Attitudes of Faculty Staff towards Using the Blackboard E-Learning Management System in Teaching the Courses

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Abstract

This study aimed at identifying the faculty staff abilities for using the Blackboard E-Learning Management System (LMS) in teaching the courses. It also aimed at identifying their attitudes towards it and the differences in attitudes according to academic degree (professor, associate professor, assistant professor, assistant lecturer and demonstrator), experience in using the computer (one, two, five, and more than five -years -experience), and the level of utilizing e-learning in teaching the courses (complete, blended and supportive e-learning). The sample of the study consisted of female faculty staff (n= 60) teaching at the Faculty of Arts and the Faculty of Education, King Khalid University. Their ages ranged from 23 to 55 from different nationalities and specializations. Frequencies, percentages and good fit (Chi-square) in addition to relative weight for each statement in addition to importance of each statement were estimated to assess the agreement and disagreement in attitudes among the members of the sample concerning their responses to the items of the scale. Analysis of variance was calculated to identify the differences in attitudes towards using the Blackboard LMS according to academic degree, experience in using the computer and the level of utilizing e-learning in teaching the courses. The results of the study revealed that the faculty staff utilized most of the techniques of using the Blackboard LMS in teaching the courses. In addition, they had most of the teaching skills using the Blackboard LMS. They had no prior experience in using the Blackboard LMS except for participating as a learner in the virtual classroom training sessions. Concerning faculty staff attitudes towards using the

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Blackboard LMS in teaching the courses, there were no statistical significant differences in attitudes due to academic degree (professor, associate professor, assistant professor, assistant lecturer and demonstrator). Besides, there were no statistical significant differences due to experience in using the computer (one, two, five, and more than five -years -experience), or the level of utilizing e-learning in teaching the courses (complete e-learning, blended e-learning and supportive e-learning).

Introduction

Science brought about new technology in communication and information which had the greatest effect in scientific application of the theories in the educational system to cope with the development in communication and speed of information transfer. Learning Management Systems (LMSs) through the internet appeared as a result of introducing educational courses and the increased enrollment in e- and distant learning.

LMSs allow introducing learner-centered learning through the interactive learning environments anywhere and anytime using the internet and the digital technology. Electronic learning technology services can change the learner from a passive to an active one who participates in the learning process through the internet and controls the learning resources (Olatokun and Mala, 2006, 127). LMSs are an integrative system responsible for managing the electronic educational process through the internet. This includes admission and registration, enrollment in courses and managing them, assignments, monitoring students, supervising synchronous and asynchronous communication tools, test management, and issuing final certificates (Salem, 2004, 301-302). This is because they are software applications that allow automatic registration, management, monitoring of e-learning courses and training programs, scoring tests, logging in a course through the interaction interface, synchronous and asynchronous communication through forums, discussion boards, blogs, e-mails, RSS, uploading and downloading files, participating in building the content and the cooperative projects using wikis, teacher and peer assessment, grouping and

organizing students, scoring and participating in questionnaires, tests or assessments, etc…

LMSs are considered a web-based technology used in planning, implementing and evaluating the learning processes through a way in which the teacher presents the content and monitors the students' participation and evaluates their performance. At the same time, they enable the learner to use interactive tools such as discussion boards, video- conferencing, forums and distant learning groups. These systems are evaluated and monitored according to Sharable Content Object Reference Model (SCORM) standards.

There are many electronic LMSs and the higher education institutes increased the introduction of open-source LMSs such as Moodle and commercial ones such as the Blackboard because of their advantages which are reflected on the quality of the educational performance at these institutions.

Electronic LMSs may be rejected by some faculty staff due to the following reasons (Rouse, 2015:1):

Physical constraints which include the infrastructure that may not support the e-learning processes, the students' lack of computers and internet access, high cost of accessing the internet and absence of online technical supports for the faculty staff and the students before and while using the system.

Personal constraints which include faculty staff and the students' perception of technology, faculty staff's feeling of danger that someone who is knowledgeable about technology is robbing him of his job, society's hesitation to use and utilize e-learning, considering e-learning a luxury and fun not learning, lack of awareness among heads of departments at the universities concerning the importance of electronic LMSs, refusal of heads of departments at universities to activate LMSs and lack of the faculty staff's perception of e-learning and considering it a fashion.

Administrative constraints which include lack of support through practical training on using LMSs and transferring faculty staff to other faculties at the academic departments.

The Blackboard LMS allows the educational institutions to introduce electronic courses on the internet as a complement to the traditional learning (Coetzee, 2013: 1) and allows the universities to add electronic educational resources on the internet such as power-point files, videos, sound, animation and other applications that can be added to support the courses, enhances teaching and increases the efficiency of learning. It also introduces a list of the available courses for study to the students, information about each course, a list of lectures, asynchronous communication through RSS and participation in forums among the students themselves or between them and the teacher, whatever the level of utilizing e-learning in the course they study is. The system makes electronic resources for supporting what students study available in addition to an item bank for training, and evaluation using performance records, and open and limited discussions. All of this needs technological preparation for the faculty staff as well as students. It requires the students' mastery of the skills of using the internet, using the internet explorer, writing and file managing skills. It does not require mastery of any programming language or HTML (Coetzee, 2013: 1).

E-learning and ELMSs may not receive enough concern from some faculty staff and students. University administrations may face challenges such as the absence of a positive attitude towards using e-learning or accepting the LMSs that make them use them slightly or not use them. With the increasing of information and the necessity of introducing it through the e-learning environment, it is a must to identify the factors that affect the acceptance of this technology since most universities continue to introduce the courses through electronic, blended or supportive learning system. In spite of the growth of e-learning, there is a need to evaluate it at faculties and universities since e-

learning developers need to understand faculty staff's and students' attitudes in order to enhance teaching and learning, make using e-learning easy, and help designing systems that attract faculty staff to the learning environment. The traditional courses may use LMSs for enriching learning. Recently, the educational institutions spend millions of dollars in buildings and educational constructions and invest some of this money in developing the different courses to be delivered electronically through these systems at schools in which some students cannot attend regularly. They introduce them alternative courses specially developed through LMSs where the best teachers prepare and deliver them at distance through the internet (Azmy, 2008:271).

The Saudi universities introduce a step in developing the area of LMSs, open-source or closed, in collaboration with international experts to avoid the common problems in these systems. E-learning and distant learning centers started to train faculty staff at the Saudi Universities on using and activating it.

King Khalid University is at the south of Kingdom of Saudi Arabia. It is one of the universities that use e-learning since 2003 at three levels: supportive, blended and complete. The number of the faculty staff using the system is 1593 and the number of courses using e-learning is 3139 out of 7152 (43.89%). There are 48 complete electronic courses and 341 blended (King Khalid University, 2013). These statistics reflect the exerted effort by those responsible for e-learning but they do not show the extent of interaction with the LMS and to what extent it can be considered an active system since a message indicating the faculty staff's uploading or creation of a part of the course on the system is considered an indicator and clear evidence of the system's activation. Some faculty staff are still hesitant to use e-learning. Some of them have a negative attitude towards using the Blackboard LMS and some prefer face-to-face learning. The researcher conducted interviews with the study sample during administering the instruments of the study in which the Islamic Studies faculty staff assured her their conviction of the necessity

of face-to-face teaching especially when the matter is related to doctrine to found it among the students. This makes them not use the system in their teaching. Based on the aforementioned information, it is clear that the number of teaching opportunities introduced by higher education institutes at Kingdom of Saudi Arabia is increasing as well as the opportunities to use the LMSs. This calls for controlling and monitoring them through the users, faculty staff as well as students. Accepting the LMS is affected by different factors among them is the faculty staff's attitudes towards using the system. This study aims at identifying the faculty staff's attitudes towards using the Blackboard LMS in teaching.

