Asian Journal *of* Distance Education

http://www.AsianJDE.org

ISSN 1347-9008 Asian J D E 2011 vol 9, no 2, pp 26 - 31

Student Satisfaction with e-Learning achieved in Pakistan

Nadia AYUB & Shahid IQBAL
Institute of Business Management, Karachi & Federal Urdu University for Arts, Science and Technology, Karachi, Pakistan
nadia.ayub@iobm.edu.pk

ABSTRACT :

E-learning is growing very rapidly in higher education. Institutions of higher education are creating courses and programs online to serve a student population that is more dispersed geographically: one that is older and less likely to be able to attend school full time and accustomed to on-demand interactions in other facets of their lives (Nicholson & Sarker, 2002). The student satisfaction with e-learning is success of this program. The aim of the present study was to measure satisfaction level of students towards e-learning in higher education. The study measured students' satisfaction with E-learning through Telecourse Evaluation Questionnaire (TEQ: Biner, 1993). The sample comprised of 100 students enrolled in different e-learning programs including, 30 % (Economics Department); 20 % (Mass Communication Department); 10% (Physical Education); 20 % (Sociology Department); and 20% (Mathematics Department). Age ranged was from 24 to 45 and average age was 34.92. Descriptive statistics were used for statistical analysis. Findings of study indicated positive response and most of students expressed satisfaction with e-learning programs.

1. INTRODUCTION :

E-learning degree programs are increasingly growing in higher education. The rationale of the development of these programs is the changing demographics and geographic barriers. E-learning programs have actually created new challenge for students who were once bound to local universities or colleges. However, the quality of an e-learning program is undoubtedly the most important aspect in today's market. In this regard, student's satisfaction with the program is considered highly significant in higher education.

The trend of telecourse was popular in 1970s. Literature suggests that by the 1970s, universities were broadcasting classes on television.

As this method of distance education gained popularity, universities began to offer classes at multiple times so that participant could watch in the comfort of their homes (Albrecht & Jones, 2001). Since the 1990s, the most recent developments in distance education involve the use and integration of technologies such as television, computers, and the World Wide Web to educate students across geographic boundaries (Albrecht & Jones, 2001; Bobby & Capone, 2000).

Different researchers such as Biner and his colleagues have focused on the study of student satisfaction with telecourses (i.e. Biner et al., 1994; Biner et al. 1996; Biner et al. 1997a; Biner, Welsh, Barone, Summers, & Dean, 1997c).

Biner et al. (1997a) found student's satisfaction with a telecourse is predictive of his or her overall performance in the class. The results of this research showed the students who performed best were those who were most satisfied with the technological aspects of the class. Biner et al. (1997b) found these personality characteristics associate with telecourse satisfaction. It was indicated that students who are mature, humble, venturesome, and extroverted were more satisfied with their telecourse experience. Biner, Dean, & Mellinger.s (1994) research on student attitudes and satisfaction in tele-education, one might say that satisfied students are more motivated and committed to their classes and, ultimately, are better learners than dissatisfied classmates are.

The improvement in teacher and student relationship in the past has been an essential element of instruction. Carl Rogers noted that significant learning rests on the personal relationship between facilitator and learner. Lia-Hoagberg, Vellenga, Miller, and Li (1999) defined connectedness as a sense of satisfaction expressed by students related to the level of contact they had with faculty and peers at both same site and remote sites.

The face-to-face classroom provides a higher chance to deliver the favorable intimacy and immediacy to learners than the existing e-learning does due to the presence of preverbal (e.g. tone of voice, inflection, voice volume) and nonverbal (e.g. eye movement, facial expression, hand gestures, body language) cues (Gunawardena, 1995; Warkentin et al., 1997). Personal interaction and proximity have been the cornerstones for teaching relationship development in counselor education for decades (Rogers). Furthermore, Wheeler & Batchelder, (1996), the absence of time to chat before and after class made students feel less connected to classmates. Carl Rogers (1969) asserted that a positive, connected, personal relationship between teacher and learner must be present for significant learning to take place.

2. OBJECTIVES

The main objective of this study was to assess student's satisfaction towards e-learning. Furthermore, this study focuses on three dimension of satisfaction level i.e. Instruction/Instructor Characteristics; Technological Characteristics; and Course Management and Coordination Characteristics related to e-learning program.

