

E-Learning System at Al-Balqa Applied University (BAU)

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ABSTRACT

Nowadays many universities in Jordan apply a technology that enhanced learning in order to help students and instructors which is called E-Learning Systems.

E-learning is becoming more popular way of education for the universities in our country with the high spread of internet and web based applications. This research aims to compare the effectiveness of E-Learning teaching to traditional classroom teaching depends on student's educational attainment results at Al-Balqa Applied University (BAU) and how much it impacts the students learning performance, participation and activity in their lessons .

This study found that, on average, students in online learning conditions performed better than those receiving face-to-face instruction thus, the results shows that there is a good improvement on the students outcomes when the E-Learning system applied on some teaching materials at BAU . On other hand, a trainee and developed programmers has been introduced to support the cultural change and to keep up the requirements of the labor market.

General Terms

E-Learning System, Distributed Learning, Hybrid Learning

Keywords

E-Learning System, Jordan, BAU

1. INTRODUCTION

Universities at these days are under pressure to do more with less, such as improving their student's outcomes while facing reduced budgets. One of solutions may involve moving is using E-Learning Systems instead of Traditional systems in teaching.

E-learning is the use of electronic media and information and communication technologies in education. it includes numerous types of media that deliver text, audio, images, animation and streaming video, and includes technology applications and processes such as audio and video tapes, satellite TV, CD-ROM and computer based learning as well as local intranet/extranet and web-based learning [1]. This is a very effective and excellent way of teaching especially in the higher education.

1.1 AlBalqa Applied University

BAU is a government-supported university located in Salt, Jordan, was founded in 1997, a distinctive state university in the field of Bachelor and Associate degree Applied Education, at the capacity of more than 21,000 student distributed into 10,000 at the Bachelor degree program and 11,000 at the Associate degree program. Al-Balqa' Applied University was formed by merging several colleges distributed over almost all of the Jordanian provinces. The merger was the result of royal decree, under the auspices of his majesty the late King Hussein to provide qualified professionals who focus on applied technical studies. A recent stadium was constructed to hold official graduation and ceremonies and was finished in 2011.

1.2 E-Learning System in Jordanian Universities

E-learning has been used very effectively in the universities of our country for enhancing the traditional forms of teaching and administration. At BAU, students in many courses now have a web access to the lecture notes and selected digital resources in support of their study; they have personalized web environments in which they can join discussion forums with their class and instructor. In addition, students can easily access the course even their away from the class room.

BAU E-learning system was built under the name of BEA which is abbreviation for (Balqa Electronic Academy) that was applied in the university center. Close to 14,500 students pass through center doors each year, studying ordinary English and Computer Science courses in manner that is not ordinary. All classrooms are equipped with computers, learning aids and online content that deliver a learning environment like no other.

In this research the study at Al-Balqa Applied University shows the impact of applying E-learning system on the student's outcomes and how much it affects their experience especially when dealing with a computerized environment. Full time students and faculty members are involved in this study which applied into four courses: Computer Skills101, Computer Skills102 (C++ course), English101 and English102.

The study compares the student's outcomes in the mentioned courses before and after using the E-learning system in BAU where the traditional system was used in the early years and E-learning system begin since 2007 in this university.

2. RELATED WORK

E-learning refers to the use of information and communication technologies (ICT) in different processes of education to support and enhance learning in higher education institutions. This includes the use of ICT technology as a supplement to traditional classrooms, online learning or mixing the both modes [2].

The term 'E-learning' has been applied in different contexts, such as distributed learning, hybrid learning and online-distance teaching [3]. In E-Learning Systems collaboration technologies are becoming increasingly widespread and it appears that media rich content is becoming the tradition of the web so online learning can be more flexible and often involves more technologies which are employed in the e-learning environment such as internet mediated teaching, web-based education, TV and radio broadcast, virtual classrooms, distributed learning, audio chatting, video conferencing and online discussion [4], [5]. All these technologies give learners the opportunity to interact with instructors and other learners effectively and flexibly.

The Hashemite kingdom of Jordan is located in the heart of the Middle East with 6.316 million population size. His Majesty King Abdullah II strongly believes that the

Information and Communication Technology (ICT) sector offers great potential to positively shape the future of education systems in the kingdom. This is demonstrated through the Jordan education initiative project (JEI), which was launched in 2003. This focused on a partnership development with Cisco systems to create an effective model of internet-enabled learning.

Jordan has rapidly expanded its higher education system although it has not yet produced a sufficient qualitative leap [6]. Reflecting the world's University sector moving forward with e-learning, Jordanians higher education institutions are responding accordingly. E-learning offers alternative

approaches to Jordanian traditional higher education institutions, encouraging them to re-evaluate the way they operate. In doing so, it provides potential to accommodate new information and communication technologies to enhance the student learning experience.