Problem of the study

In spite of the technical support introduced by the e-learning and distant learning systems to the faculty staff at the universities to activate LMSs, it was noticed that teaching using the Blackboard LMS is not activated by most faculty staff at King Khalid University although this university is a leading one in using the system. Forty-eight courses were introduced electronically, 341 were blended and 1876 electronic tests were conducted. The average of the students registering in the system is 8998 and the number of the course pages in the system is 254035. The deanship of e-learning was established in 1426 H. (King Khalid University, 2013).

This urged the researcher to attempt identifying the faculty staff's abilities for dealing with the system, their previous experiences and teaching skills. This is because, perhaps, lack of abilities is the reason of the reluctance among some of them to use the Blackboard LMS, which in turn would affect their attitudes towards using it. Some courses were not linked to the system due to the arrival of new faculty staff. Some Islamic Studies faculty staff assured the necessity of face-to-face communication with the students especially in the formation of doctrine. In addition, some studies indicated the need of faculty staff to be trained on using the system especially content management, file sharing, forums and item banks regardless of

the kind of the faculty (Hussein, 2011). Karawany (2010) recommended the necessity of supporting the e-learning environment, paying attention to the infrastructure of the internet services, conducting more research on distant learning and supporting the efforts of creativity to help professional development among the faculty staff (Furco and Moely, 2012). Thus, this study aims at answering the following research questions:

1. What are the current abilities of the faculty staff concerning using the Blackboard LMS in teaching courses?
2. What are the faculty staff's attitudes towards using the Blackboard LMS in teaching courses?
3. Do faculty staff's attitudes differ according to academic degree (professor – associate professor – assistant professor – assistant lecturer – demonstrator)?
4. Do faculty staff's attitudes differ according to experience in using the computer (one, two, five years and more than five years)?
5. Do faculty staff's attitudes differ according to the level of utilizing e-learning (complete, blended or supportive e-learning)?

Method of the study

Due to the nature of the study, the researcher used the descriptive method for studying the abilities of the faculty staff in using the Blackboard LMS in teaching courses. The experimental method was used for studying the faculty staff's attitudes towards using the Blackboard LMS in teaching courses.

Aims of the study

This study aimed at:

1. Identifying the current abilities of the faculty staff concerning using the Blackboard LMS in teaching courses.
2. Identifying the faculty staff's attitudes towards using the Blackboard LMS.
3. Finding out if there are differences in faculty staff's attitudes according to academic degree (professor –

associate professor – assistant professor –assistant lecturer – demonstrator).

4. Finding out if there are differences in faculty staff's attitudes according to experience in using the computer (one, two, five years and more than five years).
5. Finding out if there are differences in faculty staff's attitudes according to the level of utilizing e-learning (complete, blended or supportive e-learning).

Importance of the study

The importance of this study lies in:

1. Urging the faculty staff to use the LMSs in teaching courses.
2. Enhancing the faculty staff's performance in teaching the courses using LMSs.
3. Calling the attention of those responsible for e-training to include LMSs in their training sessions.

Hypotheses of the study

This study sought verifying the validity of the following hypotheses:

1. There are no statistical significant differences at the 0.05 level between the mean scores of the faculty staff on the scale of attitudes towards using the Blackboard LMS in teaching the courses due to academic degree (professor – associate professor – assistant professor – assistant lecturer – demonstrator).
2. There are no statistical significant differences at the 0.05 level between the mean scores of the faculty staff on the scale of attitudes towards using the Blackboard LMS in teaching the courses due to experience in using the computer (one, two, five years and more than five years).
3. There are no statistical significant differences at the 0.05 level between the mean scores of the faculty staff on the scale of attitudes towards using the Blackboard LMS in teaching the courses due to level of utilizing e-learning (complete, blended and supportive e-learning).

Delimitations of the study

Topic delimitation: This study is limited to identifying the current abilities of the faculty staff in using the Blackboard LMS in teaching courses and their attitudes towards it.

Institutional delimitation: King Khalid University, faculties of Arts and Education in Abha.

Place delimitation: This study was conducted on the faculty staff teaching at the Faculty of Arts and the Faculty of Education at Abha (departments of Curriculum and Methods of Teaching, Kindergarten, Psychology, the Arabic Language, the English Language, Islamic Studies, Geography and History).

Time delimitation: The study was conducted during the academic year 2012/2013.

Human delimitation: The faculty staff at the faculties of Education and Arts, King Khalid University, Abha from different nationalities (Egyptian, Saudi, Yemeni, Syrian, Jordanian and Sudanese) in different specializations (Kindergarten, the English Language, Computer, Geography, Psychology, English Literature, Fundamentals of Education, History, Natural Geography, Management and Educational Planning, Guidance and Counseling, Educational Technology, the Arabic Language, Curricula and Methods of Teaching English, Social Studies, Science and Arabic, and Islamic Studies (Interpretation and Quraan Sciences, Hadith and its Sciences, Jurisprudence and its Fundamentals, Doctrine and Current Ideologies).

Terms of the study

Ability

Ability is a hypothetical construction we derive or deduce from measurable performance techniques. It is a phenomenon whose existence is deduced from the directly and indirectly observable facts (Abou Hatab, 1990: 113). The researcher defines it operationally as the ability of performing a specific activity or a group of performances that a person reaches

through training in case of availability of the external needed conditions.

Learning Management System

Learning Management System (LMS) is a tool for introducing information and learning resources for the students at distance along the 24 hours (Trayek & Hassan, 2013) through tools that allow them to interact with their peers such as e-mail, the announcement board, discussion board, etc. It introduces the content in different file formats, and samples of tests. It saves their scores and allows its retrieval at any time.

The Blackboard Learning Management System

It is defined by the formal site for the Blackboard Company (WWW.Blackboard.com) as one of the software applications used for supporting the virtual learning environments to integrate with traditional teaching and the distant teaching programs to achieve the learning aims, communication and assessment through the potentials of the course management, managing the discussion board, composing content, building tests, and supporting cooperative learning and teaching using virtual classrooms, introducing cooperative projects and assessment through tests and questionnaires … etc.

The researcher defines it operationally as an LMS that makes available information about the course, the electronic content using text, sound, picture, animation and images that suit the students' cognitive styles, cooperative learning through the discussion board, assessment through assignments, tests and questionnaires, and monitoring through the students' grading center.

Attitudes towards the Blackboard LMS

They are the person's relatively stable general feeling that identifies his/ her responses towards a specific subject by acceptance, refusal, supporting or rejecting (Zaitoon, 2004:401). Operationally defined, they are the sum of the faculty staff's responses by accepting or rejecting the Blackboard LMS in

teaching their courses, which is measured by a scale of attitude towards using the Blackboard LMS in teaching the courses.

Method

Designing the instruments of the study

Questionnaire of the Faculty Staff Abilities in using the Blackboard LMS in Teaching the Courses

To answer the first question of the study "What are the current abilities of the faculty staff concerning using the Blackboard LMS in teaching?", a questionnaire was designed for this purpose. The questionnaire included general information presented in six items to get descriptive information about the sample. This included name (optional), academic specialization, years of experience in teaching, academic degree (professor, associate professor, assistant professor, assistant lecturer, demonstrator), experience in using the computer (one, two, five years and more than five years), the level of utilizing e-learning in teaching (complete, blended, supportive e-learning).

