

## **IS E-LEARNING NECESSARY FOR UNIVERSITY STUDENTS? A Case From Iran**

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### **ABSTRACT**

Today many claim that e-learning can result in considerable time and cost-savings , such as traveling , work time and etc . This study was conducted to investigate these questions: should e-learning be used to reduce travel related stress? should e-learning be offered fully online to reach students living in remote areas? should e-learning be adopted to allow working students to study from home ? Pressure to use e-learning was developed as a factor to answer above questions. Data was collected through a survey of 400 post graduate students at Tehran University. The results showed that many Iranian post graduate students agreed on above statements . In addition , linear regression analyses revealed a statistically –significant model for pressure to use e-learning as the best predictor of level of student’s intention to adopt e-learning ( F 37.737 , df=1 , R square = .187 )

**Keywords :** E-learning , pressure to use e-learning , intention to adopt e-learning

### **INTRODUCTION**

Today many claim that e-learning can result in considerable time and cost-savings , such as traveling , work time and etc (Hackley , 1997 : Hall and Sbider , 2000; Connolly , Hiltz , 1988 ; Piccolo et al , Zaham , 2000 , coppola and Myre , 2002; Volery and Lord 2000; Urdan and Weggan ,2000 Hiltz , 1988 ; Piccolo et al , 2001; coppola and Myre , 2002 ; Kruse 2005 Connolly and Stansfield 2006) . Because we enter the telecommunication age, with its vastly expanded employment skill sets, the undergraduate student population has changed to include older , married, employed, and non-residential students. (Beller and Or 1998). Previous studies have indicated that the decision of mature students to enter or return to higher education is a decision that has to be waved against responsibilities stemming from various social roles and responsibilities (Pascall & Cox, 1993; Edwards, 1993 ). Managing time amidst conflicting responsibilities is paramount in this process as students struggle to balance themselves between new and on-going obligations generally resulting in anxieties and tensions .Appropriately, Davies et al (2002) report that the decision of mature students to enter higher education is a complex one and barriers to entry are linked to the realities of their lives which include: multiplicity of roles ,costs of study, the importance and value attached to caring responsibilities, and time management problems.

E-learning eliminates costs associated with instructor's salaries, meeting room rentals, and student travel, lodging, and meals. The concept e-learning are combination, implementation and relationship of the activities for learning and teaching via different electronic media such as in distance and open learning , etc . Nipper (1989) identified three generations of distance education. The first generation “ correspondence model” is provided mostly through paper-based instruction and characterized by the mass production of educational materials .

The second generation referred to as the multimedia model is provided through integrated multimedia such as delivering courses via television or introducing material like audio , video, tapes and computer –based learning (CBL) in addition to printed material. The third generation is provided through two-way communications media such as audio/video-conferencing and broad - cast technology. Growing interest in e-learning, as a way to provide distance students with additional resources and support, prompted universities to investigate the adoption of Learning Management Systems to enable teaching staff to develop and manage online courses with little professional support. The term Learning Management System (LMS) refers to an integrated set of networked, computerized tools that support online learning (Virtual Learning Environment or Course Management System are other terms that are sometimes used). Learning Management System (LMS) such as WebCT, and Moodle, has many built-in features to help teachers managing their courses. A learning management system can deliver:

Course material,

On-line tests (multi-choice, list-matching, etc)

Discussion groups and live chat.

It has many tools to help teaching staff work with students' marks, conduct group work, and process the submitting and return assignments .

Students log in with their university username and password, and have access to courses in which they are enrolled. They can access the system from a campus computer lab or over the Internet from home. The benefits of using such tools (i.e.WebCT, and Moodle) is that instructors do not require advanced web development skills to develop interactive sites as the template already contain the various interactive features, such as chat rooms and discussion lists. Course designers can add course and lecture notes in a variety of file formats, including graphics (Abdel-Wahab , 2008). However, despite the benefits of e-learning for reduction travelling related to stress universities have been slow to bring e-learning into the main stream and maximize the potential benefits for students who live in remote areas or married students (Link and Marz,2006 ; Hayashi , Chen , Ryan and Wu ; 2006 ).

Martinze (2004) suggests that the study of student's attitude towards the benefits of e-learning related to reduction student's traveling in many ways help managers better prepare in light of e-learning for the future . Perez Cereijo (2006) states that student's attitude may be more important than reality ,i.e ., decisions , many times are based on attitudes . The theory of technology acceptance model was really designed to test why students should use e-learning. Davis (1983) explains a variety of factors that affect student's attitude to use e-learning. This study focus on only two factors of davis' model , pressure to use e-learning and intention to use e-learning. In order to test student's pressure to use e-learning were designed as following:

- should e-learning be used to reduce travel related stress?
- should e-learning be offered fully online to reach students living in remote areas?
- should e-learning be adopted to allow working students to study from home ?
- should e-learning be adopted to allow married students to balance family and study demands ?

