

USING BLACKBOARD IN ONLINE LEARNING AT SAUDI UNIVERSITIES: FACULTY MEMBER'S PERCEPTIONS AND EXISTING OBSTACLES

Hanan Ahmed Zaki Hassan El Zawaidy*

***Assisted Professor of Instructional Technology and E-Learning _ Department of Curricula & Instructional Technology _ Taif University _ KSA**

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Abstract_ As online learning environment is growing among universities worldwide including developing countries, still, there are some difficulties that might interrupt the implementation of this environment; such as : Technological difficulties and/or Skills lacking. The aim of this research was to identify the obstacles are facing these faculty member in using Blackboard as a blended learning system. And recognized the perceptions of faculty members who involved in e-learning programs and trained to use the blackboard in Education. The sample surveyed in this study was 360 faculty member and instructors at King Saud University (Riyadh), King Khaled University (Abha) and Taif University- College of Education. Descriptive methodology has involved analysis of the implemented online system at these universities and how faculty member are interacting with that.

The main obstacles found in the study were: Lack of needed training and experience in using ICT (Information & Communication Technology) – lack of internet signal that interrupts continuous connection and smooth communication and lack of encouragement and restricted rules that oblige faculty member to develop their technological skills, the experience in using ICT especially in producing electronic materials such as: recording lectures via Echo application, upload videos on YouTube channel, slide share, flicer..etc.

Keywords: Higher Education, Taif University, King Saud University, King Khaled University, Blackboard, E-learning, Technology.

I. INTRODUCTION

The impacts of Information and Communication Technologies (ICTs) on the higher education sector have increased the awareness of many staff about the need to improve teaching and learning. This has lead to the development of new teaching strategies to accompany new technology. Online learning is one outcome of the rapid improvements in ICT.

At its most basic it provides students with better access to traditional teaching materials. But online learning offers much more, it can enhance learning processes and teaching experiences by offering new learning strategies. One of the most significant of these technological improvements is e-learning which has expanded opportunities for when and where learning takes place [1,2]. There is a variety of definitions of e-learning. For Sun, et al. [3] e-learning is simply “the use of telecommunication technology to deliver information for education and training”. Yucel [2] defines e-learning slightly more restrictively as “a web-based educational system on a platform with Internet, Intranet or computer

access”. Luckin, et al. [4] emphasizes the role of internet technology in allowing interactive and collaborative learning. This style of learning provides students with the resources to become more independent [5]. The advantages of enhanced communication between students and between students and lectures are commented upon by Mapuva [6]. Sife et al. [7] suggest the educational possibilities of e-learning by stating that it is “an essential complement to the traditional way of teaching (i.e. face-to-face)”.

And currently The Blackboard platform is one of the most educational systems used globally and specifically in Saudi University helping in Blended learning.

The Blackboard Learning System is a virtual learning environment and course management system developed by Blackboard Inc. It is a Web-based server software which features course management, customizable open architecture, and scalable design that allows integration with student information systems and authentication protocols. It may be installed on local servers or hosted by Blackboard ASP Solutions. Its main purposes are to add online elements to courses traditionally delivered face-to-face and to develop completely online courses with few or no face-to-face meetings.

It was founded in 1997 in USA as a power online education for wider institutional application. It provides users with a platform for communication and sharing content. These two ways includes: (Blackboard Inc.)

1. Communication

- Announcements: faculty member may post announcements for students to read. These can be found under the announcement tab, or can be made to pop-up when a student accesses Blackboard.
- Chat: This function allows those students who are online to chat in real time with other students in their class section.
- Discussions: This feature allows students and faculty member to create a discussion thread and reply to ones already created.
- Mail: Blackboard mail allows students and faculty member to send mail to one another. This feature supports mass emailing to students in a course.

2. Content

- Course content: This feature allows faculty member to post articles, assignments, videos etc.

- Calendar: Faculty member can use this function to post due dates for assignments and tests.
- Learning modules: This feature is often used for strictly online classes. It allows faculty member to post different lessons for students to access.
- Assessments: This tab allows faculty member to post quizzes and exams and allows students to access them via the internet.
- Assignments: This features allows assignments to be posted and students to submit assignments online.
- Grade Book: Faculty member may post grades on Blackboard for students to view.
- Media Library: Videos and other media may be posted under this function [8].

