

Blended e-learning Approach at the University of Jordan

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ABSTRACT

Blended e-learning is a brand-new approach which is used for technology integration currently in Jordan. Meanwhile, many kinds of Virtual Learning Environments, such as Blackboard are emerging in the field of Jordanian Higher Education in the past decade for serving this new model. We designed a small-scale research for examining students' perceptions of blended learning, which is based upon an undergraduate courses offered at School of Information Technology in the University of Jordan, which applied the blended e-learning approach using blackboard. We interviewed 200 undergraduate students who were enrolled in different courses. In this paper, we provide a brief introduction of e-learning, focusing on blended approach, summarizing the experience of Blended e-learning initiative in the University of Jordan, and its influence on the students.

Keywords: e-learning, blended e-learning, face to face (F2F) approach, Blackboard.

1. Introduction:

The learning process needs techniques and tools to present the knowledge from different resources, interact with it and share it with others. e-learning is becoming an important tool to support the learning system to achieve its goals within learning process, and nowadays it is a common place among many schools and universities all around the world. The majority of universities in many different countries adopted some kinds of e-learning within its learning system, including the University of Jordan. The University of Jordan mainly uses the Asynchronous Blended e-learning Approach; where the communication between participants does not occur simultaneously, because neither students nor instructors can log on the system at the same time and communicate directly and virtually with each other also students rarely have compatible schedules to permit real time sessions, in addition to that the Synchronous technologies are too expensive to afford. In

2005 the University of Jordan adopted The Blackboard Learning System which is a Web-based server software platform that is use to add online materials to courses traditionally delivered through Face to Face (F2F). Such system of learning is not used as a replace for the traditional Face to Face Approach, but it can be use to enhance the learning process in the University. Many Students nowadays would not accept the traditional F2F learning approach only, but they are looking for unfamiliar new strategies such as the e-learning, thus there is a particular need to make online activities interesting and relevant to the students since they can quickly recognize if an activity is an 'add-on' and may consequently give it less attention. In this paper, Blended e-learning will be used which refers to an approach that mixes both; traditional F2F learning and e-learning [3,4,7].

1.1 Online Teaching Methods :

There are many methods for the online teaching such as:

- Asynchronous e-learning.
- Synchronous e-learning.
- Documents and lecture notes.
- Interactive Multimedia.
- Links to external resources and references.

1.2 Types of e-learning Approaches:

There are three types of e-learning Approaches [4]:

- Enhanced Approach: used to support, facilitate and enhance the F2F learning approach by using online technology.
- Blended Approach: this kind mixes traditional F2F and online learning, consequently, substantial portion of content is delivered online.
- Online Approach: it uses the virtual learning, which can be realized without any need to F2F meeting maybe online for the exams.

2. Blended e-learning :

Blended e-learning is the combination of multiple approaches of learning; it contains many models of teaching and styles of learning, we can define it as a hybrid of traditional F2F learning and different e-learning modes. Students take a course to be guided, most learners even highly motivated ones, need structures within which to pace their work, focus their study and concentrate their efforts. Blended e-learning can provide a self-paced structure for student to follow or to be guided throw, for example instructor may assign self-paced online modules to a group of students and also periodically bring the group together for F2F classes, presentations and group discussions. Nowadays, Blended learning is becoming increasingly common with the availability of both Synchronous and Asynchronous e-learning options, in addition to its major

advantages such as the flexibility and reduction of time and cost [3, 5, 6, 7].

2.1 Benefits of Blended e-learning

Here are the major benefits of adopted Blended Learning from the perspective of Students [2, 4, 5]:

- Blended learning has the potential to engage a variety of learning styles, enrich the overall learning experience, improve performance, provide stronger understanding and enhance the quality of the students' education.
- Students may access the course activities and materials whenever and wherever they want without any restrictions.
- Students may study at their own pace and speed; they can skip understood topics, and move to another topic or idea.

3. e-learning and Blended e-learning at the University of Jordan:

As mentioned above, in 2005 the University of Jordan adopted the Blackboard Learning system which is a widely used educational system, the edition that the university adopted is only the Basic Edition which is an introductory product of the Blackboard Suite that contains only course management, but not the advanced features of the such as: collaborative discussions, virtual classrooms, as well as testing and grading. Blackboard Course Management is all about Addresses activities involving managing the course site or major components of the course site. Course Management capabilities focus on effective creation and set-up of courses as well as tools for course archiving [1, 2].

3.1 Blackboard Benefits and challenges :

3.1.1 Benefits of the Blackboard Learning System

Students and faculty may benefit from course management systems such as the

Blackboard Learning System. Potential benefits include:

- Increased availability: Blackboard can be accessed from the internet at anytime anywhere, so students can retrieve all of their course materials including assignments, lecture notes and slides.
- Improved communication: Announcements are one of the several features of Blackboard that allow communication with students.

3.1.2 Challenges:

The list below shows the main challenges that face the Blended e-learning in the University of Jordan:

- Ensuring that students and instructors have the needed hardware, software and bandwidth cannot be guaranteed when implementing blended e-learning.
- The level of technical expertise of students may not be as high as expected; technology skill level can also be a key challenge for blended e-learning, since Blackboard is used by many students from different faculties who lack basic skills in computer.
- Students are much more familiar with F2F classes rather than the online materials, since they are not familiar with independent learning.
- Professional development for instructors to learn online teaching strategies and facilitation skill is important to any successful blended program.
- Instructors must be familiar with all of the technologies that are used in such a blended program to be able to support students.
- Students may have difficulty with such new learning environment; they need to have instructions and support on how to use such environment and that aims to facilitate learning without any complication.

