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Obstacles to the Spread of E-Learning in the Arab

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Abstract

The explosive growth of information, communications and technologies (ICT) has greatly affected the educational sector and the academic environment in particular all over the world. However, and for many reasons, new educational trends, such as online, distance and e-learning in Arab countries are still below the international standard. This study aimed to investigate the obstacles hindering the spread of e-learning in the Arab countries. A questionnaire was designed to find and investigate the scope of the expertise in e-learning. The questionnaire items were designed to deal with four types of barriers; student barriers, teacher barriers, management barriers and high level management barriers. 400 of Arab universities teaching staff members were randomly selected to give their views on 48 statements of the questionnaire. The results showed that the main obstacles are: the need for face-to-face communication between teachers and students, lack of English and computer skills, lack of technological infrastructure and lack of legal framework that may let the adoption of this kind of education be possible.

Keywords*: e-learning, e-university, open learning, distance learning*

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Introduction

Education at the university level today is gradually moving to depend on e-learning applications all over the world, while it is still sticking to traditional patterns of educational systems in the Arab countries. New educational systems, such as Open Source, Online, Distance and Blended Learning, which use new information and communication technologies, are still unrecognized or accredited in most of the ministries of Higher Education in these countries.

There are a number of factors that lead to this result which may relate to the culture, infrastructure or the lack of human and material resources, or simply because this new technology is still new in this region of the world [13]. On the other hand, E-Learning has been introduced through so many ways and under so many titles: Online, Distance, Open, Virtual, Blended, Flexible, Mobile learning and so on, which are explained by authors and researchers in various ways as well. This makes it more difficult and time consuming to justifying each application when introduced to traditional governmental systems, whereas Education in the 21st century is rapidly heading towards more progressive applications for active communication and effective learning, and expanding the use of Internet to promote creative thinking and problem solving approach in order to meet the growing needs of the society [1, 9].

E-Learning utilizes several unconventional strategies to provide active learning that can guarantee the achievement of educational goals. It aims at the application of Open Source Systems, including Internet and social media, to develop students' self-learning skills through a number of innovative approaches such as problem solving, investigation, creative thinking and team activities. It has been well approved that E-Learning also makes communication, whether synchronous or asynchronous, between students and their teachers or among students, more active, and so more fruitful. This is apart from its high accuracy in facilitating the application of objective and well-designed tests [15].

Applications of E-Learning have achieved grate success, particularly at the university level. It has become possible to provide learning opportunities to a greater number of learners regardless of their age, place and way of living. It has provided them with more opportunities in the labour market. E-Learning utilizes various teaching methods, strategies and curricula designs in order to respond better to individual needs and differences. In this, all new communication technologies, such as Facebook, Viber, WhatsApp, Skype, Pal talk …, etc., are being used to provide more effective learning and more fun [2, 6].

On the other hand, the management of educational process using Learning Management Systems (LMS) has shown great accuracy to manage educational institutions and organizations and their activities, whether in students' registration, absence monitoring, fees payment or arrangement of daily and weekly schedules, or directing tests, reports documentation and easy networking with teachers, staff, students, and other social bodies. Digital technology has become a major cultural and social and educational tool for change [14].

As far as high level governmental policies are concerned, new technology has provided decision-makers with great opportunities to fulfil their targeted standards of education at all levels. E-learning technology, in particular, has strengthened the efforts of societies in providing growing learning opportunities to the broadest possible cross-section of citizens, by creating flexible environments to upgrade learners' knowledge and skills. This makes learning outcomes, especially at the university level, at the service of local market requirements, and that in turn, contributes to the modernization of life in these countries [11, 12].

However, E-learning still faces a number of objections and criticism in many societies, including the Arab society, which make decision-makers hesitant to give e-learning its full opportunity to spread and expand. Only little has been done in this respect. Many of the decision-makers in the educational sector in the Arab countries believe that e-learning gives the student the opportunity to obtain knowledge with less effort and seriousness. They think that it weakens the student-teacher direct and close relationship. The lack of direct communication in e-learning among school administration, teachers and students, as they believe, raises doubts about the effectiveness of this relationship and how positive the impact on the output of the educational process will be. The applications of fully computerized examinations also increase doubts about accuracy of this type of exams when compared with traditional ones. These effects, may passively affect younger and undergraduate students in particular [10].