The first section of the questionnaire "Techniques of dealing with the Blackboard LMS" consisted of 14 items. The second part "Teaching skills using the Blackboard LMS" consisted of 12 items. The third section "Previous experience in using the Blackboard LMS" included eight items. The participants had to choose "yes", "sometimes" or "no" for each item.

The questionnaire was designed in the light of the interviews with the faculty staff at the Faculty of Arts and the Faculty of Education, King Khalid University and making use of the Arabic and English references, previous studies and research papers in the area of e-learning and the Blackboard LMS. The researcher took into consideration that the items of the questionnaire, in their first draft, be clear, specific and that each represents only one objective.

Identifying the dimensions of the questionnaire

The items were classified into three dimensions presented in the following table.

Table 1: The distribution of the items of the Questionnaire of the Faculty Staff Abilities in using the Blackboard LMS in Teaching the Courses

No.	Main dimension	Number of items
1	Techniques of using the Blackboard LMS	14
2	Skills of teaching using the Blackboard LMS	12
3	Previous experience in using LMS	8

The questionnaire was submitted to jury members for face validity of the items. Their agreement was 100% on 97% of the items which means a high percentage of agreement on the questionnaire, in general. The phrasing of some items was modified in the light of their opinion.

Scoring the questionnaire

The questionnaire was scored on a scale from 3 to 1 according to the faculty staff's response. The following table shows the boundaries of the questionnaire's dimensions.

Table 2: The boundaries of the dimensions of Questionnaire of the Faculty Staff Abilities in Using the Blackboard LMS in Teaching the Courses

Dimension	Number of items	Weight	Boundaries	Percentage
Yes	34	3	102	199
Sometimes		2	68	66
No		1	34	33

It is clear from table 2 that 102 , which is the number of items multiplied by the highest response which is "3", was considered the highest score of using the Blackboard LMS while ≥ 68 (i.e. 60% of the total score) was considered the separating score between the existence of the ability among the faculty staff to use the Blackboard LMS.

Standardization of the questionnaire

Reliability of the questionnaire

To check the reliability of the questionnaire, SPSS was used to identify the internal consistence of the dimensions with each other as explained in the following table.

Table 3: The values of alpha coefficients for the dimensions of the Questionnaire of the Faculty Staff Abilities in Using the Blackboard LMS in Teaching the Courses

Dimensions of the questionnaire	Number of items	Alpha coefficient
Techniques of dealing with the Blackboard LMS	14	0.0883
Teaching skills of using the Blackboard LMS	12	0.892
Previous experience in using the LMS	8	0.743
Total "using the Blackboard LMS in teaching the courses"	34	0.882

Table 3 shows that alpha Cronback for the first dimension "Techniques of dealing with the Blackboard LMS" was 0.883, for the second "Teaching skills of using the Blackboard LMS" was 0.892, the third "Previous experience in using the LMS" was 0.743 and the questionnaire as a whole "Using the Blackboard LMS in teaching the courses" was 0.882 which are high values. This indicates reliability of the questionnaire and that it is reliable and usable in scientific research.

Duration of the questionnaire

In the light of the pilot study of the questionnaire, the time spent by the faculty staff answering all of the questionnaire items was estimated as 13 minutes.

Validity of the questionnaire

The questionnaire in its initial form was submitted to a panel of jury members specialized in Educational Technology, Curricula and Methods of Teaching and Fundamentals of Education at King Khalid University for face and content validity. They were asked to judge comprehensiveness of the questionnaire, phrasing of the different statements and appropriateness of the statements to the aim of the study. They also had the freedom to add, modify or delete whatever they see appropriate for validating the questionnaire. The statements approved by 75% of the panel of jurors were used; other statements were modified in the light of the jury members' opinions. The final version of the questionnaire included 34 items. The researcher used internal consistency by estimating the correlation coefficient between the item and the total score of

the dimension it belongs to. This reached 0.882 at the 0.01 level. In addition, the correlation coefficient between the total score of the dimension and the total score of the questionnaire after taking out the score of the dimension concerned (internal consistency of the dimension) as indicated in the following table.

Table 4: Coefficient of the internal consistency validity for the "Scale of the Faculty Staff Attitudes towards Using the Blackboard LMS in Teaching the Courses"

Item number	Correlation coefficient	Item number	Correlation coefficient
1 first	0.440 **	18	0.471 **
2	0.450 **	19	0.535 **
3	0.230	20	0.347 **
4	0.446 **	21	0.465 **
5	0.362	22	0.699 **
6	0.055	23 third	0.380 **
7	0.326 *	24	0.296 *
8	0.445 **	25	0.311 **
9	0.488 **	26	0.336 **
10	0.245	27	0.516 **
11	0.459 **	28	0.314 **
12	0.396 **	29	0.214
13	0.272 *	30	0.039
14	0.592 **	31	0.309 *
15 second	0.476 **	32	0.191
16	0.617 **	33	0.380 **
17	0.276 *	34	0.515 **

** Significant at 0.01 * Significant at 0.05

Since validity of the questionnaire means that it measures what it is supposed to measure, internal validity of the questionnaire was estimated as indicated in the previous table.

Administration of the questionnaire

The questionnaire was administered during the second term of the academic year 2012/ 2013 to a random sample of the faculty staff at the Faculty of Education and that of Arts, King Khalid University.

Scale of Faculty Staff's Attitude towards Using the Blackboard LMS in Teaching the Courses

To answer the second question of the study concerning the attitudes of the faculty staff towards using the Blackboard LMS in

teaching the courses, a scale was prepared through the following steps:

Aim of the scale: The scale aims at assessing the attitudes of faculty staff towards using the Blackboard LMS in teaching the courses.

Sources of preparing the scale: The scale was prepared in the light of some previous studies and references which dealt with how to design scales of attitudes towards e-learning.

Designing the scale: The scale included, in its first form, 32 items. The following conditions were taken into consideration when designing the scale:

1. The items should have clear and understandable meaning.
2. The number of negative and positive statements should be balanced as possible.
3. They should not include complex statements that include more than one meaning so that they do not confuse the reader.

Identifying the dimensions of the scale: The items were classified into dimensions, each of which includes statements that deal with it aiming at diagnosing the aspects of acceptance or rejection among the faculty staff, the population of the study, or identifying them. The following table shows the dimensions and the items they include.

Table 5: The distribution of the items of the "Scale of the Faculty Staff Attitudes towards Using the Blackboard LMS in Teaching the Courses"

No.	Main dimension	Positive statements	Negative statements	Total No. of statements
1	Attitude towards trust in the Blackboard LMS	4	3	7
2	Attitude towards anxiety in using the Blackboard LMS	2	3	5
3	Attitude towards using the Blackboard LMS in teaching	4	3	7
4	Attitude towards the importance of using the Blackboard LMS	6	7	13

The scale was submitted to a panel of jury members to get their opinion. The percentage of their agreement on 97% of the items was 100%. This means a high agreement on the scale, in general. The phrasing of some statements was modified according to the panel of jury members' opinion.

Scoring the scale: The responses ranged from 5 to 1 for the positive statements and from 1 to 5 for the negative ones. The following explains the range of the negative, neutral or positive values of the faculty staff's attitudes towards using the Blackboard LMS in teaching the courses.