4. Students Questionnaires :

4.1 Methodology:

We designed a small-scale questionnaire to investigate students' different perspectives of blended learning, we interviewed 200 undergraduate students who were enrolled in different courses in different educational levels, Students took the questionnaire based on the usage and perceptions of their learning experience with Blackboard. All these courses offered at King Abdullah II School of Information Technology in the University of Jordan, which applied the Blended e-learning approach using Blackboard.

4.2 Student Enrolment :

There were 200 students enrolled in this questionnaire, Table 1 indicating the apportionment of unit enrolment by Major. As can be seen, 56% of students were Computer Science (CS) students, 30% were Computer Information Systems (CIS) students and 14% were Business Information Students (BIS).

Table 1: Total Students by Major

Major	Number	%
CS	112	56%
CIS	60	30%
BIS	28	14%

The questionnaire was given to students to fill-in during the lectures time, initially students were asked if they had used Blackboard before and most of the questions were asked in regard to usage of Blackboard. Intentions behind these questions were to understand if students were utilizing the Blackboard and how do they depend on it, or whether it can be as an alternative to F2F approach.

4.3 Questionnaire Results

The Tables below show how the students answered the questionnaire, Table 2 and 3

below show that about 71% of students agreed and strongly agreed that the traditional F2F approach offer a better learning experience than the Blackboard and about 80% disagreed or strongly disagreed to replace F2F approach with Blackboard materials for all of their lectures. Table 4 show that 44.5% of the students believe that the Blackboard provide a better understanding of the subject, but on the other hand, 32.5% think the opposite that the blackboard didn't provide a good understanding, we have this variance in result since students have a different points of view according to the subject itself, because there are some subjects that do have good Blackboard material, lecture notes and slides, that are clear and easy to understand, compared to other subjects that do not include blackboard at all, and that what Table 5 and Table 6 shows. Table 7 shows that 61% of the student agreed and strongly agreed that they can use blackboard as make-up for the lectures that they missed, also about 59% of the students depend on the Blackboard, and that what table 8 shows, table 9 shows about 54% of the students have saved time by using the Blackboard. In Table 10, Table 11 and Table 12 we can see that the students believe Blackboard enhances the quality of their education, 65% either agreed or strongly agreed on that, also 61% of them find Blackboard provides the flexibility they need to learn effectively, and about 55.5% agreed on that Blackboard is an effective learning tool. At the end of the questionnaire, we asked the student if they found reading Blackboard materials from computer's screens is easy and as a result there was a kind of equivalence, 48% find it easy and agreed on that, where 49% find it hard, table 13 shows the results.

Table 2: Q1. Traditional F2F approach offers a better learning experience than blackboard.

Stance	%
Strongly Agree	34%
Agree	37%
Strongly Disagree	5%
Disagree	21%
Don't Know	3%

Table 3: Q2. Blackboard is an alternative to F2F approach.

Stance	%
Strongly Agree	3.5%
Agree	11.5%
Strongly Disagree	37.5%
Disagree	42%
Don't Know	5.5%

Table 4: Q3. Blackboard has provided better understanding of the subject.

Stance	%
Strongly Agree	10%
Agree	44.5%
Strongly Disagree	7.5%
Disagree	32.5%
Don't Know	5.5%

Table 5: Q4. Blackboard enhanced IT courses compared to other subjects that do not include blackboard.

Stance	%
Strongly Agree	19%
Agree	49%
Strongly Disagree	8%
Disagree	17%
Don't Know	7%

Table 6: Q5. Blackboard materials are clear and easy to understand.

Stance	%
Strongly Agree	13.5%
Agree	54%
Strongly Disagree	7%
Disagree	22.5%
Don't Know	3%

Table 7: Q6. Blackboard can be used as a make-up for the missed lectures.

Stance	%
Strongly Agree	18.5%
Agree	42.5%
Strongly Disagree	14.5%
Disagree	20.5%
Don't Know	4%

Table 8: Q7. You depend on Blackboard.

Stance	%
Strongly Agree	19.5%
Agree	39%
Strongly Disagree	7%
Disagree	29.5%
Don't Know	5%

Table 9: Q8. The use of Blackboard saves time.

Stance	%
Strongly Agree	36%
Agree	47.5%
Strongly Disagree	6.5%
Disagree	6.5%
Don't Know	3.5%

Table 10: Q9. Blackboard enhances the quality of your education.

Stance	%
Strongly Agree	12.5%
Agree	52%
Strongly Disagree	7.5%
Disagree	20%
Don't Know	8%

Table 11: Q10. Blackboard provides the flexibility you need to learn effectively.

Stance	%
Strongly Agree	16%
Agree	45%
Strongly Disagree	7.5%
Disagree	21%
Don't Know	10.5%

Table 12: Q11. Blackboard is an effective learning tool.

Stance	%
Strongly Agree	13%
Agree	55.5%
Strongly Disagree	7%
Disagree	18.5%
Don't Know	6%

Table 13: Q12. It is Easy to read from Computer Screen.

Stance	%
Strongly Agree	19.5%
Agree	28.5%
Strongly Disagree	20%
Disagree	29%
Don't Know	3%

5. Conclusion:

This research found that students interact with Blackboard in different ways and they want more control over their learning environment and technologies in use. The majority of students use Blackboard in addition to the F2F lectures. The student didn't consider online resources as an alternative for the F2F approach. The students demand to have more interactive resources on Blackboard like videos and online chat. We can conclude that the experience of using Blackboard could provide useful insights into how academics can utilize these new technologies to provide more fulfilling interaction with students.

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