

Online Courses: An analysis of student satisfaction

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Abstract: The purpose of this study was to determine if existing student or instructor technological abilities affect student perceptions of differences in distance and traditional learning classes. Participants of this study were 57 students who were enrolled in at least one distance learning course in the Spring and Summer semesters of 2005 in a small liberal arts college on Long Island. Using Pearson Correlation method, the study results indicated there is no relationship between a student's perspective of their technical abilities and their satisfaction with online courses, however their perception of their instructor's technical abilities did affect their sense of satisfaction. Student sense of satisfaction with the distance learning experience was not as high as traditional classroom experiences largely because of social interaction issues.

Purpose of Study

Do students enjoy an on-line course more or less if they start the class with limited or advanced technological skills? As institutions of higher education progress into the 21st century, they are faced with adapting to the needs of students in a changing employment environment and the fiscal challenges of brick and mortar institutions. One method of delivering course content other than traditional "students in chairs in class" is to provide distance learning classes. This has the potential to provide course content that meets student scheduling needs, increases the geographical recruitment area for the institution, reduces institutional facility needs, and decreases student travel requirements.

Vital to any institution is customer satisfaction. Did the student enjoy the experience? As they entered the classes with technological skills of various degrees, did there appear to be a correlation of their skill with satisfaction? Did the instructors' skill set affect the students' satisfaction with the on-line courses?

Literature Review

The challenge of distance learning is student acceptance of what might be perceived as a change in teaching methods. If student perceptions of distance learning courses are less than positive, then future enrollment may be curtailed. "Additional evidence of dissatisfaction with online learning can be seen in the high rates of attrition of online students." (Lin, Lin, Laffey 2008) Reduced enrollment for the institution is viewed less than positively by administrations, whose goals are usually to maintain or increase registrations. As distance learning courses are viewed as providing options that allow persons who may not have become students because of reasons that are mitigated by distance delivery, then reduction of program offerings provide less opportunities for formal educational advancement. "Another example of the ways in which online learning can contribute to an institution's vitality has to do with its ability to enhance diversity among its student body." (Ebersole, 2008)

Distance learning takes many forms and can also be referred to as online courses. These can include but are not limited to Blackboard Learning Environments (www.blackboard.com), internet based informational exchanges, simulations, videoconferencing, and telephone based variations of class content delivery. "When the opportunity to learn is brought to students when and where they can most effectively engage with the subject matter, their ability to complete their education at a pace more amenable to their individual life situations is enhanced." (Ebersole, 2008) Recorded classes are another form of distance learning. The professors are mixed about the process. Some feel the recordings have led to fewer dropouts and grades are up. Many professors worry that as soon as recordings are available, classroom seats will collect dust. Some of the professors at the University of Central Florida have told their students that if attendance drops by 70%, they are not going to record anymore. (Young, 2008) Canadian medical students use Homer (<https://homer.med.ualberta.ca>), an online learning system. They log in with a single password and link to schedules, class notes, slides, online libraries, learning games, journal articles, and also access their e-mail, Facebook (www.facebook.com), and other networking tools. Homer is different than Blackboard because it gives students a chance to use their own quizzes, questions, and study tips. Students receive learning objectives for each part of the curriculum and have to decide for themselves how to meet those goals. Choices include lectures, small-group discussions, printed materials, videos, or a combination. "That's the way young people learn today. They're used to YouTube (www.youtube.com) and rapid images, and someone standing up

lecturing or showing slides of images no longer gets their attention,” says M. Brownell Anderson, Senior Associate Vice President in the association’s division of medical education. (Mangan, 2008) Gulati addressed whether students should be required to participate in on-line discussions. He notes that people have different learning styles. He states that some people learn but do not participate in discussions, thus activity is not correlated with learning. Gulati postulates that some learners may choose silence because they feel uncomfortable in putting their opinions out in the open, while some may feel unconfident in challenging others’ views. Nevertheless, they may opt for a safe learning zone through silent reading. The analysis does call for online course developers and facilitators to develop a deeper understanding of the constructivist view and give a greater consideration to issues of trust, safety, and power when designing learning experiences. Gulati, 2003)

Instructors believe learner performance is tied to instructor actions focused on course content and feedback. Learners focus on communication needs and being treated as individuals as most important. (Russo and Campbell, 2004) Students liked instructor responsiveness (answering e-mails and providing feedback) and message tone or style affected student perceptions of presence. Students liked seeing a photo and hearing the instructor’s voice, feeling it gave them a greater connection to the instructor’s real world presence. Concannon, Flynn, and Campbell (2005) found that online learners want an instructor who addresses them as individuals and offers supportive communications. Mazzolini and Maddison (2003) found that increased instructor posting did not result in increased student participation. In fact, as the instructor became more involved, student messages became shorter, and more infrequent. Dennen, Darabi, and Smith (2007) found that timeliness was more important to students than the extent of the feedback. Satisfaction is a component of motivation (Keller, 1987) and should not be overlooked, particularly in an instructional medium, where motivational issues can be critical success factors (Dennen & Bork, 2007). Conclusions for instructors are: Maintaining frequency of contact, having a regular presence in class discussion spaces, making expectations clear to learners. Dennen, Darabi, and Smith (2007)

In his dissertation, Thomas Franza (2006) looks to address the technological abilities of the students and instructors to determine if existing or desired abilities affect satisfaction with online courses. The technological abilities addressed are e-mailing, static web boards, discussion groups, internet chats, video conferences, blogging, wiki, faxing, phone messaging, and game based learning. In summarizing the results it is interesting to note that in the area of technology, 94.6% of the students of online courses slightly agreed, agreed, or strongly agreed that they had the technological skills needed for the online course. Only 1/3 of the students said they had no training, however they could account for the “self taught” and “used the manual” responses. 83.3% of the students thought the instructors had the technology skills to teach the class. The skill the instructors thought was most important for the students to have is time management. The students wanted more training in chatting, simulations, and 2 way live communications. They were not interested in more use of Blackboard, Internet notes and assignments, online tests, or use of postal mail. As indicated by an instructor’s observation, most students who do not have the skills for an online class usually drop out.