Also Blackboard as a virtual learning environment (VLE) was introduced in the Faculty of Health and Social Care (FHSC) in England in a local university in 2001. It is part of the major step in implementing the university's e-learning strategy [9] in joining the rest of the world in the relentless push of technology. In the FHSC, programs offered are either health or health-related studies and are commissioned by the Department of Health (DoH). Thus, the mode of educational delivery is, unsurprisingly, affected by the views the National Health Service (NHS) has of e-learning, in which e-learning is believed to be an emerging approach to life-long learning and flexible learning for health and social care education and practice (Department of Health [10]. For these reasons, e-learning is actively promoted in the faculty, and there is even a recent formation of an e-learning development group, aimed to facilitate the strategic development of e-learning/blended learning across the faculty.

Regarding the importance of the Blackboard, In the FHSC, most modules and programs tend to use a 'blended' learning approach. Such an approach which uses more than one mode of delivery [11] has existed as long as education exists [12]. However, with the increasing trend toward technologies for their great potential in solving problems, particularly in areas related to time and flexibility in a fast moving globalized society, teaching strategies which demand e-learning are increasingly dominating the 'blended approach' to learning. Although in this faculty, it is not uncommon to have a myriad of approaches of instructor-led classrooms and lectures, hands-on clinical laboratory sessions and workshops, clinical placements and coaching in the form of academic supervision e-learning is bound to be used at some stage. Bb in its purest form of e-learning with postings of documents and web pages and online communications is often encouraged to be used in the blend.

Educational delivery of a post qualification module for health care professionals at academic level 5 used for this discussion is an example which uses Blackboard in its blended approach at a simple level of a combination of face-to-face lectures, coaching, and VLE. The approach

may just be at the simplest level of blending offline and online learning—it has no difference to any other blended approach in that the focus was on the learning objectives [11].

In view of the constructivist theories based on the work of Bruner, Vygotsky and Feurestein, among others; learning is a building process, whereby learners construct their own meanings of current experiences from previous exposures [13]. The use of Bb in this module was to provide students the opportunity to build and construct knowledge on what was learnt in a face-to-face dimension. Underpinning the approach was the strategic purpose in embracing redundancy [14], in which the use of Blackboard was to allow students opportunities to receive the same classroom information, but in its elaborated forms from various sources in various formats spreading over a period of time.

In Saudi Arabia, the authority has called for a national plan to adopt information technology across the country. The plan recommends implementation of e-learning and distance learning and their prospective applications in higher education".

Notes that the Internet penetration rate in Saudi Arabia is 10.6% (average worldwide = 27.4%) and that user growth rate is 1.170% while the average worldwide is 222.5%.) [15].

Yet, despite the statistics that demonstrate the enrollment growth, the number of competent Internet users and the number of students with home access to a computer and the Internet the Saudi Arabian government has not made full use of distance learning throughout higher education. Distance education provides students with another learning option that could potentially allow them to continue their education while still contributing to the national economy while working.

Currently in Saudi Arabia, the use of distance education is budding. Yet, there is room for improvement and expansion, and there are three universities King Saud University, King Abdul-Aziz University, and King Faisal University, are all leading universities in Arab region. These three universities stated in different ways, all share the same mission in delivering distance learning to its students. The mission of the universities' distance learning programs is to utilized, integrate, and train students and faculty with the latest technology in distance learning.

As listed on the universities' websites for E-Learning and Distance Education, the e-learning systems that are made available to the students include a Blackboard/Web CT Learning Management System, virtual classroom synchronous system, class capturing/recording system, authoring tool and content management systems, and an online exam system [16].

Based on this huge growth and challenge facing e-learning systems using Blackboard as an online learning system among universal universities and specifically in

Saudi Arabia, it is very critical to identify the factors that are affecting the use of this system, where the purpose of this study is to survey the perceptions of faculty members at King Saud University (Riyadh), King Khaled University (Abha) and Taif University, to highlight the main difficulties that could be an obstacle to achieve the goal of e-learning by using the Blackboard system.

