e-Learning versus Traditional Learning in Pakistan

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ABSTRACT :

The advance of science and technology has brought about significant diversity in education as well as in teaching methodology. Emerging technologies have made education more productive and more customized, have given instruction a more scientific basis and have made it more powerful. E-learning involves an alternative way to provide education. The objectives of the study were to examine the use of e-learning and traditional learning in Pakistan at the higher education level and to compare the effectiveness of e-learning and traditional learning with the use of surveys. A small sample group of Bachelor of Computer Science and Master of Computer Science of Allama Iqbal Open University (AIOU) were selected as the traditional group and the same number of distance students of the same subjects attending Virtual University of Pakistan were selected for the study. A questionnaire was developed for both target groups to inquire their opinions of traditional and online learning. The tool was administered in person on the AIOU campus and at the Virtual University Study Centre at Wah Cantt. It was found that e-learning was more effective than the traditional one.

1. INTRODUCTION :

With the emergence of communication technology, global innovations in communication technology have totally changed our world. Now the distance has been mitigated. The world of educational thought and practice has developed new emphasis according to the changing scenario for better understanding of learners with respect to their age, grade, and ability; as well as the formulation of objectives and organization of instruction to achieve these objectives. The penetration of technology into the teaching and learning process as a vehicle by which instruction is shaped, stored and delivered to learners according to their learning styles has proved its worth. The broad purpose of education is to prepare a learner to perform effectively in society and contribute as a self-reliant member. Emerging technologies have altered the point of view on the dominance of teachers for educational activities. The traditional teaching-learning approach focuses on face to face meetings and total organizational control over the process. This approach focuses on teaching, unlike the e-learning approach, which is learner-based. Emerging technologies have made education more productive and more individual, have given instruction a more scientific basis and have made it more powerful. Learning is more immediate and access is more equal. These remarkable aspects can expand the quality and quantity of instructional resources. They can serve learners at their ease in terms of time and place. Rashid, (2001, p.270) stated that using emerging technologies ;

• Both teachers and learners can work with others at remote sites,

• The community of learners can expand to include virtually anyone who wishes to obtain information and who is not included by policy or cost,

• They can provide real access to experts in universities, research laboratories, the business community, government agencies and political offices.

ICT have impacted every aspect of human activity. It is as large a change as when we first got the printed book (Clayton, 2000). There is now a huge increase in online education that is fueled by learners who do not fit the stereotypical mold. This is called e-learning. E-learning is the delivery of learning, training or education programmes by electronic means. E-learning involves some way to provide training, educational or learning material" (Stockly, 2003).

The ideal of one-on-one instruction is not practical in today's classrooms. It is neither efficient nor practical with massive amounts of students being crammed into classrooms. "A computer can give you more one-on-one interaction than human can when that human has many other humans to deal with in a traditional university classroom maybe ten to twenty-five. In a classroom people who are curious, inquisitive, and questioning take up too much time" (Galagan, 2000). Students prefer the online environment because they can question the professor or experiment with a project without fear of ridicule by other students. There are obstacles in launching e-learning program. Delvecchio & Lougney (2007) stated some disadvantages of e-learning include;

• E-learning requires more time for attending class and completing assignments than any traditional classroom course. This means that students have to be highly motivated and responsible because all the work they do is on their own. Learners with low motivation or bad study habits may fall behind.

• E-learning is imparted without the routine structures of a traditional class, students may get lost or confused about course activities and deadlines causing the students to fail or do poorly.

• Students feel isolated from the instructor. Instructions are not always available to help the learner, so learners need self-discipline to work independently without the instructor's assistance.

• E-learning also needs to have good writing and communication skills because when instructors and other learners do not meet face to face, it is possible to misinterpret what was meant.

• It is difficult to manage computer files and on line-learning software.

• For learners with beginner-level computer skills it can sometimes seem complex to keep their computer files organized.

• Without good computer organizational skills, learners may lose or misplace reports causing to be late in submitting assignments.

• Some of the students also may have trouble installing software that is required for the class.

