



## **E-learning System – Challenges & Barriers: A Case Study**

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### **Abstract**

E-learning provides higher educational institutes an alternative way to provide knowledge to distance learners; instead of the traditional way. The aim of this study is to identify the Causes of barrier of e-learning programs in Zarqa University- Jordan. At its core the problem is lack of awareness and not accepting the transition from traditional education to E-learning. We searched for the causes of this problem and proposed some solutions to them. A cross-sectional study based on a questionnaire was conducted among random sample of 100 students of different specializations. We used the SPSS program to extract the results, relationships and the impact percentage of each factor on the awareness and acceptance of the transition. We found that there exists an impact of pre-training of the students, the school year, specialization and their mastering of modern technology; we also found that the most influential factor is the attachment to students to ways they were accustomed to. Various other factors were examined but found no significant effect on the awareness and acceptance of transition which are; the former method of education received by students, the duration of use of everyday technology, culture of the community around them and facing fear and worries about the use of new means. As a solution for these reasons we have proposed to give training to new students on the use of technology and e-learning. To make seminars and conferences to talk about the importance of e-learning and its benefits, and hold meetings between old and new students of different majors and exchange of knowledge amongst them.

**Keywords:** Key words: E-learning; E-learning challenges.

### **1. Introduction**

A revolution has erupted in all facets of everyday life due to the rapid development and the qualitative leap in technology; particularly in the field of learning. All kinds of connections (telecommunication and communication) have been simplified, making it easier to overcome barriers of time and space and transforming the world into a small village where people can connect and interact with each other face to face, despite being thousands of miles apart. That made the e-learning more popular and became necessary to include it to become as important as traditional learning. We can define the e-learning as "the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources."

This scientific and technological revolution that is manifested in today's world was the reason that knowledge became an essential resource and a compliment of natural resources. And the access to this age of knowledge is based on the exploitation of new technologies in various areas of contemporary life. Many problems aroused during the transition period from traditional learning environments to successful interactive virtual environments. We will talk in our research about the problem of lack of awareness and not accepting the transition towards e-learning technology.

The aim of this study is to demonstrate and explain the Reasons of problems that will occur while transition from traditional education to e-learning, propose and give some ideas that contribute to the solution of these problems facing learners. Technology today is considered to be the essential material of modern and future with which nations are characterized, Thus, we find that the countries are classified by

this standard into developed, developing or undeveloped And it was found that If we remove these obstacles from the e-learning It becomes a successful tool that helps students and increase their efficiency and make it more inclined to learning and training , which also make the information available to people anywhere and In all time, the e-learning contributes in the development of thinking and enrich the learning process, makes the knowledge stays with us anywhere. Hence this makes the teaching methods rely on e-learning as time passes.

## 2. Literature review

Parvin [1] during his studies to find the barriers that affect the e-learning, he noted concerns about the use of computers is mainly due to the absence of a positive look to e-learning for the significant impact in future and in the development of education, and that the knowledge of lecturers using computer skills help more in e-learning success.

Ahmed & Dr. Karsten [2] found that satisfying the users is considered to be one of the most important factors of success of e-learning, their research focused on the role of learning methods to achieve users' and learners' satisfaction, Based on that, when researchers follow new learning methods and aim at educational effects, they should not inform the students that the courses and teaching materials were based according to methods different from what they were used to and that it doesn't not reduce direct communication, which will decrease the virtual effect to such new methodology in learning, this will make scholars have an objective look towards e-learning, if they think that this new methodology copes with their previous methods and preferences.

karen [3] found a solution for the teacher's miss understanding of e-learning; That this study shows the changes in e-learning beliefs would not come always at the beginning, but changes in practices or changes in beliefs may come before, especially if we get a mixing between teachers' quotas and students references. This study reveals the value of long research in university teachers' beliefs. The method of data collection was interviews.

Miroslava & Svetlana & Aleksandar [4] found a solution to the problem of transition from traditional education to electronic and lack of understanding of students to their professors, where he proposed a transition module for the implementation of e-learning, and discussed the problem of students who were accustomed to traditional education, and that they should carry out activities, implement interactive learning and evaluate themselves, because these activities help them realize the importance of this method of education where the results depended on a questionnaire distributed to students.

Tarus & Gichoya & Muumbo [5] discussions about the challenges facing the Kenyan public universities, facing the experienced in the implementation of e-learning and proposals of possible solutions for the success of their implementation , the purpose of this study was to identify the challenges impeding the implementation of e-learning in Kenyan public universities , data has been collected through questionnaires and interviews. The results indicate that e-learning comes with some of the challenges that must be addressed in the Kenyan public universities before the successful implementation is achieved, some of these challenges were: the lack of technical skills in e-learning , no development of the electronic contents by faculty members , and Lack of interest and commitment among members faculty to use e-learning. However, the advantages and opportunities offered by e-learning outweigh the challenges.