In other words the study evaluates the performance of faculty members at these universities to highlight the main challenges facing faculty member to achieve efficiently the aim of blending learning by using the Blackboard.

Nature and problem of the study

The focus of the present study was to recognize the perceptions of faculty members at King Saud University (Riyadh), King Khaled University (Abha) and Taif University by surveying the opinion of a sample of faculty members for undergraduate and graduate students involved in e-learning programs and trained to use the blackboard in education, College of Education.

It might seem difficult for some faculty members to learn new skills in technology to improve their educational performance by using e-learning tools and especially for those who don't hold a PhD degree in Educational Technology, and such new technology in learning will create a new educational environment and challenges.

Therefore, the problem of the present study was established in the following questions:

1. What are the perceptions of faculty members at King Saud University (Riyadh), King Khaled University (Abha) and Taif University in terms of the effectiveness of the Blackboard in e-learning?
2. What are the difficulties facing the faculty members at Taif University, College of Education to use the Blackboard?
3. Did the faculty members find the e-learning training programs offered by the university helpful to understand e-learning and Blackboard techniques?

Review of Related Literature

In the past two decades, there has been tremendous growth in the availability and feasibility of college and university courses taught partially or entirely online. University education is evolving by leaps and bounds to online learning, where students learn in invisible or virtual classrooms. With the advancement of technology and the Internet, the world has become a vast storehouse of information and learning is no longer limited by distance, location, or physical existence. One of the defining characteristics of online education is that it allows students access to learning without the constraints of time and location [17]. Unquestionably, there is an online learning boom occurring and this form of educational delivery has become a top priority for the 21st century higher education system [18].

Institutions of higher education have embraced the Internet as an important vehicle for delivering courses and

programs to a wide array of audiences. In the past decade, higher education has gone from a few schools offering online programs to the point where 63% of all institutions of higher learning were offering undergraduate courses online in 2005 and 65% were offering graduate courses [19]. Over the next decade, the growth of online students is expected to average around 40% per year [20].

In online learning environments, the educator acts as a consultant who maintains close monitoring, but does not interfere with student efforts to address the problems at hand. Students are expected to act with initiative and enthusiasm, reason effectively and creatively with an integrated, flexible, usable knowledge base and monitor and assess their own abilities to achieve desirable outcomes. Research over several decades has found strong evidence for the effectiveness of distance learning [21].

One key issue in e-learning is communication between participants, for which there are two basic types of technological solutions: Asynchronous and synchronous [22]. In the asynchronous approach, the interaction between parties does not require them to be engaged at the same point in time. In synchronous communications the interaction between participants requires simultaneous engagement of the participants.

However new technologies have the potential to change the way faculty member teach and learners learn [23]. They offer a highly interactive medium of learning that can be customized to meet the individual needs of students [3]. Blackboard as a learning management system is an advanced technology used in higher education, and it may add a virtual dimension to traditional campus-based study [24] and also facilitate hybrid or blended studies which combine online and on-campus components [25]. Therefore, it is important to understand how these technologies are being used and how they impact on users.

Looking at the design of blended learning, and according to the properties of professional knowledge about business management, a blended learning system was designed to integrate network leaning and face-to face learning to realize the revolution of teaching learning resources, method and schema, thus improving student's learning abilities.

The designing of blended learning system involved four parts and every part went through three research actions.

1. Planning: Firstly the interests of students are found through questionnaire, and then the learning initiatives are inspired through network leaning and classroom lecturing.

Finally, preview assignments should be announced a week before and students should proposed their own questions using network resources learning, the questions are collected to be lectured in the classroom.

2. Practicing: The content of the course is divided into three categories, points to be conscious of, key points and difficult points. Students finish their homework using Blackboard network resource and online discussion board

and submit them.

3. Recording: The teacher observes students' utilizing abilities of blended learning resource and the problem solving capabilities.

4. Summarizing: Faculty member review on students' submitted homework, students' knowledge expanding, problem solving abilities and learning initiative, and introspect the results.

