

PERCEPTIONS OF DISTANCE LEARNING: A COMPARISON OF ONLINE AND TRADITIONAL LEARNING

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Abstract

Universities have long experimented with different learning environments to accommodate the needs of their students. Along with the traditional classroom, we have seen the use of correspondence courses, courses on tape, televised courses, and most recently internet-based distance education. Utilizing a 22-question survey with 217 respondents, who were primarily adult, part-time students enrolled in criminal justice courses, this research examined why students chose distance education, and student perceptions of the quality and difficulty of those courses as compared to courses taught in the traditional classroom. The data indicate that students strongly prefer distance education, largely because it allows them to balance their other commitments more easily. Respondents also perceive that they achieve higher quality educational outcomes in the distance learning environment. They do not believe that they sacrifice a quality education for the convenience of utilizing distance learning. While distance learning may be most appropriate at colleges and universities with large numbers of adult learners, commuters, and part time students, there may be some educational advantages for institutions to integrate some of the best aspects of distance learning into traditional courses to build a "hybrid" learning environment.

Introduction

Distance learning programs are generally designed to serve an off-campus population. These programs provide access to higher education for students who cannot attend traditional courses due to employment, marital status, family responsibilities, distance, and expenses incurred with traditional education. It also provides a cost-effective means to serve large numbers of students in any area. Distance learning is not new in many universities. Correspondence courses comprised the first generation of distance learning, using traditional printed material and communication via post and telephone (Southworth, Flanigan, Knezek, 1981). Second generation distance learning included audio recordings and radio and television broadcasts (Southworth, et al., 1981). Televised and taped classes for students whose classes were in large lecture halls were offered by many major universities twenty years ago. These lectures were taped and placed in libraries for students to review and thus some students chose not to attend class

because of this convenience. Some colleges used television courses where a local station would broadcast the course in the evening and students could tune into it at that time. One of the earliest uses of radio and television technology for the purposes of education was implemented by Australia's "Alice Springs School of the Air" (http://www.assoa.nt.edu.au/how_it_began.html). In 1951 this organization began broadcasting lessons to students in the relatively isolated areas of Central Australia three times per week. The service continues to operate today and has now integrated Web-based technology into its curriculum to increase interaction among students and teachers.

Early research done in this field examined these video and/or telecourses. Between 1983 and 2002, many courses were turned from lecture courses into telecourses (Bisciglia & Monk-Turner, 2002). Telecourses are generally defined as courses where the professor lectures in one classroom, and that lecture is then transmitted to a studio or classroom where another group of students is watching. Telecourses are often used when a university markets a program to the military. The course may be at one campus and transmitted via satellite to another off-site location such as a ship or base. Student attitudes towards these telecourses were positive according to Sounder (1993) and Wong (1990). Their research in this area found that students were less likely to think that there was a difference between a traditional and distance learning course. Perhaps this was because students were actually viewing the professor giving a lecture and many felt that it was just like being in class. Students also felt a greater level of connection with the instructor and those enrolled in the traditional classes, perhaps here again because they could see and hear the class lecture and view the interaction between the instructor and students, thus making them feel that they truly were part of the group. However, Beare (1989) found that students disliked distance learning and had feelings of jealousy towards traditional in-class students, perhaps because of their connection and interaction with the instructor.

Introduction of the World Wide Web

Both the first and second generations of distance learning delivery methods were designed primarily to produce and distribute learning materials as efficiently as the technology of the day permitted without any attention to the lack of interactive communication between students and teachers (Katz, 2002). However, as technology changed and the Internet and Web-enhanced courses took over, research has overwhelmingly reported that students as well as faculty enjoy the distance learning environment. As a result of the development of enhanced third generation distance learning systems that include interactive video, email, and World Wide Web technologies, distance learning has been redefined to include teacher-student interaction (Katz, 1998, 2000; Trentin, 1997). According to Bisciglia & Monk-Turner (2002), students who work full-time and attend class off-campus have a more positive attitude toward distance learning when compared to others. They are also more likely to be motivated and willing to take other distance learning courses when given that option. Bisciglia & Monk-Turner (2002) believe that, because distance learning programs are designed to serve an off-campus population, these distant students will be more enthusiastic about this type of learning environment. Such feelings are not always shared by their on-site peers (p. 38). In 1996, Forbes Magazine estimated that 55% of all four-year colleges and universities in the United States offered courses off-site (Bisciglia & Monk-Turner, 2002). While Beare (1989) found that jealousy existed between telecourse students and traditional students, Sounder (1993) found totally the opposite. He found that telecourse students at a distant site perceived a greater level of connection between the professor and the students than those enrolled in the traditional class (Sounder, 1993, p. 45-46).