## **METHOD**

### **Designing the instrument**

The reliability of the measurement scale was derived as 0.82 by employing Cronbach's alpha for 50 Indian students .

### Survey sample

Stratified sampling technique was employed in the present study . 400 post graduate students at the University of Tehran from different faculties were the sample of the present study (table2) .

Table: 1  
Sample details

Arts		Science	
Department	Number	Department	Number
Education	40	Computer science	40
Mass communication	40	Biotechnology	40
Geography	40	Statistic	40
Psychology	40	Physic	40
Political science	40	Chemistry	40

### Personal characteristics of respondents

Approximately 94.8% of students who participated in the study here between 19 to 25 years and only 5% more than 26 years . 46.53 %of respondents were male and 53.5% were female.

## RESULTS AND ANALYSIS

To answer the questions of the study all the items of the scale were positively worded . Items were scored as 4. 3. 2. 1 and 0 for strongly agree , agree, disagree , strongly disagree and undecided, respectively .

### Research Question: 1

should e-learning be used to reduce travel related stress? All the items of the scale were positively worded . Items were scored as 4 . 3 , 2 1 and 0 for strongly agree , agree ,disagree , strongly disagree and undecided , respectively . As table 2 shows that 29.6 % Students strongly agreed , 46.3% agreed , 2.8 disagreed and only 2.8 strongly disagreed . On the other hand , about 14.3 % were undecided on this statement .

Table: 2  
frequency scores on question 1

Likert Scale	Frequenc y	Percent	Valid Percent	Cumulative Percent
undecided	114	14.3	14.3	14.3
Strongly Disagree	22	2.8	2.8	17.0
Disagree	57	7.1	7.1	24.1
agree	370	46.3	46.3	70.4
strongly agree	237	29.6	29.6	100.0
Total	800	100.0	100.0	

### Research Question: 2

should e-learning be offered fully online to reach students living in remote areas? As table 3 shows that 29.3 Students strongly agreed, 40.9 agreed, 10.6 disagreed and only 3.3 strongly disagreed. On the other hand, about 16.0 were undecided on this statement .

**Table: 3**  
**frequency scores on question 2**

Likert Scale	Frequency	Percent	Valid Percent	Cumulative Percent
undecided	128	16.0	16.0	16.0
Strongly Disagree	26	3.3	3.3	19.3
Disagree	85	10.6	10.6	29.9
agree	327	40.9	40.9	70.8
strongly agree	234	29.3	29.3	100.0
Total	800	100.0	100.0	

**Research Question: 3**

should e-learning be adopted to allow working students to study from home ? As table 4 shows that 35.9 students strongly agreed, 46.5 agreed, 5.6 % disagreed and only 2.0 % strongly disagreed.

On the other hand, about 10.0 % were undecided on this statement.

**Table: 4**  
**frequency scores on question 3**

Likert Scale	Frequency	Percent	Valid Percent	Cumulative Percent
undecided	80	10.0	10.0	10.0
Strongly Disagree	16	2.0	2.0	12.0
Disagree	45	5.6	5.6	17.6
agree	372	46.5	46.5	64.1
strongly agree	287	35.9	35.9	100.0
Total	800	100.0	100.0	

**Research Question: 4**

e-learning should be adopted to allow married students to balance family and study demands ? As table 5 shows that 33.1 students strongly agreed, 45.8 agreed , 6.5 disagreed and only 2.1 % strongly disagreed . On the other hand, about 10.0 % were undecided on this statement.

**Table: 5**  
**frequency scores on question 4**

Likert Scale	Frequency	Percent	Valid Percent	Cumulative Percent
undecided	100	12.5	12.5	12.5
Strongly Disagree	17	2.1	2.1	14.6
Disagree	52	6.5	6.5	21.1
agree	366	45.8	45.8	66.9
strongly agree	265	33.1	33.1	100.0
Total	800	100.0	100.0	

### Research Question: 5

can student's intention to adopt e-learning be predicted by student's pressure to use e-learning ? linear regression analyses revealed a statistically-significant model for pressure to use e-learning as the best predictor of level of student's intention to adopt e-learning (  $F=37.737$  ,  $df=1$  ,  $R\text{ square}=.187$  ).

### DISCUSSION

The results show that many Iranian post graduate students agreed on these statements: "e-learning should be used to reduce travel related stress ." "e-learning should be offered fully online should ". "e-learning be adopted to allow working students to study from home to reach students living in remote areas "Hence, Program managers can focus on these benefits of e-learning for postgraduate university students. Further, pressure to use e-learning explained 18.7 % of the variance in the dependent variable of student's intention to adopt e-learning .

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