Seyed, Azam, Bibi [6] This research aims to clarify the barriers and factors affecting the non-participation of instructors teaching online. They said it must be a new learning environment; there must be a different kind of institutional support, especially in the context of developing countries. Faculty members need to receive training on professional development on education online and requirements to be encouraged to share teaching online have a more successful transition in the development of their teaching.

Al-Azawei & Lundqvist [7] They cast some light on major challenges that hinder effective application of e-learning in developing nations. And confirmed that the results of existing studies over obstacles and reasons that led to e-learning integration in developing countries, and filled the gap regarding the nation context. Causes later to implement e-learning may encompass the previous isolation of staff members of the

scientific world, the delay of introducing e-learning technologies to Higher Education, and the continuous national instability and insecurity.

Elba & María & Arrufat & Aurelio [8] found that the problem facing the students in using e-learning may be psychological, such as anxiety about the use of new methods or problems in communication between colleagues and professors; which was analyzed through text analysis of contents of forums, chats and e-mails. Also they found that the solution is that professors knows the obstacles facing students and do maximize efforts and investments involved in making high-quality courses and reduce obstacles without meeting online communication.

Kisanga & Ireson [9] saw in their study that the most important obstacles and problems facing Tanzania during the application of e-learning were collected. Data were collected from a series of interviews. Some of the key barriers were identified such as: Inadequate support awareness of e-learning , Lack of knowledge of e-learning and teachers' resistance to change. The study recommended that training in e-learning needs to provide teachers and administrators: financial and technical support and administrative oriented towards the success of the adoption of electronic Education, in short, the study suggests that institutions can promote all strategies that focus on the provision of awareness of e-learning for all stakeholders in higher education since the awareness deepens the perception of the usefulness of e-learning in education approach.

Marie & Victoria & Piers [10] They found that it should be considered in training to refresh information for those employees of little practice, The present paper reports the outputs of a focus group examining the perceived uses, and the solution is staff training on the efficient and effective use for these new methods. And the appointment a supervisor in charge that have an experienced skills in case there is any problem of the employees come back to him.

### 3. Research methods

The research will be an understanding of the causes of the difficulties faced by students during their transition from traditional education to electronic education. Quantitative data will be collected through a survey. The sample concerned was from students facing the transition from traditional education to e-learning phase from various majors and years of study in Zarqa University. In quantitative research the process by which data analysis is undertaken is fundamental to determining the credibility of the findings. Essentially it involves the transformation of raw data into a final description, narrative, or themes and categories.

### 4. Data Analysis

For the analysis of the data collected for this research, we used quantitative research method in SPSS statistic program. The arithmetic mean and standard deviations were calculated etc (in table 3). For each of the factors that have been linked to the study of the increase of awareness and motivation to move to e-learning environments for students. The amount of relationship between factors and their impact on the process of transition to e-learning was also calculated a random sample of students from different majors was selected to be a sample of the study, the total surveys were 100.

<b>Descriptive</b>	<b>Frequency</b>	<b>Percent</b>
Year		
Valid		
year 1 &2	47	47.0
year 3 & 4	53	53.0
Total	100	100.0
Specialization		
Valid		
Literary	22	22.0
Art	4	4.0

Scientific	17	17.0
IT	57	57.0
Total	100	100.0
Mastering modern technology		
Valid0		
%-25%	5	5.0
25%-50%	19	19.0
50%-75%	42	42.0
75%-100%	34	34.0
Total	100	100.0
Previous way of education		
Valid		
by traditional methods	60	60.0
by technology methods	2	2.0
mix between two ways	38	38.0
Total	100	100.0
Society's culture		
Valid		
disagree	11	11.0
agree	63	63.0
totally agree	26	26.0
Total	100	100.0
The accepts of transition towards e-learning technology		
Valid		
no	48	48.0
yes	52	52.0
Total	100	100.0
First time using technology		
Valid 1 year	12	12.0
2-5 years	43	43.0
More than 5 years	45	45.0
Total	100	100.0
Daily use of technology		
Valid less than 1 hour	18	18.0
1-3 hours	60	60.0
More than 3 hours	22	22.0
Total	100	100.0
stick to old methods		
Valid		
disagree	12	12.0
agree	49	49.0
totally agree	39	39.0
Total	100	100.0
Facing fear and anxiety when using new methods		
Valid		
no	28	28.0
yes	72	72.0
Total	100	100.0