On the other hand, most researchers in e-learning discuss the positive effects of using e-learning because it improves student commitment in the-learning process (Rashty, 2003, p.2). By this, the student becomes an active participant in the classroom. Siowk Lee (2001, p.45) also agrees on this because she adds that students are becoming more responsible and spend extra time-learning through e-learning. Other scholars like Schoenfeld, Connell & Graham (2001) conclude that e-learning enhances students' competitive spirits and nature in terms of oral interactions. Since students are getting a lot of resources, they find conversation to be easy. The present study compares both e-learning and traditional learning with respect to student achievement, facilities and flexibility

2. METHODS :

The study is descriptive in nature, and a survey is considered appropriate to collect the required data. The objectives of the study were: to examine the use of e-learning and traditional learning in Pakistan at the higher education level and to evaluate the effectiveness of e-learning and traditional learning A total of 25 students of Bachelor of Computer Science and Master of Computer Science programs of Allama Iqbal Open University were selected as the

traditional group Computer science students of AIOU are being taught in the study centers with face-to-face sessions, therefore it is considered as traditional methodology of teaching- learning) and the same number of students of the same subjects of the Virtual University were selected for the study. A questionnaire was developed on a five-point Likert scale for both target groups to find out the opinion of the students about traditional and online learning.

The research tool was administered personally at Allama Iqbal Open University, Islamabad, and Virtual University campus, Wah Cantt.

3. RESULTS :

Each statement of the questionnaire was checked by applying chi-square technique at significance level 0.05 and determines the trend of respondents towards agreement/disagreement with the statement. Simple percentages were also calculated to give further detail. The data are presented in Table 1 below.

The response of the target group on the statement "Learning face-to-face is more difficult and challenging than e-learning" indicates that the calculated value of chi-square for the traditional group is greater than the tabulated value. Thus, it means that the respondents were of the view that face-to-face learning was more difficult for them than e-learning.

It may be the reason that students feel comfortable in an e-learning environment as compared to traditional learning, as self pacing is one of the features of online/e-learning (Schrum, 1995). Whereas calculated value of chi-square for online students is lesser than the tabulated value it means that this group does not agree to the statement.

While analyzing responses to the statement on the suitability of e-learning i.e. "E-Learning is a suitable mode of education for students in Pakistan", it was found that the calculated values of chi-square for both groups is lesser than the tabulated value, it means that the trend of respondents of both

groups is towards disagreement on the statement.

The calculated values of the chi-square for both groups are greater than the tabulated value (9.488) on the statement "The e-learning system is an alternative for the traditional system of teaching". It means that the trend of answers of both groups points towards agreement on the statement.

Learning material/Recorded lectures (asynchronous interaction/communication) are as effective as the face-to-face teaching/classroom (traditional teaching), the calculated values of chi-square for both groups is greater than the tabulated value (9.488), it means that the tilt of respondents of both groups is towards the agreement on the statement.

However, as far as opinions on motivation power are concerned, the chi-square value of the traditional group is lesser than the tabulated value, which means that the respondents disagree with the statement i.e. "E-learning is more motivating than the traditional system", while the respondents of the e-learning group agree with the statement that "e-learning is more motivational as compared to traditional system".

"At present, information and communication technologies (ICT) play an effective role in promoting education", the calculated values of chi-square for both groups on this statement are greater than the tabulated value (9.488), which means that there is a curve of answerers of both groups towards the agreement of the statement.

Course material for e-learning is more comprehensive as compared to the traditional teaching material", the calculated values of chi-square for both groups on this point of view are greater than the tabulated value (9.488), which means that the bend of answerers of both groups is towards the agreement of the statement.

When the respondents were asked if the "e-learning system can fulfill the challenging needs of the present time for teaching masses", the calculated values of chi-square for both the groups are greater than the tabulated value (9.488), which means that the bend of answerers of both groups is towards the agreement.

Table 1 : Summary Results from the Questionnaire

	Statement	mode	level	freq	%	Chi-sq
1	Face to face learning is more difficult and challenging than e-learning	traditional	SA	10	40	10.4
			A	5	20	
			UNC	6	24	
			DA	4	16	
			SDA	0	00	
		e-learning	SA	5	20	3.2
			A	3	12	
			UNC	8	32	
			DA	6	24	
			SDA	3	12	
2	E-learning is a suitable mode of education for students in Pakistan	traditional	SA	0	00	7.6
			A	7	28	
			UNC	8	32	
			DA	5	20	
			SDA	5	20	
		e-learning	SA	3	12	4.4
			A	7	28	
			UNC	8	32	
			DA	3	12	
			SDA	4	16	
3	The e-learning system is an alternative for the traditional system of teaching	traditional	SA	0	00	15.6
			A	5	20	
			UNC	12	48	
			DA	5	20	
			SDA	3	12	
		e-learning	SA	10	40	12.8
			A	8	32	
			UNC	3	12	
			DA	4	16	
			SDA	0	00	
4	Learning material / Recorded lectures are as effective as face-to-face teaching/classroom situations	traditional	SA	0	00	13.6
			A	5	20	
			UNC	10	40	
			DA	8	32	
			SDA	2	08	
		e-learning	SA	0	00	14.8
			A	9	36	
			UNC	6	24	
			DA	1	04	
			SDA	9	36	