Obstacles faced by faculty member using the blackboard may vary among universities depending on the training and Technology efficiency, and evaluation of blended learning involves in evaluation on classroom lecturing, virtual teaching and blended discussion. Every university has its own evaluation system for classroom lecturing.

However, it may be that instructors are more familiar with transmitting information and are less familiar with creating computer-based interactions such as synchronous or asynchronous discussions or creating quizzes with feedback for each answer [25] and may need time to develop different ways of working within technological systems.

The difficulty associated with learning how to use learning management systems such as Blackboard has been identified as a key limitation of these systems [26]. Faculty member do not have the motivation or time to become expert users of online systems thus limiting their use of innovative pedagogies. According to Christie and Garrote Jurado [27], the barriers to the use of innovations are understandable and faculty member need to be convinced of the value of learning management systems if they are to realise their potential.

Both academic staff and students may benefit from using Blackboard. Potential benefits include increased availability, quick feedback, improved two-way interactions, tracking, and building skills such as organisation, time management and communication [26]. In terms of availability, users can access Blackboard via the internet at anytime and anywhere [23], so students can view and download course materials and other information as well as submitting assignments online as soon as they are complete. Previous research [28] indicates that it is the increased availability that most appeals to students. While students may appreciate the convenience, students are generally less satisfied with online learning compared to traditional face-to-face learning [29].

Students cite reasons such as the lack of a learning atmosphere in Blackboard, reduced opportunities for contact or discussions with other students and faculty member, delayed feedback from instructors and a less efficient learning process with students required to dedicate more time to learning the content as the basis for their dissatisfaction [30,31]. In particular, when students have questions or concerns, lack of immediate clarification can slow down the learning process [32].

Further, Blackboard interactions may occur synchronously or asynchronously. Significantly, increased interactions with instructors and other learners provide opportunities for knowledge building as much of learning occurs within social contexts [30]. In fact, some research has indicated that passive online learning without participation produces poorer learning outcomes [33,34].

Blackboard features that facilitate interactions include announcements, discussions, virtual classroom, chat and email [26]. The announcements section on Blackboard homepages provides a simple, efficient way of relaying messages on to all students in the cohort without taking up valuable class time while the email facility provides students with the opportunity to communicate with instructors on an as-needed basis [35].

While the objective of many online learning initiatives may be to increase learning opportunities for spatially distant learners, the use of technology may lead to feelings of isolation [36]. However, the social interactions provided through the use of tools that are available in Blackboard may help to reduce the sense of isolation experienced by students who are geographically removed from the site of study. In particular, interaction with an instructor and a perceived "teaching presence" is an important factor in successful online learning [37,38].

Individual differences also play an important role in how students engage with online technologies. McLoughlin [39] highlights the need to provide culturally inclusive online environments that recognize the diversity in students' social and cultural backgrounds. It is important to look for methods and technologies to facilitate learning for all learners. Understanding the current ways in which these technologies are being used by learners and instructors may be the first important step in achieving this aim [40].

II. METHODS

A. subjects

The sample of the study consisted of (360) faculty member within the Colleges of Education at King Saud University (Riyadh) , King Khaled University (Abha) and Taif University who are involved in blended learning were randomly selected and invited to participate in a survey prepared by the researcher (See Appendix below) designed to obtain responses about teaching using the online learning management system: Blackboard.

Faculty member were advised that their involvement in the project was voluntary; they could withdraw from participation at any time.

B. Measurement

A questionnaire was developed to assess It aimed at examining and exploring the college of education faculty (members and instructors) perceptions regarding the use of Blackboard in teaching after review of the theoretical literature. The questionnaire consisted of (30) items. It was sent to a specialist in instructional technology to review

the items and to establish face validity for the questionnaire. Furthermore, it was piloted to examine the reliability coefficient using Cronbach’s Alpha which was found to be 0.80.

C. Data Analysis

The data from the questionnaire were analyzed by using SPSS V.17. Descriptive analysis and (T-Test) were used. The analyses were carried out at a significance level of ($\alpha \leq 0.05$).