3. METHODOLOGY

Sample

The sample of the study comprises of 100 participants from different Masters programmes (30% Economics Department; 20 % Mass Communication Department; 10% Physical Education; 20 %Sociology Department; and 20%Mathematics Department). A different campus of Virtual University was selected for data collection. Students were approached via their email. Age ranged was from 24 to 45 and average age was 34.92. All subjects volunteered to participate in the study.

Measure

The participants filled a *demographic form*, which included information about gender, age, qualification, years in the course.

Telecourse Evaluation Questionnaire (TEQ, Biner, 1993) measured students Satisfaction with different facets of telecourse. The TEQ consists of 34 items. There are three dimension of students' satisfaction; sixteen items measure Instruction/Instructor Characteristics; Seven items measures Technological Characteristics; and eleven items measure Course Management and Coordination Characteristics. The participants rated on a Likert-type scale ranging from one (1 = Very Poor to 5= Very Good). The internal consistency of TEQ is (Instruction/Instructor = .94; Technological = .83; Course Management and Coordination = .80)

Procedure

Data was collected through email survey. E-mail addresses of students were obtained from the university departments. A document providing information about nature and objectives of study and consent form were emailed to students. Confidentiality was assured. Students who agreed to participate were then sent a demographic form and Tele-course Evaluation Questionnaire. Participation was voluntary and the responses were anonymous.

Statistical Analysis

After collection of data the test sheets were scored. Telecourse Evaluation Questionnaire (TEQ, Biner, 1993) was scored according to the instructions given in the manual. Descriptive statistics were applied through Statistical Package for Social Sciences, 13 version.

4. RESULTS

Results are presented in Tables 1, 2 & 3 below.

Table 1: Descriptive Statistics of Students' Satisfaction with Course Instruction / Instructor Characteristics

Items	Median	Std Dev	Minimum	Maximum
Clarity of communication about class assignments	2.00	.591	1	3
Student reaction to time graphics were left on screen	2.00	.551	1	3
Degree to which graphics aided in student understanding of material	2.00	.566	1	3
Production quality of graphics	2.00	.520	1	3
Timeliness of materials return	2.00	.580	1	3
Instructional techniques aided student learning	2.00	.687	1	3
Extent to which classroom was distraction free	2.00	.665	1	3
Instructor made students feel a sense of belonging	2.00	.598	1	3
Instructor's communication skills	2.00	.661	1	3
Instructor's organization and preparation for class	2.00	.621	1	3
Instructor's level of enthusiasm	2.00	.533	1	3
Instructor's teaching ability	2.00	.589	1	3
Instructor's ability to encourage class participation	1.00	.594	1	3
Accessibility of instructor	1.00	.575	1	3
Instructor's professional behavior	1.00	.611	1	3
Instructor overall	1.00	.538	1	3

Note: Shows descriptive statistics (median, std. dev, minimum, and maximum) of students' satisfaction with course Instructor/Instructor characteristics

Table 2: Descriptive Statistics of Students' Satisfaction with Technological Characteristics

Items	Median	Std Dev	Minimum	Maximum
Quality of television picture	1.00	.451	1	2
Quality of television sound	2.00	.628	1	3
Adequacy of television screen size	1.00	.559	1	3
Clarity of the tele-response system audio	1.00	.557	1	3
Brevity of talk-back delays	1.00	.559	1	3
Promptness with which instructor recognizes calls over the tele-response system	2.00	.639	1	3
Student confidence that classes will not be cancelled due to weather	2.00	.525	1	3

Note: Shows descriptive statistics (median, std. dev, minimum, and maximum) of students' satisfaction with technological characteristics

Table 3: Descriptive Statistics of Students' Satisfaction with Course Management and Coordination

Items	Median	Std Dev	Minimum	Maximum
Means of material exchange with instructor	1.00	.499	1	2
Accessibility of labs	1.00	.499	1	2
Ability to access a library	2.00	.690	1	3
Ability to access a computer	2.00	.620	1	3
General conscientiousness of site coordinator	2.00	.634	1	3
Accessibility of site coordinator	1.00	.577	1	3
Ability to operate tele-response system	2.00	.520	1	3
Promptness of course material delivery	2.00	.599	1	3
Promptness with which back up tapes are provided	1.00	.559	1	3
Ability to access departmental personnel	2.00	.616	1	3
Enrollment and registration procedures	2.00	.664	1	3

Note: Shows descriptive statistics (median, std. dev, minimum, and maximum) of students' satisfaction with course management and coordination

5. DISCUSSION

E-learning is the latest form of educational technology that lends potentially high levels of interactivity, information access, and communication economies to assist in the design and management of learning programs needed by busy adults (ASTD, 2002; Khan, 1997; Mann, 2000). The objective of this study was to find out student's satisfaction towards e-learning. Furthermore, this highlights on three dimension of student's satisfaction e.g. Instruction/Instructor Characteristics; Technological Characteristics; and Course Management and Coordination Characteristics.