When reviewing the literature to determine what types of students enroll in distance learning courses, Kahl & Cropley (1986) found that the individual who is typically enrolled in a distance-based education system will be a married, nontraditional student who is most likely in the educational environment by choice. Further, the majority of those enrolled were female and between the ages of 25 and 40 years of age (Peruniak, 1983; Hiola & Moss, 1990).

Pros and Cons

The benefits and drawbacks of distance education have been researched by various individuals. Wheatley & Greer (1995) saw the primary benefit of distance education as saving travel time, given that students do not have to travel to and from a home campus. With Web-based courses, the instructor also does not have to travel and can work from home. Another benefit is that students can work on the class according to their own schedules. It was found that teaching costs may be reduced in two ways: first, because different campuses can utilize the same instructor as a resource for a telecourse, and second, with some Web-based courses an instructor can handle a larger number of students, ultimately reducing the overhead costs of faculty (Wheatley & Greer, 1995, p. 243). Further, in fields where information is constantly changing, the use of distance learning allows professionals the ability to remain current without having to travel long distances to do so (Bisciglia & Monk-Turner, 2002). There are also some drawbacks to this type of education. Baker (1986) suggested that students may have problems comprehending course information that is technical, quantitative or scientifically oriented. Also, course expectations are often not clear, and because of the physical separation between the instructor and student, problems may be difficult to resolve. Unlike the traditional classroom, distance education does not allow instructors to modify lecture plans on the basis of moment-to-moment feedback from learners, which may affect how a student experiences the distance learning environment (Cropley & Kahl, 1983, p. 33). It is also possible that the limited interaction between students and instructors impacts the overall learning experience. However, it is difficult to measure what a student learns in a classroom from the interaction and discussions that occur.

Attitudes towards Distance Learning

When comparing the attitudes of instructors and students towards distance learning, it was found that instructors had conflicting attitudes about distance education. While they were willing to teach a distance learning class, they rated the courses as equal or lower in quality than traditional courses taught on campus (Inman, Kerwin, & Mayes, 1999). The students, on the other hand, were highly satisfied with these instructors and the distance courses taught. The students were not concerned about the interaction with the instructor. Drennan, Kennedy, and Pisarski (2005) found in a recent study of 250 students that student satisfaction is influenced by positive perceptions toward technology and an autonomous learning mode. Consequently, students may react differently to the online learning environment, depending on their skill levels and attitudes. Clark (1993) found that those instructors who favored distance learning were those that were more familiar with the educational technology. Haas and Senjo (2004) studied 187 faculty members at various universities in the state of California system and found that while most held positive views towards the use of technology, far fewer were actually integrating technology-based methods of instruction into their courses. Overall, support for the integration of technology into criminal justice education appears to be greatest when it is used as a supplement rather than a replacement for face-to-face instruction. Passig & Levin (2000) found that when using multimedia approaches, the student not only studies the subject matter but also learns how to deal with the synthetically programmed environment. It has been found that with the interactivity available in many distance learning approaches today, students are able to be actively engaged in the learning process.

Much of the research previously conducted favors distance education; however, in much of this research, only distance learning students were sampled. To achieve a more realistic picture of how students perceive distance education, it is important to question students who have participated in both traditional and distance education. This research will address this issue by comparing student perceptions of course quality in both distance and traditional courses.

Major Research Questions

As colleges and universities continue to pour resources into the distance learning format, it is important to understand how students respond to taking courses online. This study addresses three main research questions:

1. Why did students choose distance (DL) rather than traditional learning (TL) formats?
2. Were the educational outcomes (as measured by grades and perceived “amount” of learning) different between DL and TL?
3. What were the student perceptions of overall course quality in DL versus TL?

While the convenience of taking online courses might lure some students to try distance learning, it is unlikely that they will continue to take courses in the DL format if they do not perceive that the courses are of high quality. Similarly, they will be unlikely to return to the online environment if they perceive that they have not been successful, as measured by their grades and their perceptions of whether or not they “learned something”.

Data Collection

The data for this study were collected with a 22-question survey developed by the authors. The original questionnaire was tested in a pilot study of 25 respondents after which revisions were made to clarify several questions. The data were collected over a 12-month period from August, 2004, to August, 2005.