III. METHODOLOGY

The current study is descriptive in nature. It aimed at examining and exploring the college of education faculty (members and instructors) perceptions regarding the use of

Blackboard in teaching or e-learning in terms of effectiveness, perceived advantages and disadvantages, helpfulness of training programs in using this technology, and the obstacles presented in the utilization of it.

IV. RESULTS

A. The results related to the first question

The first question of this study was as follows: “What are the perceptions of faculty members at King Saud University (Riyadh), King Khaled University (Abha) and Taif University in terms of the effectiveness of the Blackboard in e-learning?” For this question means and standard deviations were calculated as shown in Table I.

TABLE 1
MEANS AND THE STANDARD DEVIATIONS Faculty member’ Perceptions about the Blackboard

Perception	Strongly Agree	Agree	Don’t know	Disagree	Strongly Disagree	M	SD	Level of perception
Blackboard is easy to use	128	112	50	48	22	2.89	0.311	High
I want to learn more about Blackboard	125	133	42	39	21	2.79	0.428	High
I would recommend Blackboard to others	121	135	43	37	24	2.76	0.503	High
I try to learn all Blackboard features	102	156	12	58	32	2.73	0.480	High
Blackboard is the best e-learning system I ever used	86	107	135	25	7	2.72	0.503	High
Blackboard is an efficient system to interact with students	94	122	60	51	33	2.59	0.578	High
I prefer to use a different e-learning tool	37	42	90	125	66	2.40	0.824	High
Blackboard doesn’t make a difference in e-learning	28	35	77	113	107	1.73	0.499	Medium

Table I shows that (7) items of the (8) items received a high agreement level by the faculty member towards the Blackboard using and preferring , and the mean ranged between (2.40 – 2.89). However, the rest of the items receive an agreement level of medium and the means (1.73). The item “Blackboard is easy to use” was the highest with a mean of (2.89). However, the item

“Blackboard doesn’t make a difference in e-learning” was the lowest with a mean of (1.73).

B. The results related to the second question

The second question of this study was as follows: "What are the difficulties facing the faculty members at Taif University, College of Education to use the blackboard?"

TABLE 2
Instructors Rank

Faculty Rank	Number	(%)
Professor	35	9.8
Associate Professor	65	18
Assistant Professor	180	50
Instructor	80	22.2
Total	360	100%

TABLE 3
Overall Teaching Experience at these Universities

Over All Experience	Number	(%)
Less than 1 year	10	2.8
1 year or less than 2 years	34	9.4
2 years or less than 3 years	36	10
3 years or less than 4 years	66	18.3
4 years or less than 5 years	88	24.5
5 years or less than 10 years	52	14.5
More than 10 years	74	20.5
Total	360	100%

TABLE 4
Faculty member Skills in using Blackboard

	Strong	Intermediate	Low	None	Total
Faculty member	88	160	88	24	360

TABLE 5
Obstacles Facing Faculty member

Obstacle	Number	(%)
Technical Support	67	18.6
Technical Skills	75	20.8
Low Internet Connection	43	12
Knowledge/Training	72	20
Academic & Administrative Tasks	103	28.6
Total	360	100%

Table 5 shows that (28.6) of faculty member faced Academic & Administrative Tasks beside working in blackboard (BB) platform, however, (20.8%) faced technical skills problem. In addition, (20%) of faculty members faced knowledge/training, (18.6%) of the faculty members faced technical support problems and (12%) faced Low Internet Connection problems during handling with BB platform.

In General it seems that (31%) of the study sample is facing difficulties using the Blackboard system due to low background knowledge in technology (computer and software especially in producing electronic materials such as: recording lectures via Echo application, upload videos on YouTube channel, slide share, flicker ..etc.

C. The results related to the Third question

The third question of this study was as follows: "Did the faculty members find the e-learning training programs offered by the university helpful to understand e-learning and Blackboard techniques?"

Most faculty member in the three universities and especially at Taif University- for the new applicative of the BB platform- are in need for intensive Blackboard training in order to improve their knowledge about online educational systems.