Table 6: The range of the negative, neutral or positive values of the faculty staff's attitudes towards using the Blackboard LMS in teaching the courses

Borders	No. of items	Weight	Range	Percentage
Maximum value for positivity	32	5	160	100
Minimum value for positivity		4	128	80
Not sure (neutral)		3	96	60
Minimum value for negativity		2	64	40
Maximum value for negativity		1	32	20

Table 6 shows that the score 160, i.e. the number of questions multiplied by the maximum response which is five represents the highest positive attitude. The score ≥96 , i.e. 60% of the total score, is the dividing score between the negative and positive attitudes of the faculty staff, i.e. if the faculty staff's score was higher than 96, he would be considered to have a positive attitude towards using the Blackboard LMS in teaching the courses. Analyzing the sample's responses to the scale, a positive attitude towards using the Blackboard LMS in teaching the courses was found among 55 faculty staff out of 60. However, five had a negative attitude towards using the Blackboard LMS in teaching the courses.

Standardization of the study instruments

Psychometric coefficients of the scale

Reliability of the scale: Reliability of the scale was estimated using Alpha Kronback formula as it is one of the best methods of estimating reliability coefficient according to the nature and characteristics of the scale. Alpha Kronback coefficient reached 0.979 which makes the scale acceptable and applicable.

Table 7: Alpha Kronback coefficients for the dimensions of the scale of faculty staff's attitudes towards using the Blackboard LMS in teaching the courses

Dimension No.	No. of items	Alpha Kronback
First: Attitude towards trust in the Blackboard LMS	7	0.959
Second: Attitude towards anxiety of using the Blackboard LMS	5	0.690
Third: Attitude towards using the Blackboard LMS in teaching	7	0.687
Fourth: Attitude towards the importance of using the Blackboard LMS	13	0.900

Duration of the scale

In the light of the results of piloting the scale, the suitable time for responding to the scale was estimated by calculating the average of the time the faculty staff spent responding to all the items. This did not exceed 15 minutes.

Validity of the scale and its reliability

The scale in its first form consisted of 35 items. A group of the faculty staff working at the Faculty of Education, King Khalid University, was selected and was asked to judge the validity of each item of the scale of faculty staff's attitudes towards using the Blackboard LMS in teaching the courses. They were asked to judge whether each item belongs to the dimension under which it was classified. The items approved by 75% of the panel of jurors were considered suitable for measuring attitudes. Other items were modified in the light of the panel of jurors' opinions. The final version of the scale included 32 items. The researcher used internal consistency coefficients for assessing validity of the

scale of faculty staff's attitude towards using the Blackboard LMS in teaching the courses as presented in table 8.

Table8: Internal consistency coefficient for the scale of faculty staff's attitude towards using the Blackboard LMS in teaching the courses

Item No.	Correlation coefficient	Item No.	Correlation coefficient
First: 1	0.136	17	0.345
2	0.075	18	0.338
3	1.000	19	0.200
4	1.000	20 Fourth	0.816 **
5	0.214	21	0.583
6	0.364	22	0.583
7	0.841 **	23	0.102
8 Second	0.553	24	0.612 *
9	0.603	25	0.408
10	0.273	26	0.704 *
11	0.477	27	0.081
12	0.095	28	0.112
13 Third	0.064	29	0.416 **
14	0.134	30	0.688 **
15	0.218	31	1.000
16	0.535	32	0.151

** Significant at 0.01 * Significant at 0.05

Since validity of the scale means that it measures what it is supposed to measure, internal validity was calculated as indicated in the previous table.

Administering the study instruments to the population of the study

The population of the study consisted of 60 female faculty staff whose age ranged from 25 to 55. They were of different nationalities (Egyptian – Saudi - Yemini – Syrian – Jordanian – Sudanese) and different specializations (Kindergarten – the English Language – Computer – Geography – Psychology – English Literature – Fundamentals of Education – History – Natural Geography – Management and Educational Planning – Counseling and Guidance – Educational technology – the Arabic Language – Methods of Teaching English, Social studies, Science and Arabic – Islamic Studies (interpretation and Al-Quran Sciences – Hadith and its Sciences – Jurisprudence – Doctrine and

Current Ideologies – Jurisprudence and its Bases). The following table shows the distribution of the faculty staff according to their academic degree.

Table 9: Distribution of the sample according to academic degree

Academic degree	demonstrator	Assistant lecturer	Assistant professor	Associate professor	Professor[2]	Total
No.	11	3	37	9	0	60
%	18.3 %	5%	61.7 %	15%	0	100%

It is clear from table 9 that the highest ratio of the faculty staff participating in the study was assistant professors (61.7 %), followed by the demonstrator (18.3%), associate professors (15%), and finally assistant lecturers (5%).

Table 10: Distribution of the sample according to experience in using the computer

Experience in using the computer	0ne year	Two years	Five years	More than five years	Total
No.	8	13	7	32	60
%	13.3%	21.7%	11.7%	53.35%	100%

Table 10 shows that the highest ration of faculty staff participating in the study (53.3%) had more than five years of experience in using the computer, followed by those with two years of experience (21.7%), five years (11.7%) and finally those with one year experience (13.3%). This indicates that the participants of the study were highly experienced in using the computer.

Table 11: Distribution of the sample according to the level of utilizing e-learning in teaching the courses

Level of utilizing e-learning	Doesn't use e-learning (the traditional method)	Complete e-learning	Blended learning	Supportive e-learning	Utilizes the complete, blended and supportive)	Total
No.	6	4	6	33	11	60
%	105	6.75	105	55%	18.3%	100%

[2] There were no professors in the faculty.

Table 11 shows that the highest ration of the level of utilizing e-learning in teaching the courses was for the faculty staff who used the supportive e-learning (55%) followed by those who used the supportive, blended and complete (18.3%), and those who used blended learning (10%) and who did not use e-learning at all -the traditional method- (10%) and finally those who used complete e-learning in teaching the courses (6.7%).

Statistical treatment

The researcher used frequencies, percentages, Chi-square (X^2) in addition to relative weight for each statement and estimating its importance, in order to show the similarities and differences in the sample's responses on the items of the scale of the faculty staff's abilities in using the Blackboard LMS in teaching the courses. Besides, One Way ANOVA was used to identify the differences in attitudes among the faculty staff according to academic degree, experience in using the computer and level of utilizing e-learning.

Previous studies

Many studies that dealt with attitudes towards using the LMSs in teaching the courses were conducted. The following is some of them arranged chronologically.

Trayek and Hassan (2013) aimed at identifying the students' attitudes towards using an LMS and its importance, effectiveness and ease of use. It also aimed at finding out the differences in the students' attitudes towards using the LMS in distant learning and in full time learning. The study recommended that the universities continue in using the LMS because it is useful for all the students. It suggested updating the LMS in a way to suit teaching the gifted students.

Hussein (2011) aimed at investigating the Saudi faculty staff towards using Jusur LMS by electronically administering a questionnaire to a sample of 90 faculty staff at some Saudi universities. The questionnaire was distributed through e-mails. The results revealed that the faculty staff at the Saudi universities had positive attitudes towards using Jusur LMS in

spite of not adequately activating it. The participants expressed their need for training on using the system specially content of learning management, file sharing, forums and item banks. The results also revealed the absence of differences in attitudes towards using the system among the faculty staff due to type of faculty (humanistic, scientific or health).