	Statement	mode	level	freq	%	Chi-sq
5	E-learning is more motivating than traditional systems	traditional	SA	6	24	7.2
			A	5	20	
			UNC	8	32	
			DA	6	24	
			SDA	0	0	
		e-learning	SA	3	12	10.8
			A	11	44	
			UNC	6	24	
			DA	2	8	
			SDA	3	12	
6	At present, information and communication technologies (ICT) play an effective role in promoting education	traditional	SA	15	60	31.6
			A	7	28	
			UNC	3	12	
			DA	0	00	
			SDA	0	00	
		e-learning	SA	12	48	21.6
			A	8	32	
			UNC	5	20	
			DA	0	00	
			SDA	0	00	
7	E-learning course materials are more comprehensive than traditional teaching materials	traditional	SA	2	08	17.2
			A	5	20	
			UNC	13	52	
			DA	3	12	
			SDA	2	08	
		e-learning	SA	5	20	45.6
			A	18	72	
			UNC	2	08	
			DA	0	00	
			SDA	0	00	
8	E-learning systems can fulfill the challenging needs of present times for teaching masses	traditional	SA	7	28	10.0
			A	9	36	
			UNC	3	12	
			DA	6	24	
			SDA	0	00	
		e-learning	SA	6	24	15.2
			A	8	32	
			UNC	10	40	
			DA	1	04	
			SDA	0	00	

4. DISCUSSION :

It is assumed that the traditional way of teaching plays an important role in grooming the personality of individuals, but it is difficult to educate each person through a formal system due to the fact that the explosion of population and knowledge has been difficult to manage in the age of IT.

Broadly speaking, in this age of science and technology, every country of the world is trying to promote the field of technology. Technology affects every field of life. The trends and modes in education have changed with the passage of time and they are not the same as they were two or three decades ago. Currently, educational fields are facing new challenges and issues. Students of the traditional learning process think that face-to-face learning is more difficult as compared to e-learning, while the students of the e-learning disagree with this statement.

Respondents of both groups have the opinion that e-learning is not a suitable mode for Pakistani students. For e-learning, some basic things like computer, computer accessories and access to the Internet are compulsory and these facilities are not available throughout the country (Pakistan). The Economic Survey of Pakistan 2008 depicts the present situation about internet usage as "According to estimates by the Internet Service Providers Association of Pakistan (ISPAK), currently there are about 3.5 million internet subscribers all across Pakistan, where the total of users crossed the 17 million mark. Currently around 3,008 cities are connected to internet.

The respondents realized that the e-learning system has the potential to provide an alternate path. Respondents also share the view that information and communication technologies (ICT) play an effective role.

It came to light that while designing an e-learning course, care should be taken to adopt self-learning and interactive instructional design. Students of both groups agreed that the e-learning material is more helpful for them. It is notable that the students of the traditional teaching-learning system also consult the e-learning materials.

One of the reasons possibly is that there is worthwhile utilization of computers and the Internet in the conventional education system and it is going to be an important tool for teaching and learning.

5. CONCLUSIONS :

1. According to the respondents, learning face to face in the traditional system is more difficult than learning in the on-line system, while the respondents of the on-line learning system do not agree with the statement.
2. Both groups disagree with the statement that "e-learning is a suitable mode of education for students in Pakistan".
3. Respondents of both groups have agreed that "the e-learning system is an alternative for the traditional system of teaching" and "E-learning materials are as effective as face to face learning materials".
4. Students get more motivated through e-learning.
5. Information and communication technologies play a very useful and effective role in education and can fulfill the needs of the present time.
6. It is difficult for a developing country to educate its masses merely through the formal education system based on traditional F2F/classroom teaching. Hence, e-learning has potential to meet the challenges of the present time so that people do their role for the development of the nation.

6. RECOMMENDATIONS :

1. The teaching-learning process may be made more attractive through the use of ICT in education.
2. For better e-learning, more computer facilities and internet access need to be provided.
3. In order to maximize public education, an e-learning system should be launched by the government.

4. More opportunities for acquiring hands on skills in computer may be created for the students of ICT.
5. Teachers should be trained for the use of ICT , so that they organize their teaching in a better way by using these technologies.
6. For better teaching-learning, teachers should use ICT in classes because the use of ICT makes learning more attractive as compared to traditional learning.

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