In addition to this, it is widely believed that there are several social and moral risks in using Internet by students, especially the youngest. Parents and educators are so reluctant to widen the use of new communication technology in education in such conservative societies of these countries, where people are keen to preserve their mother language, traditions and cultural values. Moreover, there is a

need to develop the necessary infrastructure to build up e-Learning environment at the national level which requires more spending. This is in addition to the permanent need for upgrading skills of teachers and workers in this field, and to update the regulations and new programs required for the pursuit of modernization and development [6].

Initial research in e-learning sites on the web reveals the extent to which e-learning has been utilized at the various levels of the educational ladder, particularly at the university level in developed countries, while this is not the case in the Arab countries and so many other developing countries. Therefore, it is necessary to look for the causes which hinder the Arab countries from keeping pace with developed countries as far as e-learning is concerned. This has been a major issue to be studied by a number of M. Ed. & Ph. D. researchers in the Arab universities [3-5], [7-8].

Despite the great concern about adopting e-learning in the Arab countries to provide more educational opportunities to learners, especially at the university level, E-Learning is still considered a controversial issue which requires further research to define the obstacles facing the spread of this type of education in these countries.

The Design of the Questions and Variables

The basic expressions used in the study are defined as follows:

1. **E-learning:** Internet-based learning, with open sources.
2. **Distance learning:** A type of learning where there is no face-to-face communication between teachers and students.
3. **Open learning:** A type of learning based on an unspecified number of communication media and tools which are available to the learner, including the Internet.

The study questions are concentrated on:

1. What are the causes impeding the spread of e-learning in the Arab countries that relate to students, from the viewpoint of teachers?
2. What are the causes impeding the spread of e-learning in the Arab countries that relate to teachers, from the viewpoint of teachers?
3. What are the causes impeding the spread of e-learning in the Arab countries that relate to educational administration, from the viewpoint of teachers?
4. What are the causes impeding the spread of e-learning in the Arab countries that relate to higher administration (decision makers) from the viewpoint of teachers?

This study is gaining its importance from its effort to diagnose the specific reasons and obstacles facing the spread of e-learning in the Arab countries, which may pave the way to address these obstacles.

The study also gives decision-makers in the ministries and related bodies in the Arab countries to be aware of the obstacles that should be tackled in order to solve this problem.

The study variables are divided into two parts:

The independent variables are:

1. Obstacles faced by students.
2. Obstacles faced by teachers.
3. Obstacles faced by educational administration.
4. Obstacles faced by higher educational administration (decision makers).

The dependent variable is: The weak spread of e-learning in the Arab countries.

Methodology

The study used a questionnaire to get responses of Arab universities teaching staff members. The questionnaire consisted of 48 questions divided into four groups; questions related to students, teachers, university departments and decision makers. The questionnaire was subject to the content validity and reliability procedures. Five senior university teachers were asked as referees to assess the validity of the questionnaire, and thus 5 items of the questionnaire were rephrased. Using Cronbach's alpha, the content validity was shown to be 82%.

The sample of the study consisted of 400 teaching staff members randomly selected through e mails from various Arab universities. The results of the study are limited to the Arab teachers' viewpoints at the Arab universities. The researchers used percentages, averages, and standard deviations determining the results of the study.

Results and Analysis

Functional Expertise in E-Learning

The first set of questions deals with the using of devices and tools related to e-learning as shown in Table 1. Figure 1 and Figure 2 show the percentage of expertise and standard deviation of expertise respectively. The first four questions indicate that there are good knowledge of the tested sample for using of computer, Internet and data show, while for mobile phone there are some misunderstanding. On the other hand to analyse the second four questions it is clear that the tested sample has a lack of knowledge of e-learning software, e-universities, educational software and e-learning training courses.

Table 1. Functional Expertise in E-Learning

No.	Type of Experience	V. high	High	Medium	low	V. low
1	Use of computers in education	160	210	100	0	20
2	Use of Mobile phone in education	30	150	90	110	20
3	Use of Internet in education	140	190	40	30	0
4	Use of data show projector in teaching	190	110	40	50	10
5	Use of e-learning software	100	110	90	30	70
6	Teaching in e-universities	20	100	90	90	100
7	Producing educational software	40	50	80	130	100
8	Participating in training courses in e-learning	30	100	150	100	20