The questionnaires were distributed to students enrolled in various undergraduate criminal justice courses that were taught in an online format. Surveys were completed through Blackboard and submitted to the instructor. Students who completed the survey were given extra credit towards their grade in the class. As a result, the data collection process was not completely confidential. However, all names and identifying markers were removed from the questionnaires before they were passed to the researcher who performed the coding and data entry. In order to participate in the survey, students must have taken both DL and TL courses. They did not have to be enrolled in both formats at the time of survey completion but they had to have some current or prior experience in a traditional classroom. As the surveys were being distributed to online classes it was evident that all of the students were familiar with the DL format. The response rate to the survey was close to 80%.

Data Description

Surveys were completed by 217 students. Generally, the questionnaires were completed fully and accurately. Missing data were coded as a value of 9 or 99 and were excluded from any analyses.

Demographic Variables

Table 1 indicates that the average age of students in this sample is 31 years. While this is older than the average undergraduate student, the university from which the sample was collected caters to adults who are employed full-time and attending school in the evenings and on weekends on a part-time basis. The sample was fairly evenly split between the genders with slightly more men in the sample at 55%. Caucasians dominated the sample at close to 60%, followed by African Americans at 27%. Almost 9% of the sample labeled themselves as “other” indicating that perhaps future research should improve the race/ethnicity descriptors. Almost three-quarters of the sample reported that their major was criminal justice. This is not surprising

as the sample was drawn from students in criminal justice classes. This is certainly a limitation of the study, but at the same time we have no a priori reason to expect that students in the field of criminal justice would view DL versus TL classes dramatically differently than students in other disciplines.

Table 1. Variable Labels and Descriptive Statistics

VARIABLE LABEL	PERCENTAGES	N
Age	31 years (mean)	217
Gender	55% Male 45% Female	216
Race	59% Caucasian 27% African American 5% Hispanic 9% Other	216
Major	72% Criminal Justice 18% Psychology 5% Computer Science 4% Business 1% Other	216

Data Analysis

Why did Students Choose Distance Learning?

One key element of this study was to determine why students were drawn to the DL format. Students were given several options to choose from and were told that they could choose as many categories as they felt applied to their situation. Table 2 indicates that the majority of students chose DL because they had other commitments that limited their ability to take classes in the traditional format. These other commitments varied from long hours at work, to shift work, to travel schedules required by their jobs, to family issues such as obtaining childcare. Nearly 20% of the students indicated that they were compelled to take their classes through distance learning because there were limited offerings of their required courses in the classroom. In other words, students in this category may not have chosen DL if the classes that they needed had been available in a traditional format. Almost 6% of the respondents said that they chose DL because they thought that it would be “easier” from an academic perspective. Finally, almost 4% of the students cited other reasons for choosing DL. Some said that they had heard a lot about it and just wanted an opportunity to “try it out for themselves”. Others said that they enjoyed the more self-paced instruction provided by DL. Interestingly, several students said that they were very nervous when speaking in class but felt much more comfortable participating through the online discussion board; because of this, they felt more involved in the class. While this is certainly a great opportunity to get students involved in class discussion who may otherwise not participate, it does not necessarily help them to overcome their fears of speaking in public.

Table 2. Why Students Choose DL

REASON FOR CHOOSING DL	PERCENTAGE
Other commitments	88%
Choices of traditional classes were limited	20%
Though DL would be "easier"	6%
Other reasons	4%

Student-Reported Educational Outcomes

Students were asked to evaluate several learning outcomes under the DL format and the TL format. Table 3 demonstrates that well over half of the students (59%) reported that their grades were higher in the DL format than in the TL format (32%). Six percent reported that their grades were about the same under both DL and TL. According to the students in this sample, 57% reported that they believed that they learned more under the DL approach. Almost 70% said that, in general, they prefer taking DL courses to traditional courses. Fifty-seven percent of the respondents also reported that they believed that the exams they took in DL were "easier" than those in the traditional environment. This could be a function of many things. Many DL exams are administered online through Blackboard and therefore are essentially open book exams. This may give students an increased level of confidence when completing an exam. Also, taking an exam in one's home provides a more relaxed atmosphere than the traditional proctored exam setting. And, in many cases, online exams are not timed, which reduces the stress for many students who have lower levels of reading comprehension. Finally, over 90% of students reported that they read the assigned textbook in their online courses while, unfortunately, less than 60% reported that they do so in their in class courses. It seems that students rely heavily on the instructor to "feed" them the required material when they attend lectures and do not feel that they need to reinforce or supplement lectures with the assigned textbook readings.