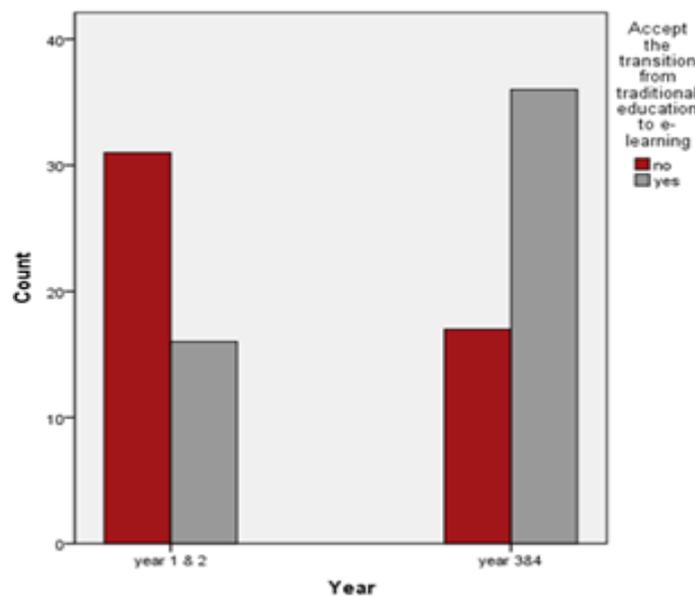
**Table 1 Frequencies**

Bivariate Association	Statistics	
Accept the transition towards e-learning technology Year	tau_b	.338**
	rno	.338**
Accept the transition towards e-learning technology Specialization	tau_b	.321**
	rno	.340**
Accept the transition towards e-learning technology Mastering modern technology	tau_b	.187*
	rno	.200*
Accept the transition towards e-learning technology Previous way of education	tau_b	.034
	rno	.034
Accept the transition towards e-learning technology The existence prior training	tau_b	.399**
	rno	.399**
Accept the transition towards e-learning technology First time using technology	tau_b	.032
	rno	.034
Accept the transition towards e-learning technology Daily use of technology	tau_b	.026
	rno	.028
Accept the transition towards e-learning technology stick to usual methods	tau_b	-.464**
	rno	-.483**
Accept the transition towards e-learning technology Facing fear and anxiety when using new methods	tau_b	.025
	rno	.025
Accept the transition towards e-learning technology Society's culture	tau_b	.148
	rno	.153

**Table 3 Bivariate Correlation Analyze**

**4. Result**

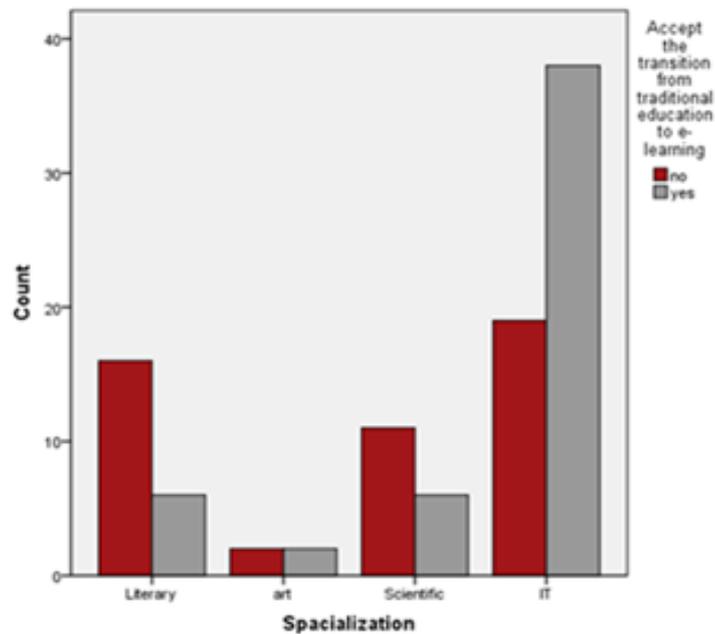
First relationship we found between the academic years and accept the transition from traditional education to e-learning. We found a strong positive correlation between them whenever the student moved to the top of years whenever students acceptable to use technology.