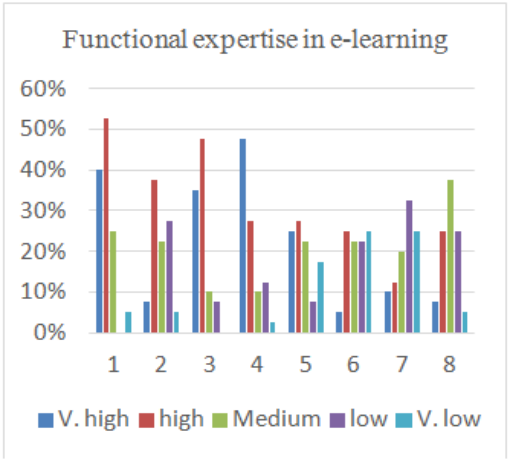

Figure 1. percentage of expertise

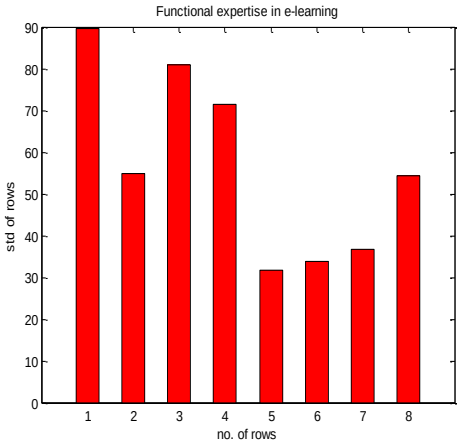

Figure 2. Standard deviation of expertise

First Issue: Student

This set of questions deals with the student barriers related to e-learning as shown in Table 2. Figure 3 and Figure 4 show the percentage of students and standard deviation of students respectively. The first nine questions (1-9) indicate that the majority of the tested sample concentrated on the agree answer with some deflection of the answer of question (3) "resort to the Internet when asked to provide homework" in which it goes to strongly agree. The second set of five questions (10-14) the majority goes to disagree, except the last question (15) "Lack of encouraging environment to engage e-learning" in which the majority of answers is divided between strongly agree and agree.

Second Issue: Teacher

This set of questions deals with the teacher barriers related to e-learning as shown in Table 3. Figure 5 and Figure 6 show the percentage of teacher and standard deviation of teacher respectively. These questions indicate that the majority of the tested sample concentrated on the agree answer with some deflection of the answer of question (20) "Lack of students' hard work in e-learning compared with traditional learning" in which it goes to disagree.

Table 2. First Issue: Student

No.	Items	S. agree	Agree	Neutral	Disagree	S. disagree
1	Weakly convinced of e-learning	70	160	30	110	30
2	Unhappy with indirect guidance	90	180	70	50	10
3	Resort to the Internet when asked to provide homework	170	110	60	60	0
4	Face difficulties in expressing themselves in computerized exams	70	150	50	100	30
5	Do not enjoy the benefits of traditional university life	120	160	90	20	10
6	Lack of human relations with their teachers	30	180	40	140	10
7	Lack of skills needed for this type of education	90	180	60	70	0
8	E-learning weakens the open dialogue between students	40	150	20	60	30
9	Lack of English Language skills needed for E-learning environment	150	170	40	40	0
10	Feeling that e-learning weakens educational values	30	60	60	170	80
11	Less future job opportunities in comparison with traditional graduates	50	100	80	120	50
12	Less competitive opportunities between students	30	150	0	190	30
13	E-learning weakens the social interaction between students	70	90	10	180	50
14	E-learning gives fewer opportunities than traditional education in the acquisition of knowledge and skills	30	100	10	220	40
15	Lack of encouraging environment to engage e-learning	150	150	40	40	20