Methodology

Data was acquired from a dissertation by Thomas Franza, Jr. that examined Distance Learning Training and the technology needs as perceived by the faculty and students. His focus was the contrast between the web-based and traditionally delivered classes (Franza, 2006) Franza looked at the issue of personalizing what could be considered an impersonal media. By looking at the training facility and students had and comparing it to what they would have liked to have received, a baseline of technological understanding is established. By using the portion of his study that addressed the student interaction with professors and peers regarding academic and social context, attitudes related to satisfaction were analyzed.

Student interaction with professors and peers regarding academic and social context, attitudes related to satisfaction

This study used seven questions from the Franza study that addressed the students experiences with online courses comparing their experiences with traditional. Students responded to “How would you compare your online learning experience to that of a traditional course?” with answers on a 5- point Likert Scale. (1 Considerably Worse, 2 Worse, 3 Slightly Better, 4 Better, 5 Considerably Better) Reliability was tested using Cronbach Alpha and found 90.5%.

Frequency analysis was used to determine student sense of satisfaction contrasting online versus traditional of each of seven questions (see Table 1)

Table 1 Student sense of satisfaction of their interaction with professors and peers. Online vs. Traditional Frequency analysis (N=57)

Variable	Likert: worse or considerably worse online than traditional	Slightly Better	Better or considerably better
Student/Teacher Communications Academics	46.2%	23.1%	30.7%
Student/Teacher Communications Social	53.8%	25.6%	20.5%
Student/Student Communications on Team Projects	57.9%	28.9%	13.1%
Student/Student Communications Social	71.8%	17.9%	10.3%
Ability to access research resources	13.5%	48.6%	37.8%
Ability to take tests	22.5%	25.0%	52.5%
Ability to complete assignment	13.5%	23.1%	48.7%

Frequency tables were summarized by grouping the categories considerably worse and worse, better and considerably better, and slightly better standing alone (Table 2). It is noted that Student/Teacher Communications Academics were considered to be worse or considerably worse by 46.2 % of the responding students for on-line classes. Student/Teacher Communications Social were considered to be worse or considerably worse by 53.8% of the responding students. Student/Student Communications on Team Projects were considered to be worse or considerably worse by 57.9% of the responding students. Student/Student Communications Social were considered to be worse or considerably worse by 71.8% of the responding students. Ability to access research resources was considered to be worse or considerably worse by 13.5% of the responding students. Ability to take tests was considered to be worse or considerably worse by 22.5% of the responding students. Ability to complete assignments was considered to be worse or considerably worse by 13.5% of the responding students.

Student satisfaction versus technological skills

In addition, a correlation analysis was performed to evaluate the relationship between student perceptions, their responses, and the technological ability with satisfaction with the online class experience (Table 2). In order to calculate correlation, we created a variable summarization of the seven variables in Table 1. We call this variable Online vs. Traditional. There was no correlation between technological abilities to student's positive perceptions of distance learning experiences ($r = .06$). Existing technological abilities reported by the students did not correlate to the student's perception of satisfaction with the class. However there was a correlation with the students' sense of satisfaction and the instructors technological ability ($r = .37$). Thus if the students believed the instructor possessed technological ability then they had a higher sense of satisfaction with the class.

Table 2- Technological Skill for on line courses (N=57)

		Online vs. traditional	I possessed the personal technology competences necessary for completing this course.
I possessed the personal technology competences necessary for completing this course.	Pearson Correlation	-.065 (p=.714)	
My teacher possessed the technology competence for teaching this course.	Pearson Correlation	.366 (p=.043)*	.539 (p=.001)*

* Correlation is significant at the 0.05 level (2-tailed).

In addition, we performed cross-tabulations using each of the seven items on Table 1 with “My teacher possessed the technology competence for teaching this course” and “I possessed the personal technology competences for completing this course.” We found no relationships except with the variable student/student communications- social and I possessed the personal technology competences necessary for completing this course (Table 3). Students found that they had better social communications if they possessed technological skills. (Pearson Chi Square p = .011)

Table 3

Crosstab

		I possessed the personal technology competences necessary for completing this course.				Total	
		Strongly Disagree	Slightly Agree	Agree	Strongly Agree		
Student/student communications - social	Considerably Worse	Count	0	3	2	3	8
		% of Total	.0%	8.1%	5.4%	8.1%	21.6%
	Worse	Count	0	4	7	8	19
		% of Total	.0%	10.8%	18.9%	21.6%	51.4%
	Slightly Better	Count	0	0	0	7	7
		% of Total	.0%	.0%	.0%	18.9%	18.9%
	Better	Count	1	0	1	1	3
		% of Total	2.7%	.0%	2.7%	2.7%	8.1%
Total	Count	1	7	10	19	37	
	% of Total	2.7%	18.9%	27.0%	51.4%	100.0%	

Conclusion and Discussion

Student satisfaction with online courses is not affected by their own technological skills. The student’s only area of concern in their technological skills was in the ability to interact with other students. Satisfaction is affected by the students’ perceptions of the instructor’s technological ability. The student satisfaction is higher if the instructor’s skills are perceived as higher. The data is clear regarding students and their dissatisfaction with the social aspects of online courses. They did like the ability to complete tasks and tests, do research, and complete assignments. Students in this study felt there was a diminished satisfaction with the online courses because of the sense of less socialization with the instructors and other students.

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