Alkahtany (2010) aimed at identifying the opinions of the faculty staff concerning using virtual classrooms as one of the components of the Blackboard LMS in the distant learning program. It also aimed at investigating the difficulties that hinder using the virtual classrooms in the distant learning program, and identifying the differences among the members of the sample due to type of faculty, years of service, and knowledge of the computer and the internet). A questionnaire that consisted of three dimensions was prepared. The first dimension dealt with the opinion of the faculty staff concerning using virtual classrooms, the second dealt with the importance of using the virtual classrooms and the third the difficulties of using virtual classrooms. The sample consisted of 120 faculty staff member. The results showed the absence of statistical differences concerning using the virtual classrooms in distant learning due to experience in using the computer and the internet.

Farouk's (2010) study aimed at measuring the faculty staff's and students' attitudes towards using e-learning in teaching the Social Studies' course at Alfayum University. The results of the study revealed that the students were more positive towards using e-learning than the faculty staff. However, there were no differences in attitudes towards e-learning due to the academic department, the educational level or level of mastering the computer.

Bin Douhy (2010) aimed at investigating the teachers' and students' attitudes towards using e-learning in teaching Science. The sample consisted of 82 Physics teachers and 811 students distributed to five groups at three secondary schools in Alkarak Governorate. Four groups of them learnt using the internet, CDs, the internet and CDs, and the teacher with the projector. The fifth

group, the control group, learnt using the traditional method. A scale of attitudes towards e-learning, for teachers and students, was administered. The results indicated positive attitudes towards using e-learning among the teachers and negative ones among the students.

Alkarawany (2010) investigated and analyzed the attitudes of the Mathematics and Computer students at Al-Quds Open University, Selfeit Educational Directorate, towards using e-learning with all its different types, in teaching Mathematics. The questionnaire was administered to a sample of 50 students specialized in Mathematics and Computer during the first term of the academic year 2009/ 2010. The results showed that the students' attitudes towards e-learning were poor since the total response reached 95.58%. In addition, the Mathematics' students' attitudes towards using the different types of e-learning were more positive and stronger than the Computer students. However, there were no differences attributed to gender.

Lal (2009) conducted a study to find out the attitudes towards teaching among the secondary schools' students in the light of the academic specialization, experience in the field of work, and attending symposiums in the area of technology variables. The questionnaire of attitude towards e-learning was administered to the sample which included 462 secondary schools' students in Jeddah. The results revealed that the attitudes of the teachers with scientific academic specialization, experience lower than five years and attendance of symposia in the area of technology had more positive attitudes towards e-teaching.

The aim of Mohammad and Almatary (2009) was twofold: analyzing the attitudes towards e-learning applications among the graduate students at the Faculty of Science in Hashemite University, and identifying the effect of GPA and experience in e-courses. The sample of the study consisted of 70 randomly selected M.A. students at the Faculty of Educational Sciences. The study revealed positive attitudes among the students but there

were no statistical significant differences in the sample's attitudes due to GPA or experience in e-courses.

Mohammed (2007) evaluated the use of the internet in scientific research among faculty staff at the Hashemite University. She also aimed at finding out the effect of academic degree, gender and experience in teaching on attitudes. The sample of the study consisted of 161 randomly selected faculty staff. A questionnaire including three dimensions: percentage of use, its degree and extent of its diversity was used. The results revealed a high percentage use and a moderate degree of use. Besides, there were significant statistical differences for the degree of use according to the academic degree and experience in teaching variables. Yet, there were no statistical significant differences attributed to gender.

Alkhashab (2007) investigated the Kuwaiti's society towards e-learning. The participants were 276 volunteers. Data was collected through a questionnaire based on developing e-learning. The study was applied to the non-Arab courses. The results indicated a negative attitude towards e-learning. They showed no significant statistical differences in attitudes towards e-learning attributed to gender but significant statistical differences were found due to the students' academic level.

Cavus, Uzunboylu, and Ibrahim (2006) aimed at investigating the effectiveness of LMSs and the cooperative tools in web-based language teaching. The results indicated the effectiveness of using LMSs integrated with cooperative learning tools and the success of the programming languages in achieving their aims through LMSs and the cooperative learning tools.

Sadeque (2005) explored the extent to which the academic universities utilized e-learning and teaching technologies. The questionnaires were administered to 259 faculty staff, most of them are females with their experience in teaching ranging from 5 to 10 years. The results revealed a relationship between the academic competencies, experience and attitudes towards e-learning. This indicates that experience in e-learning and its

skills is a basic and influential factor in accepting and utilizing e-learning at the universities.

Commentary on the previous studies

1. The studies were conducted in different periods. The most recent was Trayek and Hassan (2013) and the oldest was Sadque (2005).
2. All samples in the studies included males and females.
3. The educational stages of the samples varied. Some studies were administered to the secondary stage students (Bin Douhy, 2010), university students (Trayek and Hassan, 2013; Faroque, 2010; Hussein, 2011 and Alkarawany, 2010) and postgraduate students (Mohammed and Almatary, 2009). Some studies were administered to in-service teachers (Lal, 2009) while others focused on faculty staff (Mohammed, 2007; Faroque, 2010; Alkahtany, 2010; Hussein, 2011; Sadeque, 2005).

Theoretical background

This study is based on some theoretical bases related to theories of teaching and learning. Attitudes towards using the Blackboard LMS in teaching the courses is related to the Cognitive Dissonance Theory (Festinger,1957) which is based on persuasive communication, and its different premises which are based on persuasion and its role in changing attitudes or forming new one in the learner. It studies the effect of presenting rewards or postponing them on changing attitudes and modifying the behavior, and the effect of social communication.

The study is also based on Social Learning Theory (Bandura, 1989: 275) which entails that people learn from each other through observation, modeling and imitation. The Social Development Theory (Collaborative) is related to the learning situations which assert the importance of collaborative learning (Learning theories.com, 2014: 1).

LMSs emerged from Integration Learning Systems (ILSs) which introduce supplementary activities beside the educational content to introduce a more specialized learning. They introduce

a free content that is separate from the course and include management and monitoring. They are a basis through which the content of teaching is managed, the aims and the people inside the educational system evaluated, the progress occurring in achieving the aims monitored, and data collected and the learning processes in the whole institution supervised. LMSs do not only present content but also allow registration in courses, course management, analyzing follow ups and presenting reports. Most LMSs allow easy log in to the content and management of learning. LMSs can be used by educational institutions to enhance and support teaching inside the classroom (Rouse, 2015: 1).

Content Management Systems (CMSs) are computer applications that enhance self- pacing of learning inside the course, organization of students, monitoring their performance, storing their activities and facilitating the communication process among them and between them and the teacher. These functions can be also seen in LMSs. Therefore, they are usually confused but a CMS is one of the LMSs' functions.

LMSs introduce the courses online to learners, manage the students and monitors their progress in performing all the presented training activities. It is connected to a programming technology that introduces varied environments to the users, developers, composers, course designers and experts in the educational subjects concerned with design, storage, management, introducing digital technology and the e-learning content to the Central Object Repository center. On the other hand, CMSs focus on developing, and publishing content through LMSs and reusing content. In this way, they lessen the efforts repeated in developing the courses and adjusting them to suit many users through modifying the course and re-publishing and introducing it to other users, allowing quick collection of good content (Rouse, 2015:1).