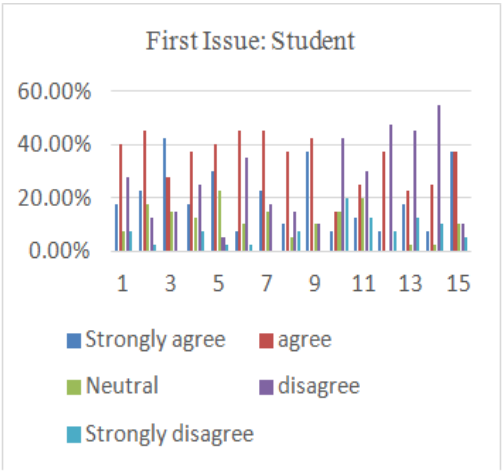

Figure 3. Percentage of student

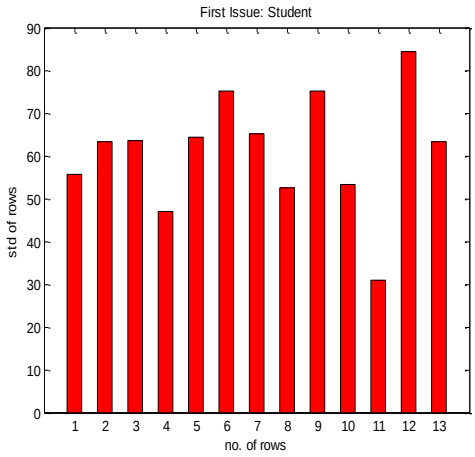

Figure 4. Standard deviation of student

Table 3. Second Issue: Teacher

No.	Items	S. agree	Agree	Neutral	Disagree	S. disagree
16	Less opportunities to direct communication with students	50	190	10	110	40
17	Weak role in guiding students to influence students' behaviour	40	210	0	110	40
18	No confidence in online (distance) exams	50	150	20	150	30
19	Increasing the burden of teacher to produce educational software	60	160	40	90	50
20	Lack of students' hard work in e-learning compared with traditional learning	10	90	40	210	50
21	Lack of humanitarian touch of teacher-student relationship	130	160	30	60	20
22	Lack of skills required for this type of education	180	190	30	0	0
23	E-learning gives students an opportunity to rely on ready-ma knowledge	100	150	20	120	10
24	The teacher does not have wide opportunity to evaluate students' daily activity except in tests	40	200	40	100	20
25	Lack of English skills needed in e-learning environment	100	170	50	50	30
26	Weak opportunity to disseminate educational values in this type of education	60	160	60	80	40

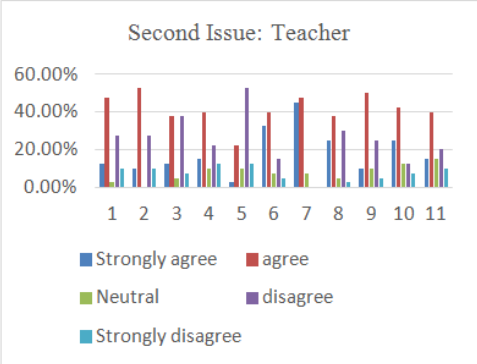

Figure 5. Percentage of teacher

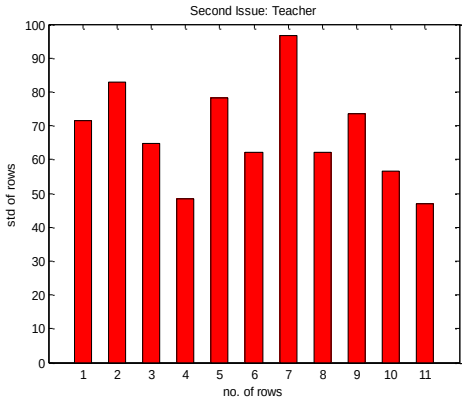

Figure 6. Standard deviation of teacher

Third Issue: Management

This set of questions deals with the management barriers related to e-learning as shown in Table 4. Figure 7 and Figure 8 show the percentage of teacher and standard deviation of teacher respectively. The questions (27-30) and (33) indicate that the majority of the tested sample concentrated on the agree answer. The rest of questions answer disagree with some equivalent between agree and disagree on the last question (38).