Table 3. Student-Reported Educational Outcomes

EDUCATIONAL OUTCOME	PERCENTAGE
Grades	Higher in DL – 59% Higher in TL – 32% About the same – 6%
Where did more learning occur?	DL – 57% TL – 41% About the same – 2%
Preference for DL versus TL	DL – 69% TL – 31%
Exams easier	DL – 57% TL - 42% About the same – 1%
Read Text	DL – 92% TL – 57%

Student-Reported Quality Measures

Students were asked to evaluate several statements related to the quality of their courses under both DL and TL. They were also asked to report a measure of perceived overall course quality under both learning formats. T-tests were performed to determine whether or not there were statistically significant differences in student perceptions of the quality of DL versus TL courses. In each case, there were statistically significant results indicating that students perceive that DL courses are of higher quality than TL courses.

Table 4 indicates that students reported that they spent significantly more time on their DL courses per week than their TL courses (13 hours in DL as opposed to 11 hours in TL). Students reported that they felt that their textbooks and any additional materials provided by the instructor (such as PowerPoint slides, notes, and handouts) were much more useful in DL classes. This is not surprising as it would be expected that, for students not receiving a lecture each week, any additional materials would be helpful, and the textbook would be essential for success. In addition, students indicated that they believe DL classes are not only more difficult than the TL courses, but overall they perceive them to be of higher quality than their TL counterparts.

Table 4 – Student-Reported Quality Measures

VARIABLE	MEAN – DL	MEAN – TL	T- VALUE	N
Time spent on courses	13 hours/week	11 hours/week	3.75***	184
Usefulness of textbook ^a	4.53	3.84	7.72***	168
Usefulness of additional materials ^a	4.09	3.76	2.54**	165
Overall course difficulty ^a	3.78	3.49	3.07***	178
Overall course quality ^a	4.03	3.81	2.21**	179

P<.05; *P <.01 (2 tailed test)

^a Measured using a 5 point Likert scale (1 is low; 5 is high)

Tests were conducted to determine if there were any differences in perceptions in any of the educational outcome measures or any of the measures of course quality based on gender or age. No significant differences were found in any of the variables.

Educational Implications

Students in this study clearly preferred DL courses to the traditional learning environment. The following list summarizes the main findings of this research.

Students reported:

1. Higher grades in DL
2. They believed that they “learned more” in DL
3. DL exams were easier
4. They spent more time on DL classes
5. They found additional instructor materials more useful in DL
6. They found the text more useful in DL
7. DL classes were more difficult
8. They perceived that DL classes were of higher quality

It is important to remember that these conclusions are based on self-reported data and we do not have supporting documentation of actual grades, actual time spent on classes or actual usage of the textbook. However, as we are trying to assess student preferences for distance learning courses, student self-reports are the best means of measurement.

Quality versus Convenience

As previously mentioned, the sample used in this study was drawn from adult learners with full-time employment who attend university in the evening and on weekends. We speculated that convenience alone might sway these students to prefer distance learning and that they might be sacrificing a quality education for this level of convenience. However, these results indicate that students believe that these DL courses are more difficult than their TL counterparts, that they spend more time studying for DL than TL courses, and that overall, DL courses are of high quality. Therefore, it does not appear that students see DL as a low quality alternative to the traditional learning environment. They do not have to choose between quality and convenience.

Conundrum of online examinations

Students in this study reported that the exams in the DL format were easier than the exams in the TL format. Does this likely reflect the use of more online exams in DL where there is often access to books and notes and unlimited time instead of the traditional closed book, timed exams delivered in the TL format? Or, is it a function of the more relaxed test taking environment which puts students more at ease when completing an exam in their homes? Or, is there another alternative? Do these results reflect the fact that students reported that they learned more in the DL environment? There are certainly many possibilities to be considered. It is possible that more frequent use of open book exams in DL classes explains, at least in part, the higher grades reported in DL classes. Should we insist on some use of closed book, proctored exams in every course? Is this feasible in all situations? The main issue to consider is whether they are necessary. If our desired educational outcome is academic learning, and students currently report that they feel they learn more in DL, then perhaps open book online exams do more to facilitate the learning process than do traditional exams. It is important to remember that students also reported that their DL classes were more difficult than their TL classes, which also reinforces the fact that these DL classes, even with open book exams, were not considered by most to be an "easy alternative".