LMSs functions

1. Introducing content of learning.

2. Registration.
3. Managing training.
4. Managing curricula.
5. Managing skills and competencies.
6. Managing records of training.
7. Analyzing weaknesses.
8. Introducing individual development plans.
9. Introducing reports.
10. Managing resources.
11. Applying virtual systems.
12. Integration of performance management systems (Rouse, 2015:1).

LCMSs functions

1. Developing cooperative content.
2. Controlling content templates.
3. Making content management such as indexing and reusing easy.
4. Publishing.
5. Integration among workflow steps.
6. Organizing automatic interaction interfaces (Rouse, 2015).

Both LMSs and LCMSs work together for developing the course content introduced to the students. They are often confused as course management systems. The Blackboard is a program that includes the contributions of these systems (Rouse, 2015).

Instructors' roles and responsibilities in dealing with the Blackboard LMS

1. Mastering the skills of designing instructional situations, their planning and implementation, and all what this requires concerning sub-skills, and introducing active learning models.
2. Introducing curative programs that suit each learner.

3. Designing enrichment programs that challenge the excellent learners.
4. Evaluating the curricular and enrichment educational programs and encyclopedias according to total quality standards.
5. Selecting the programs suitable for each category of learners.
6. Conducting discussions, giving examples and answering inquiries.
7. Introducing lists of references that the learners make use of.
8. Using e-mails and file transfer (Mohammad, 2001: 252-253).

The instructor has to be a developer of the e-content and utilizes it using learning and teaching strategies and all the communication tools available for communication with the students, the specialists and parents in order to develop creativity and innovation among the students. This is because the e-content is distinguished by the density and integration of multimedia and links with sources of information on the internet (Algazzar, 2001:324).

Results

The aforementioned descriptive and deductive statistical analyses were conducted. The analyses revealed a group of results. To make their presentation easy, they were classifies into groups.

Results related to the first question

First: To answer the first question "What are the current abilities of the faculty staff concerning using the Blackboard LMS in teaching the courses?", a questionnaire was administered for this purpose. It consisted of three dimensions.

Results of the first dimension: Techniques of dealing with the Blackboard LMS

The following table presents frequencies, percentages, Chai Square, relative weight and estimation of importance for the

items related to techniques of dealing with the Blackboard LMS of faculty staff's use of the Blackboard LMS in teaching the courses. The following results were reached.

Table 12: Frequencies, percentages, Chai Squares for the techniques of dealing with the Blackboard LMS

Item	Yes No./ %	Sometimes No./ %	No No./ %	X^2	Sig.	Relative weight	Importance
I can design webpages 1. for e-learning.	17 28.3%	0	43 71.3%	11.267	Not sig.	94	1.57
2. I can manage online discussions.	32 53.3%	0 0	28 46.7	0.267	Not sig.	124	2.067
3. I master designing a course for the e-learning environment.	33 55%	1 1.6%	26 43.4%	28.3	Sig.	127	2.116
I can introduce 4. guidelines for e-learning.	39 65%	1 1.6%	20 33.3%	36.1	Sig.	139	2.316
I write guidelines for 5. my students through e-learning.	51 85%	1 1.6%	8 13.3%	73.3	Sig.	163	2.716
I can design e-tests. 6.	26 43.3%	0 0	34 56.7%	1.067	Not sig.	122	1.866
I can deal with the 7. legal status such as property and privacy.	19 31.6%	0 0	41 68.4	8.067	Not sig.	98	1.633
I search for learning 8. resources through the internet.	26 43.3%	2 3.3%	32 53.3%	25.2	Sig.	114	1.9
I design e-learning 9. resources for my students.	37 61.6%	0 0	23 38.4%	3.267	Not sig.	134	2.233
I contact my students 10. using the internet.	38 63.4%	1 1.6%	21 35%	34.2	Sig.	137	2.283
I evaluate e-learning 11. outcomes.	43 71.6%	2 3.3%	15 25%	43.9	Sig.	148	2.466
I have information 12. and communication skills.	40 66.4%	2 3.3%	18 30%	36.4	Sig.	142	2.366
I use the basics and 13. methods of learning based on computer guidance.	14 23.4%	1 1.6%	45 75%	51.1	Sig.	89	1.483
I design e-teaching 14. programs.	33 55%	1 1.6%	26 43.4	28.3	Sig.	127	2.116

It is clear from table 12 that there are statistical significant differences at the 0.01 level among the faculty staff responses on the items of the first dimension, techniques of dealing with the Blackboard LMS, of the questionnaire of faculty staff abilities in using the Blackboard LMS in teaching in favor of accepting the response. Most items in the dimension received high degree of importance which means the existence of a high percentage of the techniques of dealing with the Blackboard LMS in teaching the courses among the faculty staff. They are, in order, as follows: I write guidelines for my students through e-learning with importance reaching (2.716) and relative weight (163), I evaluate e-learning outcomes with importance estimating (2.466) and (148) relative weight, having the communication and information skills with importance reaching (2.366) and relative weight (143), the ability of introducing guidelines through e-learning with importance reaching (2.316) and relative weight (139), contacting students using the internet with importance reaching (2.283) and relative weight (137), the ability of designing e-learning resources with importance reaching (2.233) and relative weight (134), and finally mastering designing courses for the e-learning environment and designing e-teaching programs with importance reaching (2.116) and relative weight (127) for both abilities.

The techniques of dealing with the Blackboard LMS which are not available in high percentage among the staff members were as follows: the ability of managing online discussions, designing e-tests, searching for learning resources through the internet, designing webpages for e-learning, using the basics and methods of learning based on computer guidance and finally dealing with the legal status such as property and privacy.

Results of the second dimension: Teaching skills using the Blackboard LMS

The following table presents frequencies, percentages, Chai Square, relative weight and estimation of importance of the faulty staff's teaching skills using the Blackboard LMS. This revealed the following results.

Table 13: Frequencies, percentages, and Chai Square for the teaching skills using the Blackboard LMS

Item	Yes No./ %	Sometimes No./ %	No No./ %	X^2	Sig. at 0.01	Relative weight	Importance
1. I analyze the learners' e-learning needs.	31 51.7%	1 1.6%	28 46.7%	27.3	Sig.	123	2.05
2. I predict the problems of e-learning in teaching.	47 78.3%	0 0	7 21.7%	19.1	Sig.	154	2.566
3. I support the students with different learning styles.	34 56.6	1 1.6%	25 41.6%	29.1	Sig.	129	2.15
4. I can formulate the aims of the e-learning course.	39 65%	2 3.3%	19 31.7%	34.3	Sig.	140	2.33
5. I can enhance the learners' motivation.	31 51.7%	2 3.3%	27 45%	24.7	Sig.	124	2.066
6. I can design teams for assessing e-learning.	42 70%	1 1.6%	17 28.47%	42.7	Sig.	145	2.416
7. I can use active learning methods in the e-course.	31 51.6%	0 0	29 48.4%	1.67	Not sig.	122	2.033
8. I can enrich the e-learning experiences.	41 68.4%	1 1.6%	18 30%	40.3	Sig.	142	2.383
9. I support self-learning through e-learning.	36 60%	2 3.3%	22 36.7%	29.2	Sig	134	2.233
10. I support problem solving using e-learning.	36 60%	3 5%	21 35%	27.3	Sig.	135	2.25
11. I evaluate learners using non-traditional methods.	15 25%	0 0	45 75%	15	Sig.	90	1.5
12. I deal with and remedy the learners' counter-culture.	22 36.7%	1 1.6%	37 61.7%	32.7	Sig.	75	1.25

It is clear from table 13 that there are significant differences at 0.01 among the faculty staff's responses on the items of the second dimension dealing with the teaching skills using the Blackboard LMS in favor of accepting the response.