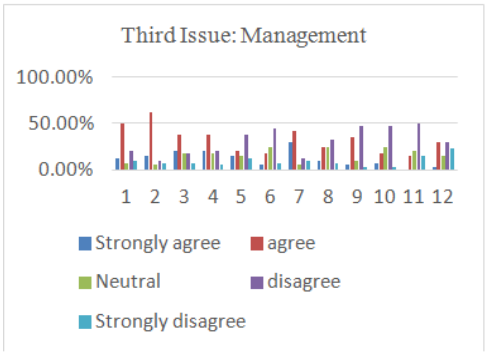

Figure 7. percentage of management

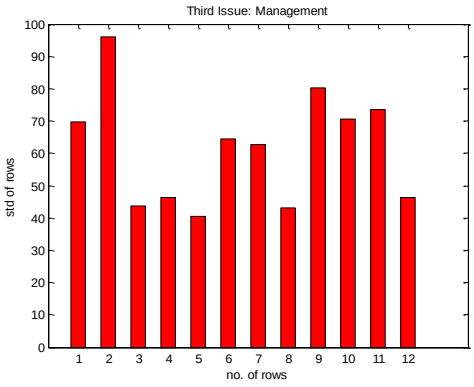

Figure 8. standard deviation of management

Table 4. Third Issue: Management

No.	Items	Strongly agree	agree	Neutral	disagree	Strongly disagree
27	Less opportunities to apply quality assurance standards due to online learning environment	50	200	30	80	40
28	Additional burdens for the management to assure a good follow up to the e- learning system	60	250	20	40	30
29	Poor communication with parents of students at the school level	80	150	70	70	30
30	Lack of skills to deal with e-learning administration environment	80	150	70	80	20
31	E-learning would damage traditional universities	60	80	60	150	50
32	E-learning would weaken the quality standards required by Higher Education	20	70	100	180	30
33	Lack of skills in English language required in e-learning environment	120	170	20	50	40
34	E-learning will reduce the demand for traditional Education	40	100	100	130	30
35	Indirect (online) communication weakens commitment to the educational values required	20	140	40	190	10
36	E-learning outcomes are of a lower standard compared with traditional educational outcomes	30	70	100	190	10
37	Will badly affect labour market	0	60	80	200	60
38	Establishing online universities badly affects investors in private universities	10	120	60	120	90

Fourth Issue: High Level Management

This set of questions deals with the high level of management barriers related to e-learning as shown in Table 5. Figure 9 and Figure 10 show the percentage of teacher and standard deviation of teacher respectively. The questions (40, 42) indicate that the majority of the tested sample concentrated on the strongly agree answer. On the other hand, answers of questions (39, 41) and (44-47) shifted to agree with some equivalent answers of question (43). The neutral answers seen clearly on the last question (48). The questions (27-30) and (33) indicate that the majority of the tested sample concentrated on the agree answer.

Table 5. Fourth Issue: High Level Management

No.	Items	Strongly agree	agree	Neutral	disagree	Strongly Disagree
39	High level management in higher education are not aware of the benefits of e-learning	110	170	40	60	10
40	Lack of infrastructure to provide e-learning education	200	150	10	20	20
41	Hesitation at the higher educational management level to adopt e-technology	130	160	40	40	30
42	Senior educational leaders do not having sufficient experience to enter into this field	190	160	40	0	10
43	Unable to afford for higher expenditure needed for establishing e-learning universities	90	90	90	90	30
44	Hesitation to start a “big fight” for an unguaranteed results	100	160	100	20	20
45	Inability of the ministries of higher education to train a sufficient number of teachers and technicians for e-learning	90	140	90	50	30
46	The lack of a legal framework that allows the adoption of this kind of education	130	150	100	0	20
47	Lack of legislation governing the interaction with e-environment (such as e-government)	110	170	90	20	10
48	Pressure on higher management to prevent adoption of this kind of education	90	110	150	30	20

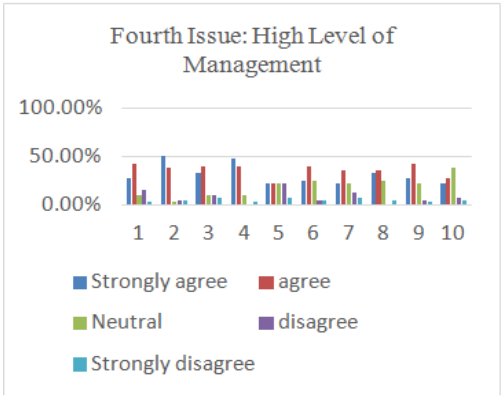

Figure 9. Percentage of management

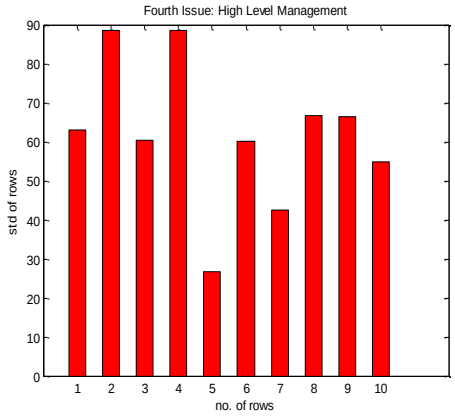

Figure 10. Standard deviation of management

Conclusions

According to the findings of this study, we can say that the majority of the tested sample tends to the traditional education. The Arab universities’ teaching staff members investigated in this study stated that the main obstacles facing the spread of e-learning in Arab countries are as follows:

1. The need for direct communication between teachers and students, which leads many teachers to insist on the traditional learning.
2. The lack of English Language and computer skills for both teachers and students, which means that the majority does not have the ability to cope with e-learning.

3. The lack of accurate technological infrastructure and legal framework which does not help in spreading such kind of education.

Other obstacles were related to students, teachers, management staff and decision makers that can be tackled if these countries intend to really employ e-learning for the benefit of Arab society.

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