Findings of this study demonstrated that students were actually satisfied with e-learning mode of teaching. Previous literature supports these findings of study as it has identified some clear benefits of e-learning programs which make students more satisfied with them. For example, the benefits of online programs include on demand learning, removal of geographic limitations to gain access to, reduced cost of transportation for participation, and reduced building and/or maintenance fees for classroom space (Bataineh, 2001, as cited in Fuller & McBride, 2001). Other researcher like Bataineh (2001), further defined the typical online or distance learner as "non-traditional, a full time worker, a parent, living in a rural area, female with children, [or] a person with a disability" (p. 17). Another research finding by Dewhurst, Macleod and Norris (2000), and Tweddle et al. (2000) showed the students were generally satisfied with online learning.

In this study analysis of variable "student's satisfaction towards instructor's characteristics" was also made. The instructor's characteristics include instructor's communication style, professional behavior, enthusiasm, instructional techniques, organized; clarity of ideas etc. Findings indicated greater degree of students' satisfaction with instructor's characteristics. Powers and Rossman (1985) also discovered that graduate students' sense of satisfaction was related to professor-student interactions. Current findings as well showed that students who were satisfied with their instructors were more satisfied with their e-learning program. This finding confirms that instructor's interaction, clear directions, confidence, sharing of knowledge, and facilitation is overall significant predictors of students satisfaction towards e-learning.

Another important aspect of student's satisfaction was Technological characteristics which includes quality of television picture, sound, screen size, audio, talk backs delay, and technical problems. A study by Bush (1996) had already noted that students can become frustrated with the poor performance of the ongoing video

stream especially because of the lack of synchronization between the lips and the sound. Furthermore, Rafaeli and Sudweeks (1997) reported that if the technology and communication technology used were reliable, students studied better in e-learning environment and had higher e-learning acceptance. Selim (2005) stated that the efficiency and effectiveness in delivering the e-learning based components of a course is one of the most critical factors to students' acceptance of e-learning and success in e learning courses. Findings of present study suggest that student's satisfaction with technological characteristics was also very crucial in determining the overall satisfaction with e-learning program.

Student's responses on "satisfaction towards course management and coordination" also showed that students were satisfied with their course. These findings are in tune with previous research studies. For example, Passmore (2000) asserted that students' satisfactions and progress in e-learning depended on institutions providing adequate facilities and infrastructures of technology and support.

The result advocates that course management, and coordination is a significant predictor of overall student's satisfaction towards e-learning. The possible explanation is that in distance learning program there is a more flexibility in terms of learning and settings including location and time. Poor coordination and management of the program might lead to dissatisfaction towards e-learning which should be addressed.

6. CONCLUSIONS

To conclude, overall findings of the study suggest the students had more positive and satisfactory responses towards e-learning. Furthermore, three important dimensions Instructors characteristics, Technological characteristics, and management and coordination of course play an important role in student's satisfaction level.

These results and the previous literature confirm that the characteristics of an online learning environment have a great impact on student satisfaction (Thurmond et al., 2002; Trinidad, Aldridge, & Fraser, 2005).

REFERENCES

Albrecht, A.C., & Jones, D.G. (2001). *High Tech/High Touch: Distance learning in counselor preparation*. Alexandria, Virginia: Association for Counselor Education and Supervision (ACES).

ASTD: American Society for Training and Development. (2002). *The ASTD e-learning handbook: Best practices, strategies, and case studies for an emerging field*. Edited by A. Rossett. New York: McGraw-Hill

Biner, P. M. (1993). The development of an instrument to measure student attitudes toward televised courses. *The American Journal of Distance Education*, 7(1), 62-73

Biner, P. M., Dean, R. S., & Mellinger, A. E. (1994). Factors underlying distance learner satisfaction with televised college-level courses. *American Journal of Distance Education*, 8(1), 60-71.