Most items of the questionnaire received a high degree of importance which means the existence of a high percentage of teaching skills using the Blackboard LMS among the staff members in teaching the courses. They are according to importance as follows: predicting the problems of e-learning in teaching with importance and relative weight reaching 2.566 and 154 respectively, designing teams for assessing e-learning with importance and relative weight reaching 2.416 and 145 respectively, enriching the e-learning experiences with importance and relative weight reaching 2.383 and 142 respectively, formulating aims for the e-learning course with importance and relative weight reaching 2.33 and 140 respectively, supporting problem solving using cooperative learning with importance and relative weight reaching 2.25 and 135 respectively, supporting self-learning through e-learning with importance and relative weight reaching 2.2333 and 134 respectively, then supporting the students with different learning styles with importance and relative weight reaching 2.15 and 129 respectively, followed by mastering enhancing the learners' motivation with importance and relative weight reaching 2.066 and 124 respectively, analyzing the learners' e-learning needs with importance and relative weight reaching 2.05 and 123 respectively, and finally using active learning methods in the e-course with importance and relative weight reaching 2.033 and 122 respectively. However, the teaching skills using the Blackboard LMS which did not exist in a high percentage among the faculty staff were evaluating the learners using non-traditional methods and dealing with the learners' counter-culture.

Results of the third dimension: Previous experience of using the Blackboard LMS

The following table presents frequencies, percentages, Chai Square, relative weight and estimation of importance of the faulty staff's previous experience in using the Blackboard LMS. This revealed the following results.

Table 14: Frequencies, percentages, and Chai Square for the previous experiences in using the Blackboard LMS

Item	Yes/No./ %	Sometimes No./ %	No/No./ %	X^2	Sig. at 0.01	Relative weight	Importance
1.I developed an e-learning material	8 13.4%	1 1.6%	51 85%	73.3	Sig.	77	1.283
2. I developed an e-learning course.	17 28.3%	1 1.6%0	42 70%	42.7	Sig.	95	10583
3. I used a virtual learning environment.	22 36.7%	0 0	38 63.3%	4.27	Not sig.	104	1.733
4. I used composing e-learning programs.	13 21.7%	1 1.6%	46 76.7%	54.3	Sig.	87	1.45
5. I used e-learning materials that were developed by other universities.	7 11.7%	1 1.6%	52 86.7%	77.7	Sig.	75	1.25
6. I used a commercial e-course.	4 6.4%	0 0	56 94.3%	45.1	Sig.	68	1.133
7. I participated as a learner in an e-learning course before.	24 40%	0 0	36 60%	2.4	Not sig.	108	1.8
8. I managed online discussions using video conferences.	8 13.4%	0 0	52 86.6%	32.27	Sig.	76	2.266

It is clear from table 14 that there were statistical significant differences among the faculty staff's responses to the items of the third dimension that dealt with previous experience in using the Blackboard LMS for teaching the courses in the faculty staff's questionnaire of abilities to use the Blackboard LMS in favor of rejecting the response. This means that the faculty staff had no previous experience in using the Blackboard LMS in teaching the courses. They only had experience in participating as learners in virtual classrooms' sessions and used virtual learning environments. The importance of these items reached 1.8 and 1.733 with a relative weight reaching 108 and 1.4 respectively.

The faculty staff had no previous experience in developing an e-learning course, using e-learning composing programs,

developing e-learning materials, managing online discussions using video conferences, using any e-learning materials developed by other universities, and finally using a commercial e-learning course.

Second: Results related to the faculty staff's attitudes towards using the Blackboard LMS in teaching the courses

The results were divided as follows:

To answer the second question "What are the faculty staff's attitudes towards using the Blackboard LMS in teaching the courses?", a scale of faculty staff's attitudes towards using the Blackboard LMS was designed (Appendix 1).

Presenting the results of faculty staff towards using the Blackboard LMS in teaching the courses according to academic degree ((professor – associate professor – assistant professor – assistant lecturer – demonstrator). To answer the third question "Do faculty staff's attitude differ according to academic degree (professor – associate professor – assistant professor – assistant lecturer – demonstrator)?", the validity of the second hypothesis which states "there are no statistical significant differences at the 0.05 level between the mean scores of the faculty staff on the scale of attitudes towards using the Blackboard LMS in teaching the courses due to academic degree (professor – associate professor – assistant professor – assistant lecturer – demonstrator)" was checked.

Mean scores and standards deviations for the academic degree variable

The following section presents the mean scores and standard deviations in their distribution among the faculty staff's scores on the scale of attitudes towards using the Blackboard LMS in teaching the courses according to the academic degree (professor – associate professor – assistant professor – assistant lecturer – demonstrator). Table 15 presents these results.

Table 15: Mean scores and standard deviations for groups according to the academic degree of the faculty staff

Group	Mean score	Standard deviation	No.
Associate professor	108.25	12.792	9
Assistant professor	115.615	28.715	37
Assistant lecturer	118.000	18.357	3
demonstrator	124.031	14.259	11
Total	119.400	18.976	60

It is clear from table 15 that the highest mean score was for the demonstrators' group with a mean score 124.031 followed by the assistant lecturers' group with a mean score reaching 118.000, the assistant professors' group with a mean score reaching 115.615 and finally the associate professors' group with a mean score reaching 108.25.

To check the validity of this hypothesis, the researcher used One Way ANOVA to measure the differences among the faculty staff's scores on the scale of attitudes towards using the Blackboard LMS in teaching.

Table 16: Significance of differences and results of One Way ANOVA for the academic degree of the faculty staff

Source of variance	Sum of squares	Degree of freedom	Mean squares	F ratio	Level of sig.
Among groups	1644.351	3	548.117	1.566	0.208
Within groups	19602.049	56	350.037		
Total	21246،400	59			

Analyzing the results in table 16 shows that the differences are not significant which indicates that there were no differences between the mean scores of the faculty staff on the scale of attitudes towards using the Blackboard LMS in teaching the courses due to academic degree (professor – associate professor – assistant professor – assistant lecturer – demonstrator). Thus, this null hypothesis is accepted.

Presenting the results related to the attitudes of the faculty staff towards using the Blackboard LMS in teaching the courses according to experience in using the computer (one, two, five years, and more)

To answer the fourth question of the study "Do faculty staff's attitude differ according to experience in using the computer (one, two, five years and more than five years)?", the validity of the second hypothesis which states " there are no statistical significant differences at the 0.05 level between the mean scores of the faculty staff on the scale of attitudes towards using the Blackboard LMS in teaching the courses due to experience in using the computer (one, two, five years and more than five years) was checked.

Mean scores and standard deviations according to experience in using the computer variable

The following section presents the mean scores and standard deviations in their distribution among the faculty staff's scores on the scale of attitudes towards using the Blackboard LMS in teaching the courses according to experience in using the computer (one, two, five, and more than five years)). Table 17 presents these results.

Table 17: Mean scores and standard deviations for groups according to experience in using the computer

Group	Mean score	Standard deviation	No.
One year	124.111	141.844	8
Two years	115.351	20.699	13
Five years	129.000	4.000	7
More than five years	126.545	15.436	32
Total	119.400	18.976	60

It is clear from table 17 that the highest mean score was for the five years group followed by the group with more than three years, one year and finally two years of computer experience with a mean score 129.000, 126.545, 124.111 and 115.351 respectively. This result indicates that most of the participants had a high experience in using the computer.