**Figure 1 The Accept transition by year**

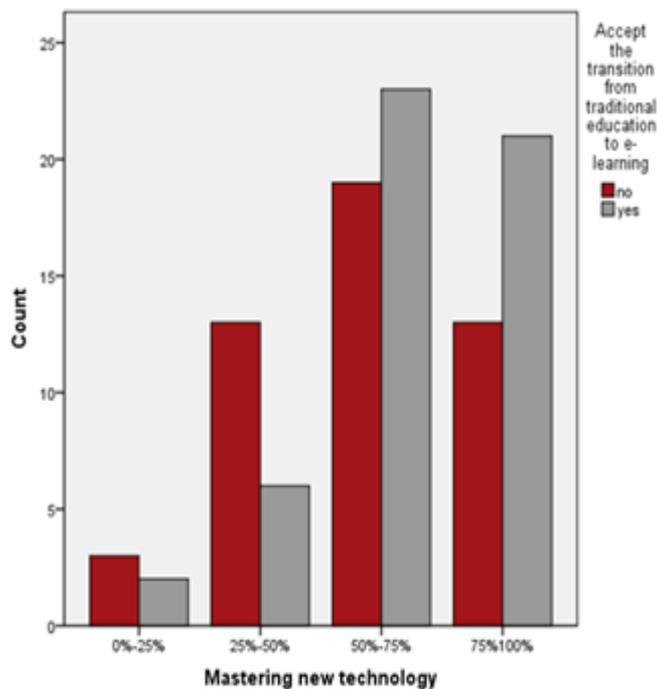
We also found a relationship between a student with a specialization accepted for transmission and awareness of its importance. We have noticed through the analysis of the scientific and literary disciplines

do not accept much of this transition, while students with specializations specializes in technology has been a great and remarkable significantly acceptance.



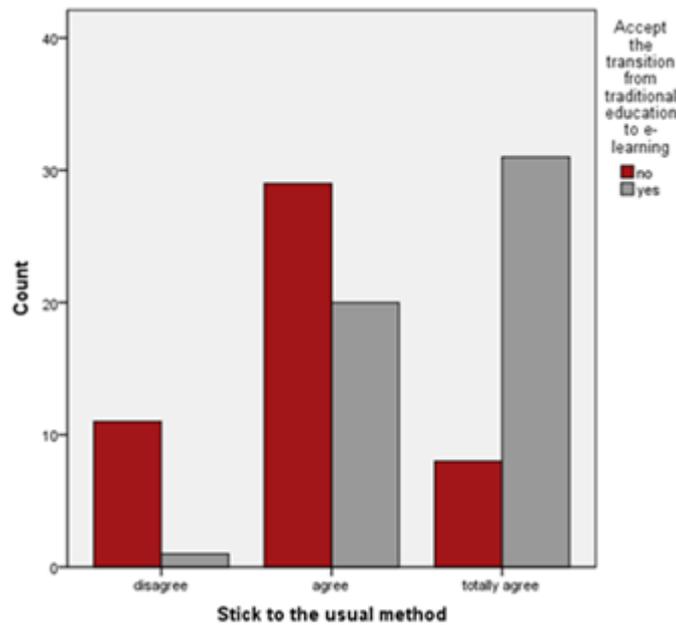
**Figure 2 The Accept transition by specialization**

In addition, there is a direct correlation between the percentages of students mastering computer use and acceptance of the transition and the presence of an incentive to use e-learning.



**Figure 3 The Accept transition by mastering computer**

It appeared to us that the most common reasons impact on the transition process is stuck the student with the methods that they used to deal with it .The more non-acceptance of the change, the less acceptance to move to e-learning with the increasing of the acceptance to new methods the motivation and acceptance to move e-learning will increase.



**Figure 4 The Accept transition by stuck with the methods**

## 5. Conclusion

Depending on the importance of the inclusion of e-learning both as a complement to traditional education or replace it. So problems that hinder the transition to e-learning should be removed. Our research has discussed the problem of lack of awareness and lack of students accepting the transition from traditional education to e-learning in Zarqa University. And through the analysis of the questionnaire attributed we reached to five main reasons affecting the awareness and acceptance of students to move to e-learning. The most effecting factor was students' attachment to methods they were used to which reduced the ratio of awareness and acceptance of the transition to e-learning, and showed that junior students were less receptive than students in advanced years, and also one of the reasons that reduced the acceptance is the lack of training earlier on modern technology, and lack of mastering its use. We also noticed a relationship between students' major, and acceptance of transition was better with students related to informatics technology than literary and scientific majors. We also examined several factors that earlier studies had indicated, the existence of a relationship between them and the problem of lack of awareness and lack of acceptance of the transition and we have found that its impact was very little to mention, these factors were the facing students to the fear and anxiety of the use of new methods and duration of use technology every day and the way the previous education they received and the culture of the society around them, and the time of entry of Technology into their life. As a conclusion of research we suggest implying periodic training for new students on the use of e-learning and technology and the contribution of the faculties of the students. We also recommend the existence of meetings between old and new students of different majors to exchange knowledge among each others.

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