Investigation of E-learning Acceptance in Teaching English Language Based on TAM Model

1Farnaz Vali Moghaddam Zanjani, 2Morteza Ramazani
1English Language Teaching Department, Islamic Azad University, Science and Research Branch, Zanjan, Iran
2Management and Accounting Department, Zanjan Branch, Islamic Azad University, Zanjan, Iran

ABSTRACT
Electronic education and learning is one of accomplishments of mankind which has affected the world tremendously. Since 1990 advancement in technology has led to increasing integrity of electronic-learning courses and also language learning courses. The objective of this study is to examine acceptance of e-learning technology carried out by English teachers and students based on technology acceptance model (TAM). In order to achieve the objective of the research, the researcher has employed descriptive-survey method and also questionnaire and interview with English students and teachers who constitute population of the research. To test the hypotheses of the research, the researcher has employed Pearson correlation test along with SPSS software. The results of the research indicate lack of Perceived ease use and Perceived usefulness of e-learning technology in teaching English.

Keywords: E-Learning, TAM Model, Perceived ease use, system usage, Zanjan-Iran

1. INTRODUCTION
What factor or factors causes a person to accept a new technology? Do these factors merely depend on features of the technology itself? Do characteristics of people have an impact on this acceptance? Regarding fast growth in computer use in organizations, in recent decade's information technology has had relationships with almost all aspects of our lives. Almost every person and organization attaches importance to computer literacy and skill. Computers are utilized in a broad range of areas such as education, trade, entertainment, connection and everyday life. For instance concerning the area of computer education, internet, multi-media instruments and computer networks are utilized and institutions and their instructions make use of technological instruments to enhance the quality of their performance. On the whole organizations employ information technology to enhance efficiency of occupation, efficacy and better quality. They are disposed to make use of information technology since they believe it can provide advantageous opportunities for organizations and have a key role in helping organizations to enhance efficacy and performance (Nunn and Quinet, 2002). Of course not always do organizations enjoy the mentioned advantages as a result of utilization of information technology since enjoying the advantages is dependent on efficient use of systems of information technology. Organizations do not utilize computer systems appropriately. Although organizations expend financial resources for purchase and installation of computer systems to enhance efficacy and performance, their success is not always guaranteed. When people show resistance against utilization of technology, the marked advantages are not achieved. Therefore organizations lose their time and resources (Nunn, 20010).

Combining electronic technologies in the process of education is necessary and undeniable since learners should learn how to live and work in a society whose electronic media continuously make them face cultures and values different from native ones (khosravi, 141: 1386). E-learning is a modern method in learning which provides learning opportunities to enhance knowledge and skill through internet and computer networks and has turned the nature of knowledge acquisition from teaching to learning (Hallkett, 2002). E-Learning is a method of learning which has taken form on the basis of application of information technology and computer networks (Amin poor, 91: 1384). Regarding the effect of globalization on the increase of the number of language learners especially English, advancement of education is a global necessity and the most useful solution in E-Learning (Faramarzian, 1384). Today E-Learning is dependent on web-based education and computer networks. Today internet literacy is a necessity as was computer literacy ten years ago (Webb, 1997). Online education has characteristics such as cooperation, connection, pivotal learning, infinity, society, discovery, sharing knowledge, multi- sensational, verity (Tight, 1996). Elements of online education include: e-mail, field of study discussion and live conferences (Wangoola, 1996).

Acceptance of information technology by English teachers and students is crucial. In this research we try to examine E-Learning based on model TAM which is a behavioral model in accepting technology produced by Davis in 1989 in order to investigate the behavior of users towards information technology. Our focus is on convenience and efficacy perceived of E-Learning by English teachers and students. This study is produced in sections. The first section focuses on background and
literature. Section 2 focuses on design of the research including objectives, hypotheses and research methods and section 3 and 4 focus on findings and results of the research.

2. RESEARCH BACKGROUND

Heidari et al (2010) in a study under the title of ‘‘comparing the effect of teaching English with educational software and conventional method on progress of students’’ have concluded that not only is the utilization of educational software in teaching useful, but also the effect of it on progress of students is better than conventional method. Similarly English teaching with the use of educational software is effective in motivation of students towards learning.

In a study carried out by Almekhalafi, 2006 under the title of the effect of language learning with the assistance of computer on progress and motivation of primary school students as a foreign language in United Arab Emirates, 83 students were put in two groups of test and control. The control group attended English learning without the use of computer and the test group did with the use of it. The results of the study show considerable difference between the two groups leaving the advantage to test group. Besides the results showed that test group had more motivation to learn English than control group.