Enriching the Learning Environment

As discussed above, the results of this study show that the majority of students report higher grades and that more effort is put forth in DL. By requiring students to take a more active role in facilitating their own learning, DL may be enriching their learning environment in the same way that we enrich jobs in the workplace (Hackman & Oldham, 1976). By adding task variety, task identity, task significance, autonomy, and feedback to the learning process, we have generated outcomes such as higher levels of motivation to learn, higher levels of satisfaction with the educational process, and higher quality performance.

Rather than simply eliminating one element of the learning environment (interaction in the classroom), the DL process may at the same time be adding significant motivating factors to the environment. Instead of sitting in class taking lecture notes, students have access to software such as Blackboard where they can participate in discussion boards and chat rooms, monitor announcements, watch PowerPoint presentations, and in some cases watch streaming video and other high tech communication techniques. Task identity may not be demonstrably different between the two learning formats; however some argument could be made that when a DL student studies the required weekly material, takes an exam and immediately receives his or her results, the student will more clearly identify the quality of the preparation of the material with the outcome of the test. Task significance is enhanced as students recognize that without their contributions on the discussion boards and chat rooms, the quality of the process will deteriorate. Students have much more autonomy in DL as they can choose to engage in the learning process at a time that is convenient for them rather than at a time that is convenient for the school. Similarly, in the DL environment students generally receive feedback on a more regular basis. Online quizzes are graded by the software system and results are known immediately. Grades

for discussion boards are usually posted on a weekly basis. Students do not have to wait from class to class to ask questions as instructors monitor discussions and email and are often required to respond within 48 hours.

Hackman & Oldham (1976) argued that one key element in the success of job enrichment was the importance of growth need strength. Individuals with a high need for personal accomplishment, learning, and personal growth and development are more likely to respond to an enriched environment. The results of this study show that students consistently reported that they “worked harder” in their DL than in their TL classes. This was reinforced by several facts: they spent more time on DL classes; they were more likely to read the textbook in a DL class; they found the text to be more useful in DL; and they reported earning higher grades in DL. These results seem to indicate that students were more motivated to learn in the DL environment. It is possible that these results could be reflecting a selection phenomenon. Students who choose DL classes may be more self-disciplined and more self-motivated than those who choose TL classes, as they recognize that they will be expected to work more independently in these classes. As a result, they put forth more effort in the DL environment. However, because we asked students to compare their performance in DL to their performance in TL, we would assume that those high achieving students would be strong performers in both formats. Nonetheless, the results still show that the majority of students report earning higher grades and putting forth more effort in DL. This may be an indication that those students who choose DL have higher growth need strength and therefore react more favorably to the enriched learning environment.

Concluding Observations

While the results of this study certainly provide considerable support, at least from a student perspective, for the continued implementation of DL courses, we certainly do not anticipate the end of instruction in the traditional classroom. Our research indicates not only that many students prefer DL, but also that there are many students who still enjoy classroom instruction. And, if our proposed model of an enriched learning environment under DL holds true, it is also true that not every student will flourish in such an environment if he or she does not have a strong need for personal growth and development. Distance learning may be most applicable to an older student population or to commuter campuses rather than to the traditional undergraduate population of 18-to-21-year-old on-campus students. Our results indicate that DL is appealing, at least initially, because it is convenient for students who must manage numerous other personal commitments. This is generally not the situation for younger students who are living on campus and are immersed in university life. That is not to say that DL could not benefit such students to some extent, but it is unlikely to be the primary source of their education.

Perhaps there is some room for the introduction of more “hybrid” courses into the learning curriculum. These types of courses are taught approximately 50% online and 50% in the traditional classroom. This may encourage students to take charge of their own learning experience, make full use of their resources (texts etc.), work at their own pace, and provide some scheduling flexibility (the best of DL), while also providing an occasional live forum for face-to-face discussions with the instructor and the rest of the class members to build a stronger learning community (the best of TL).

Of course, there are limitations to this research. Our sample was relatively small (217 respondents), all of the courses surveyed were from one field, the students were primarily adult learners, we relied on self-reports, and our data lacked a certain degree of confidentiality. It is likely that these shortcomings can be overcome in future research. In the meantime, these findings do provide meaningful insights into student perceptions of their experiences in the distance learning environment.

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