To verify the validity of this hypothesis, the researcher used One Way ANOVA to measure the differences between the faculty staff's scores on the scale of attitudes towards using the Blackboard LMS in teaching the courses according to years of experience with the computer (one, two, five and more years).

Table 18: Significance of differences and results of One Way ANOVA for the experience with the computer

Source of variance	Sum of squares	Degree of freedom	Mean squares	F ratio	Level of sig.
Among groups	1880.854	3	626.951	1.813	1.55 Not sig.
Within groups	1936.546	56	345.813		
Total	21246.400	59			

Analyzing the results in table 18 shows that the differences are not significant which indicates that there were no differences between the mean scores of the faculty staff on the scale of attitudes towards using the Blackboard LMS in teaching the courses due to experience with the computer (one, two, five or more than five years). Thus, this null hypothesis is accepted. The researcher attributed these results to the participants' high level, generally, in the experience with the computer.

Presenting the results related to the level of utilizing e-learning in teaching the courses (complete –blended or supportive e-learning)

To answer the fifth question of the study which states "Do faculty staff's attitude differ according to the level of utilizing e-learning (complete, blended or supportive e-learning)?", the validity of the third hypothesis which states "there are no statistical significant differences at the 0.05 level between the mean scores of the faculty staff's scores on the scale of attitudes towards using the Blackboard LMS according to level of utilizing e-learning (complete, blended and supportive e-learning) was checked.

Mean scores and standard deviations according to level of utilizing e-learning in teaching the courses

The following section presents the mean scores and standard deviations in their distribution among the faculty staff's scores on the scale of attitudes towards using the Blackboard LMS in teaching the courses according to level of utilizing e-learning in teaching the courses (complete, blended and supportive e-learning). Table 19 presents these results.

Table 19: Mean scores and standard deviations for groups according to level of utilizing e-learning in teaching the courses

Group	Mean score	Standard deviation	No.
Complete e-learning	125.500	20.885	4
Blended e-learning	117.833	6.337	6
Supportive e-learning	115.909	3.798	33
The traditional method	127.667	4.674	6
E-learning (complete- blended- supportive)	124.000	3.849	11
Total	119.400	2.449	60

It is clear from table 19 that the highest mean score was for the group using the traditional method with a mean score reaching 127.667 followed by the complete e-learning group, the e-learning (complete- blended- supportive) group, the blended learning group and finally the supportive e-learning group with mean scores reaching 125.500, 124.000, 117.833 and 115.909 respectively. This result indicates that a great number of the faculty staff use the traditional method. Those were mentioned before as most of them specialize in Islamic Studies and believe that the Blackboard LMS is not appropriate for teaching the courses related to the formation of doctrine. Other staff members are convinced with the traditional method and do not want to change it. This asserts the necessity of exerting efforts for changing their attitude towards e-learning, in general, and LMSs in particular through increasing technical support presented by the deanship of e-learning to the faculty staff at the faculties.

To verify the validity of this hypothesis, the researcher used One Way ANOVA to measure the differences between the faculty staff's scores on the scale of attitudes towards using the Blackboard LMS in teaching the courses according to level of utilizing e-learning in teaching the courses (complete, blended and supportive e-learning).

Table 20: Significance of differences and results of One Way ANOVA for the level of utilizing e-learning in teaching the courses

Source of variance	Sum of squares	Degree of freedom	Mean squares	F ratio	Level of sig.
Among groups	1208.506	4	302.127	0.829	0.512 Not sig.
Within groups	20037.894	55	364.325		
Total	21246.400	59			

Analyzing the results in table 20 shows that the differences are not significant which indicates that there were no statistical significant differences between the mean scores of the faculty staff on the scale of attitudes towards using the Blackboard LMS in teaching the courses due to level of utilizing e-learning (complete, blended and supportive). Thus, this null hypothesis is accepted.

Discussion of the results

The main aim of this study was to identify the faculty staff's abilities in using the Blackboard LMS in using the courses and their attitudes towards using them according to academic degree (professor – associate professor – assistant professor – assistant lecturer – demonstrator), experience in using the computer (one – two – five years and more than five years) and level of utilizing e-learning in teaching the courses (complete – bended and supportive e-learning).

The results related to the faculty staff's abilities in using the Blackboard LMS in teaching the courses showed that they had many techniques of dealing with the Blackboard LMS in teaching the courses, they also had many teaching skills using the Blackboard LMS and that they had no previous experience in using LMSs except for participating as learners in virtual classroom training sessions.

Concerning the results of the faculty staff's attitudes towards using the Blackboard LMS in teaching the courses, there were no statistical significant differences in attitudes due to academic degree (professor – associate professor – assistant professor – assistant lecturer – demonstrator). This result is contradictory to Lal (2009) who revealed that faculty staff less than five years of experience had more positive attitudes towards e-learning. In addition, there were no statistical significant differences in attitudes due to experience in using the computer (one – two – five years and more than five years). This result is consistent with Alkahtany (2010) which revealed the absence of attitudes due to experience in using the computer or the internet and Farouk (2010) which showed no differences due

to mastery of the computer. However, this result is different from Sadque (2005) which indicated that experience in e-learning and its skills is an important and influential factor in accepting and utilizing e-learning in the universities. Concerning the third result, there were no statistical differences in attitudes due to level of utilizing e-learning (complete, blended and supportive). This result is consistent with Mohammed and Almatary (2009) which revealed no significant differences in the attitudes of graduate studies students towards e-learning applications due to experience in e-courses. The researcher believes that having the techniques of dealing with the Blackboard LMS and the teaching skills for using it was an influential factor in the results which indicated the absence of significant differences attributed to academic degree, experience in using the computer and level of utilizing e-learning. This is because the ability of dealing with the LMS, in general, increases attitudes towards it.

Recommendations

1. Making connection to the internet available for all the faculty staff at the computer labs with high speed, setting alternative plans for dealing with interruption in the connection, and making use of Wi –Fi connection for the faculty staff as well as the students.
2. Supporting those who use e-learning financially and emotionally.
3. Setting a plan for unifying the efforts between the Egyptian universities, and making the cooperation and information and programs sharing which serves e-learning between them easy, in order not to repeat the efforts.
4. Generalizing using the Blackboard LMS to the different educational stages.
5. Training the instructors on using LMSs in the courses introduced at the different educational stages.
6. Designing e-learning courses based on sound scientific standards to guarantee continuity.

7. Supporting the traditional teaching through utilizing e-learning to overcome the educational problems.
8. Raising the awareness of the faculty staff concerning the importance of utilizing LMSs in the educational process.
9. The necessity of activating LMSs, specially the Blackboard, due to its advantages which allows building an e-learning culture.
10. Providing an infrastructure for training the students and the faculty staff on LMSs.
11. Developing the effectiveness of the computer and internet labs in order to suit the LMSs.
12. Providing technical support for solving the students' and the faculty staff's problems online in order to overcome the obstacles of using the LMSs.
13. Motivating the faculty staff to use the Blackboard LMS.

Suggestions for further research

1. Conducting a similar study on a similar sample of males and a mixed one including males and females.
2. Studying the students' attitudes towards e-learning using LMSs at the Egyptian universities.
3. Studying the effectiveness of teaching using the Blackboard LMS in developing the students' skills.
4. Studying the students' attitudes towards other LMSs.

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