 out of 107 (37.4 percent) responses. The second most important was again "interaction with instructor" with 33 of 116 (28.4 percent) responses. "Interaction with classmates" was next in most responses with 24 of 116 (20.7 percent). Third was "time expenditure" with 24 of 106 (22.6 percent) responses. Fourth was "instructor presence" with 21 of 102 (20.6 percent) responses. Fifth, "time expenditure" again had the most responses with 31 of 101 (30.7 percent). "Individual effort" was next in most responses with 23 of 101 (22.8 percent). Of least importance and a sixth ranking was "instructor presence" with the highest percentage at 27.9 (29 out of 104 responses). "Individual effort" and "interaction with classmates" were next in most responses with 20 of 104 (19.2 percent).

Table 3: Benefit-Who and Why

	Number	Percentage	Choices
Who			
	80	26.2	Single parent
	57	18.7	Executive
	91	29.8	Full-time worker…
	52	17.1	Farmer
	25	8.2	Other
Total	305	100	
Why			
	80	30.5	Poverty of time
	75	28.6	Location convenience
	7	2.7	Laziness
	100	38.2	Other family/work responsibilities
Total	262	100	

Table 4: Ranking of importance factors on traditional and distance education

Ranking	1	2	3	4	5	6
Instructor presence	14	11	16	21	15	29
Interaction w/ classmates	12	24	23	14	13	20
Interaction w/ instructor	40	33	13	11	7	2
Course materials	15	22	20	20	12	17
Time expenditure	8	11	24	16	31	16
Individual effort	18	15	10	20	23	20

	Percentage of responses					
	most important					least important
Ranking	1	2	3	4	5	6
Instructor presence	13.1	9.5	15.1	20.6	14.8	27.9
Interaction w/ classmates	11.2	20.7	21.7	13.7	12.9	19.2
Interaction w/ instructor	37.4	28.4	12.3	10.8	6.9	1.9
Course materials	14	19	18.9	19.6	11.9	16.4
Time expenditure	7.5	9.5	22.6	15.7	30.7	15.4
Individual effort	16.8	12.9	9.4	19.6	22.8	19.2

Other

Respondents were also asked to answer whether they had ever had any experience with a distance education course. Of the 109 responses only 10 (9.2 percent) answered yes. At the end of the survey respondents were asked to comment on any concerns that they might have on distance education which were not included in the survey questions. Respondents who had experience with distance education had more concrete suggestions and comments directly related to delivery of a course via distance delivery than those who had none.

Concerns included feedback to students regarding work completed, honesty of students(s), lack of organization, technical issues, lack of hands on experience, and instructor accessibility for student questions. Many respondents liked the idea of distance education and mentioned the possibility of no longer having to revolve their life around school hours. Others commented that it would not be a good idea for many people who are not self-directed or self-motivated and need to have interaction through the classroom.

Conclusions

The goal of this study was to identify issues and concerns that technology students have with distance education. An issue identified was interaction with an instructor. Respondent responses showed this to be very important for learning. A similar issue was interaction with classmates.

When developing a distance delivery course, course designers must provide a way for students and instructor to interact. Possible approaches suggested by respondents were chat rooms, a toll-free number, and once a week physical meeting in a classroom. On the other hand, respondents who had experience with distance education mentioned the confusion involved with chat rooms and the ineffectiveness concerned with a physical meeting. But they also stated that these could have been effective had they been organized and implemented in a better way. Classmate interaction is also important. The sharing of ideas helps in the understanding of the course material. In this survey students did not state any ideas about possible means to accomplish this interaction.

Another issue identified was that distance education does not work for everyone. Through the questions involving instructor physical presence and self-motivation, most respondents felt that without self-motivation the success in a distance education course would not be good. In other words, the respondents believe that students who would be best suited for a distance education course are ones who are self-directed and self-motivated. This leads to the questions involving who benefits and why. The list of choices provided for who benefits were people who had other responsibilities in their life besides school such as work and family. What does this have to do with self-motivation? For adults with other responsibilities, time is a precious commodity and self-motivation determines how well available time is managed.

One possible concern with this study was that almost 90 percent of the respondents were male and all the respondents were technology students. However, this is fairly typical of the demographics of our current technology students. If the study were done with students from another field of knowledge, the results could be different. In fact, our results might even be more relevant since other fields typically have a higher percentage of female workers, a group that is said to benefit greatly from distance education in the future. Since the study was done to aid in the conversion of a technology course the authors felt that the results were valid.

Areas of Further Research

An important find in the study was that although learners felt that their success in the course would be positively affected by the presence of the instructor, they felt that the presence of an instructor was not necessary. Future studies on addressing this phenomenon of needing an instructor present but not wanting her would be of interest.

Also, since the study was only done with technology students, it would be interesting to compare results from other fields such as education where there is predominantly female gender disparity.