The demand for e-learning in Jordan is expected to rise in the next few years. This is due to the sharp growth of internet and mobile users and the high literacy rates considered to be the highest among other countries in the region. Owing to these booming advances in information technology, it is important for higher education institutions to embrace the technological developments, redesigning teaching trends and developing researchers in the educational domain [7]. The increased demand from students to change teaching methods in traditional lectures pushes higher education institutions to consider e-learning to provide online courses and e-training programs. Jordanian students realize that information technology is the future and, therefore, they are looking for more flexible opportunities of learning that help them to develop their skills and the educational outcomes. Accordingly, many Jordanian institutions have adopted e-learning to meet the increased demands for enhanced and flexible teaching methods.

Multiple researches were presented about E-learning systems in the Jordanian universities but not in Al-Balqa Applied University so this research makes a complete study about E-learning system effectiveness in BAU and how it impacts students' scores and skills.

3. EXPERIMENTS ANALYSIS

In this research the E-Learning occurs in the context of blended learning or hybrid learning which combines face to face education and online education.

Full time students and faculty members are involved in this study which applied into four online courses which are: Computer Skills101, Computer Skills102 (C++ course), English101 and English102. These courses have been teach at BAU since 1997 but the e-learning teaching method started at 2007.

The outcomes of students in these courses since 1997 to 2014 are spotted and the results partitioned into periods of time as follow:

1. First Period

This includes the years form 1997-2006, the E-Learning system is not applied yet.

2. Second Period

This includes the years form 2007-2008, the beginning of using E-Learning system.

3. Third Period

This includes the years form 2009-2014.

The average of student's outcomes on each period was computed for each course then compared together, as shown in Table 1.

Table 1. Students Outcomes Averages

Period \ Course	1997-2006	2007-2008	2009-2014
Computer Skills101	75%	70%	80%
Computer Skills102	70%	66%	78%
English101	75%	70%	80%
English102	72%	68%	79%

Fig. 1 below shows clearly the difference in the student's outcomes with and without e-Learning system.

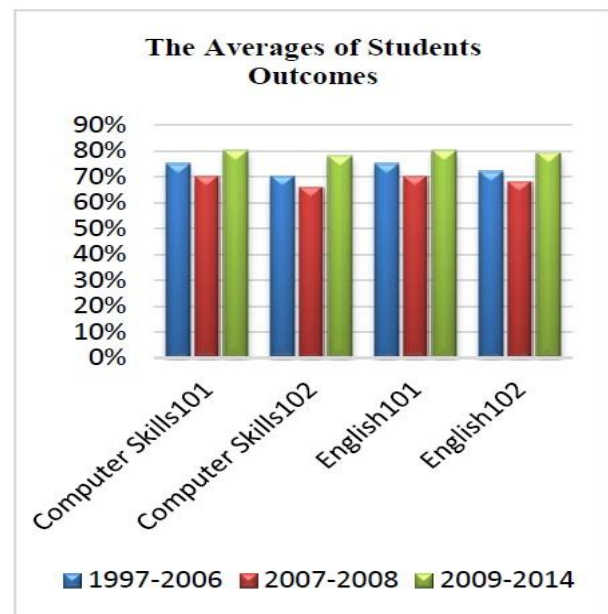


Fig 2: The Averages of Students Outcomes over the Periods

As notice in Fig. 1 above that the student's outcomes in the period 1997-2006, in which there is no E-learning system, was less than student's outcomes in the next years where the E-learning system is applied, except the first two years from 2007-2008 in which a decline in students outcomes have been seen. Thinking that the reason of decline in the results because this type of teaching was new and it was the first experience with some troubles for both students and teachers. But in the last period as shown there is an improvement in the outcomes results of the students in these online courses, which is a good way of teaching.

After asking students some questions about which way of teaching they prefer the class room or E-Learning teaching and why? , 80% of students prefer the E-Learning system in teaching because of different reasons such as:

1. They have different ways to get information such as: using audio, using video and texts.

2. They can get the needed lecture although they were absents.
3. Less paper use.
4. They can discuss their assignments and material together at any time and no need to be at the university to do that.
5. They can communicate using emails and the online website on which their material and assignments are uploaded.
6. The online exams are varied and they found it easier than paper exams.

4. CONCLUSION

This study found that E-learning system is an effective way to improve the quality of student learning by expanding the learning experience through increasing interactivity, participation, and communications. Courses with e-content get students more engaged and as a result deepen students' understanding and help them achieve higher order thinking skills. This will help in raising the performance in the University Achievement to high levels.

To improve teaching and learning and to support employability of lifelong learning, universities must adopt E-learning to improve students' skills and teach them new ways of managing knowledge and information; they can be more productive, find high-quality jobs, be self-learners, and have a positive impact on the success of their future employers, their families and their communities.

E-Learning can certainly help students and faculties keep abreast of the rapid changes in technology, the sciences, and other disciplines.

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