Biner, P. M., Summers, M., Dean, R. S., Bink, M. L., Anderson, & Gelder, B.C. (1996). Student satisfaction with interactive telecourses as a function of demographic variables and prior telecourse experience. *Distance Education*, 17(1), 33-43.

Biner, P. M., Summers, M., Dean, R. S., Bink, M. L., Anderson, J. L., & Gelder, B. C. (1997b). Personality characteristics predicting continuing education student's satisfaction with interactive telecourses. *The Journal of Continuing Higher Education*, 45(3), 22-32.

Biner, P.M., Welsh, K.D., Barone, N.M., Summers, M. & Dean, R.S. (1997c). The impact of remote group size on student satisfaction and relative performance in interactive telecourses. *The American Journal of Distance Education*, 11(1), 23-33.

Bobby, C., & Capone, L.(2000). Understanding the implications of distance learning for accreditation and licensure of counselor preparation. In J. Bloom & F. Waltz (Eds.) *Cybercounseling and cyberlearning: Strategies and resources for the millennium* (pp. 361-377). Alexandria, VA: American Counseling Association.

Bush, M. (1996). World Wide Web technology: What's hot and what's not. *Multimedia Monitor*, 14 (2), 15-19.

Dewhurst, D.G., Macleod, H.A., & Norris, T.A.M. (2000). Independent student learning aided by computers: An acceptable alternative to lectures? *Computers & Education*, 35, 223-41.

Gunawardena, C. N. 1995. "Social Presence Theory and implications for interaction and collaborative learning in computer conferences". *International Journal of Educational Telecommunications* 1 (2):147-166.

Khan, B. H. (1997). Web-based instruction (WBL): What is it and why is it? In B.H. Khan (Ed.), *Web-based instruction* (pp. 5-18). Englewood Cliffs, NJ: Educational Technology Publications.

Lia-Hoagberg, B., Vellenga, B., Miller, M., & Li, T. Y. (1999). A partnership model for distance education: Students perceptions of connectedness and Professionalization. *Journal of Professional Nursing*, 15(2), 116-122.

Mann, B.L. (2000). *Perspectives in web course management*. Toronto, ON: Canadian Scholar's Press.

Passmore, D.L. (2000). Impediments to adoption of web-based course delivery among university faculty. *ALN Magazine*, 4 (2)

Rafaeli, S., & Sudweeks, F. (1997). Networked interactivity. *Journal of Computer-Mediated Communications*, 2(4)

Rogers, C. R. (1967). *The interpersonal relationship in the facilitation of learning*. Washington, D.C.: Association for Supervision and Curriculum Development.

Rogers, C.R. (1969). *Freedom to learn*. Columbus, OH: Merrill.

Selim, H.M. (2005). Critical success factors for e-learning acceptance: Confirmatory factor models. *Computers and Education*.

Thurmond, V. A., Wambach, K., Connors, H. R., & Frey, B. B. (2002). Evaluation of student satisfaction: Determining the impact of a web-based environment by controlling for student characteristics. *The American Journal of Distance Education*, 16 (3), 169-189.

Trinidad, S., Aldridge, J., & Fraser, B. (2005). Development, validation and use of the Online Learning Environment Survey. Australasian *Journal of Educational Technology*, 21 (1), 60-81.

Tweddle, S., James, C., Daniels, H., Davies, D., Harvey, P., James, N.N., Mossman, J., & Woofg, E. (2000). Use of a Web site for learning about cancer. *Computers & Education*, 35 (2), 309-25.

Warkentin, M. E., Sayeed, L., and Hightower, R. 1997. *Virtual teams versus face-to-face teams: An exploratory study of a Web-based conference system*. Decision Sciences 28 (4):975-996.

Nadia AYUB is in Department of Business Psychology, College of Business Management, Institute of Business Management, Karachi & Federal Urdu University for Arts, Science and Technology, Korangi Creek, Karachi, Pakistan
E-mail: nadia.ayub@iobm.edu.pk
Shahid IQBAL is in the Department of Psychology, Abdul Haq Campus at Federal Urdu University for Arts, Science and Technology, Karachi, Pakistan.
E-mail: Shahiq_psy@yahoo.com