However, About 72% are willing to learn and discover about the Blackboard features and this could be due to: Training & Orientation and Technical Skills.

V. DISCUSSION AND CONCLUSION

Based on questions and collected answers, it can be conclude that:

Most of faculty member in the study sample (about 67%) consider Blackboard system an easy educational online system to use. Faculty member who are facing problems with the Blackboard or they consider it as an inefficient system, the reason behind that could be the low of technical skills background and insufficient training. Most of Faculty member who are enjoying using Blackboard and prefer to use it are from King Saud University (Riyadh) and King Khaled University (Abha). Most faculty member in the study sample (about 72%) are willing to increase their knowledge about Blackboard and online systems. The rest of study sample (about 28%) is still hesitated to do that due to: a-Low technical skills Background. b- No time to follow- up. About (31%) of the study sample is facing difficulties using the Blackboard system due to low background knowledge in technology

(computer and software especially in producing electronic materials such as: recording lectures via Echo application, upload videos on YouTube channel, slide share, flicer..etc

In addition to skills and training about (12%) of the sample are having problem with the internet connection (or to get connected to the blackboard), where (50%) of those are at Taif University. About (61%) of the study sample has a considerable perspective that Blackboard is making a difference in e-learning where most of these faculty member have good knowledge about using technology and educational systems. About (18%) considered that Blackboard doesn't make any difference and this could be due to the low training and technological background level dealing with technology in education. About (39%) don't know/agree that Blackboard doesn't make any difference in e-learning, and this could be due to training and orientation.

VI. RECOMMENDATIONS

Based on the findings and results, researcher may recommend the following:

1. Training and Education about the Blackboard system should be increased and efficient among these universities and especially Taif University.
2. Motivate to use the Blackboard in e-learning as a world wide system.
3. Improve the internet connection (University network) in order to encourage using blackboard system and develop technical skills.
4. Increase the technical support and make it more efficient: Fast communications and skilled maintenance, and to fix any issue that may prevent faculty member from using the Blackboard features.
5. Revise the academic duties and tasks assigned to universities 'faculty member so they can manage to learn Blackboard system and finish other tasks.
6. Consider the blackboard system as the main e-learning system and increase the skills level of faculty member by providing the appropriate training and orientation.
7. Creating faculty member groups among colleges to increase coordination and to share perspectives about Blackboard features.

Appendix – Blackboard Survey

We value your opinions regarding your use of Blackboard. In relation to units for which you have responsibility, please respond to the following items.

1. Which Blackboard feature do you use?

TABLE 6

Feature	Use Regularly	Use Sometimes	Use Rarely	Don't use	Didn't know Feature exists
Announcements from lectures	○	○	○	○	○
Discussion Forum	○	○	○	○	○
Chat rooms	○	○	○	○	○
Classroom Material Database	○	○	○	○	○
Blogs	○	○	○	○	○
Audio streamed lectures	○	○	○	○	○
Video streamed Lectures	○	○	○	○	○
Learning resources	○	○	○	○	○
Group work area	○	○	○	○	○
Links to websites	○	○	○	○	○
Quizzes	○	○	○	○	○
Assessment information	○	○	○	○	○
Examples of assignments	○	○	○	○	○
Examples of exams	○	○	○	○	○
Email contact with student	○	○	○	○	○
Feedback from students	○	○	○	○	○
Staff/Administration contact	○	○	○	○	○

2. Best feature of the Blackboard

Most faculty member like the following 5 features:

- a. Group work area
- b. Links to websites
- c. Feedback from students
- d. Chat rooms
- e. Discussion Forum

3. Worst feature of the blackboard

Researcher has noted that faculty member had different perspectives about the worst feature of the blackboard, where the majority has stated that email contact with students is considered as an “issue” where students take advantage of this feature and keep sending e-mails despite lectures’ issues could have been discussed on the forum or chat room.

However, there was no major bad feature as much as it was a matter of technical skills dealing with the Blackboard, where sometimes Blackboard user (Teacher) cannot deal with technical difficulties facing him/her; e.g.: Blackboard system is not responding – Slowness or freeze with Audio/Video ... etc

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