Chuan Kung, 2002 in a study investigated the effect of internet networks on learning various parts of English language such as conversation, comprehension, writing, intonation and grammatical structures. Thus he concluded that using these facilities can enhance learning in different parts of the English language and on the whole English language itself. Al-Kahtani, 2001. In a study carried out at a university in Arabia he examined the use of computer and educational software as an auxiliary device in teaching English. He announced that these devices can save a lot of time in teaching and also enhance learning English in students. Dela Cal-Fasoni, 2001 has also examined the effect of computer and internet on learning English language and concluded that this device enhances learning in students, boosts cooperation and participation among them and increases their oral skills concerning correct pronunciation of words.

Kendrasue, 2001 investigated the effect of computer software on learning English course and concluded that software and computer resources can improve learning English. Word processing in computer allows a student to say what he wants, has focus, without being slow or frustrated in writing, deleting and correcting or searching words in a dictionary. Different types of dictionaries cause a student to have complete access to words and their meanings and this in turn is a great advantage in learning meanings of words and phrases.

3. RESEARCH OBJECTIVES

This research investigates acceptance of E-learning based on model TAM among English teachers and students in town of Zanjan. This research follows the objectives below:

3. Investigating the effect of Perceived ease use on Perceived usefulness in accepting E-Learning.

4. RESEARCH HYPOTHESES

1. The Perceived usefulness has positive effect on acceptance of E-Learning by English teachers and students.
2. The Perceived ease use has positive effect on acceptance of E-Learning by English teachers and students.
3. The Perceived ease use has positive effect on the perceived efficacy.

5. RESEARCH METHODOLOGY

The method adopted in this paper is descriptive-survey and of applicable type. Field method has also been used to enter the realm of the research. In this study two types of data, primary and secondary have been employed which the secondary data include books, documents, papers, internet search engines and relevant sites. The techniques of questionnaire and interview have simultaneously been employed in order to gather primary data from population. The multiple choice questionnaire (Appendix I) of Likert from completely agree to completely disagree has been employed.

5.1 Population

English teachers and students from Islamic Azad University of Zanjan constitute population of this research.

5.2 Method of data analysis

The method of descriptive statistics has been employed for data processing and the method of deduction has been employed to analyze and interpret data. To test the hypotheses of the research and correlation of independent variables on each other the method of Pearson correlation coefficient has been employed.

5.3 Pearson correlation test

Correlation is a statistical tool to determine type and rating of a quantitative variable with another quantitative variable. Correlation coefficient of Bicky is another tool to determine the correlation of two variables. Correlation coefficient shows the degree and also type of relationship (direct and reverse). This coefficient is between
1 and -1 and in case of no relationship between two variables equals (0.00).

Pearson correlation coefficient (r) is calculated by the following formula:

$$ r = \frac{\sum xy - \bar{x}\bar{y}}{\sqrt{\sum x^2 - \bar{x}^2}\sqrt{\sum y^2 - \bar{y}^2}} $$

### 5.4 Validity and Reliability

Characteristics of a good test are: objectivity, ease of use, viability, ease of comprehension and interpretation, validity and reliability. The researcher has employed the method of (Cronbach's Alpha) for reliability and the amount of calculated Cronbach's Alpha by SPSS software equals 0.7. Thus the test has acceptable reliability and the answers have validity.

*Internal reliability:* In order to carry out internal validity the method of exploratory factor analysis has been adopted using SPSS software with KMO. The value of all factors $\geq 0.5$ indicates high rating of factors and internal validity of the questionnaire.

*External reliability:* for external reliability 10 questionnaires were given to interviewees and after a week the same questionnaires were sent back to them again and the results showed anonymity of opinions in the period of one week which in turn indicated good reliability of the questions.

### 6. RESULT AND ANALYSIS

#### 6.1 Descriptive statistics

Descriptive statistics of the participants are sowed in table No 1.

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>56</td>
<td>54.37</td>
</tr>
<tr>
<td>Male</td>
<td>47</td>
<td>45.63</td>
</tr>
<tr>
<td>Total</td>
<td>103</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Activity</th>
<th>Frequency</th>
<th>Present</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student</td>
<td>90</td>
<td>87.38</td>
</tr>
<tr>
<td>Teacher</td>
<td>13</td>
<td>12.62</td>
</tr>
<tr>
<td>Total</td>
<td>103</td>
<td>100</td>
</tr>
</tbody>
</table>

#### 6.2 Inductive statistics

##### 6.2.1 Test of hypotheses

For the purpose of testing the hypotheses of the research, The Pearson Correlation test has been employed for hypothesis 1, 2 and 3. For hypotheses 1 to 3 the approach of Claim and Deny has been adopted.

$H_0$: $p \leq 0$

$H_1$: $p > 0$ there is meaningful positive correlation

##### 6.2.2 First hypothesis test

Design of hypothesis: Perceived usefulness of positive effect on acceptance of technology by teachers and students of English language.

Regarding table No 1 correlation coefficient $0.342$ and $P$-value $=0.00$ the hypothesis $H_1$ at error level of 0.01 is accepted. Thus it is concluded that Perceived usefulness has positive effect on acceptance of technology from the viewpoint of students and teachers of English language.

##### 6.2.3 Second hypothesis test

Regarding table No.1 correlation coefficient $-0.176$ and $P$-value $=0.044$ hypothesis $H_1$ at error level of 0.01 is reject. Thus it is concluded that the Perceived ease use had no positive effect on acceptance of technology from the viewpoint of students and teachers of English language.
The researcher has recommended the following approaches (Taylor and Told, 1995). This matter is a weakness in utilizing results show weak attitude of people towards the fact that ease of use (PEU) and acceptability of usefulness by teachers and students of English language. The result of third hypothesis indicates positive effect of Perceived ease use on Perceived learning by teachers and students of English language. The result of second hypothesis test indicate loss of acceptance of E-Learning. The result of third hypothesis test indicate positive effect of Perceived usefulness on Perceived learning by teachers and students of English language. The results obtained from Pearson Correlation coefficient indicates positive effect of Perceived ease use on acceptance of E-Learning by teachers and students of English language. The result of second hypothesis test indicate loss of effect of Perceived usefulness on acceptance of E-Learning by teachers and students of English language and this in turn shows loss of ease of technology use relevant to E-Learning and loss of effect of that on facilitating English language teaching processes. The result of third hypothesis indicates positive effect of Perceived ease use on Perceived usefulness by teachers and students of English language.

6.2.4 Third hypothesis test

Regarding table No.1 correlation coefficient 0.296 and P-value=0.00 H1 at error level of 0.01 is accepted. Thus it is concluded that the Perceived ease use has positive effect on Perceived usefulness.

7. RESEARCH FINDING

This research tries to produce results of survey research by students and teachers of English language for the purpose of investigating acceptance of electronic education. The results obtained from Pearson Correlation coefficient indicate positive effect of Perceived usefulness on acceptance of E-Learning by teachers and students of English language. The result of second hypothesis test indicate loss of effect of Perceived usefulness on acceptance of E-Learning by teachers and students of English language and this in turn shows loss of ease of technology use relevant to E-Learning and loss of effect of that on facilitating English language teaching processes. The result of third hypothesis indicates positive effect of Perceived ease use on Perceived usefulness by teachers and students of English language.

8. CONCLUSIONS

Results indicate loss of correlation between perceived ease of use (PEU) and acceptability of E-Learning. The results show weak attitude of people towards the fact that utilizing E-Learning does not require strenuous effort (Taylor and Told, 1995). This matter is a weakness in accepting information technology in the area of E-Learning. The researcher has recommended the following approaches to enhance PEU of people towards E-Learning.

1. In order to enhance perceived ease of use (PEU) in accepting E-Learning, universities must promote the culture of using E-Learning (Allahyari and Ramazani, 2012).
2. Conducting courses in information technology education in order to enhance perceived ease of use of E-Learning.
3. Encouraging students and teachers who are active in the area of E-Learning.
4. Following universities which have been successful in utilizing E-Learning systems.
5. It is necessary that universities pay a lot of attention to more E-Learning in the framework of strategic planning.
6. Building essential infrastructure in order to establish and utilize E-Learning at universities.
7. Examination of individual, cultural, social and economic shortcomings in establishment and utilization of E-Learning.

Consequently the researcher recommends that in future studies, individual, social and organizational factors affecting acceptability of E-Learning be investigated more, like studies conducted by Ramazani et al 2012 in the area of accounting.

9. REFERENCES

teaching English through software and conventional method on students’ progress. Journal of information technology in social sciences. 1 (1).


Appendix I

Questionnaire

Perceived usefulness

1. Being acquainted with E-Learning and relevant tools helps improve my learning performance.

2. E-Learning is useful in language education.


4. Use of E-Learning leads to my increased productivity in learning English.

Perceived ease of use

1. It is easy for me to use E-Learning in learning English.

2. It is easy for me to learn to use tools concerning E-Learning.

3. Use of E-Learning paves the way for education.