

Attitudes of Preparatory Programs Students at the Institute of Public Administration towards the Learning Management System (Blackboard)

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Abstract

This study aimed to recognize the attitudes of the preparatory program students at the Institute of Public Administration (IPA), in the kingdom of Saudi Arabia towards the use of Learning Management System (Blackboard), and the main obstacles limiting the usage. A relative stratified random sample of (158) students were surveyed through a questionnaire, to answer three question, and tested five hypotheses. The results showed that the total means of study sample attitudes were (3.94) which indicates that they agreed to use Blackboard. The individuals supervising the LMS, the users' satisfaction regarding the system and the system's response to emerging developments are the factors that have statistically significant influence on training, whereas the organizational environment and the availability of safety and security have no statistically significant influence on training. The study showed that several obstacles that limit using Blackboard such as lack of suitable training and enough time for training, the unavailability of clear communication means to provide technical support, and there is no obligations to use the system. The study suggested several recommendations; among them students should be trained to use the Blackboard, obligation to use Blackboard in all preparatory programs, IPA, should continue to provide all Blackboard requirements, and the IPA should expand the implementation of Blackboard in all training activities.

Keywords: Preparatory Programs Students, Training, Learning Management System, Blackboard.

Introduction

Many training institutions seek to provide suitable training and learning management systems in order to keep pace with the new developments associated with training. Thus, these institutions would be able to provide a suitable training that fulfil the needs of the beneficiaries. The training institutions invest a lot in this development to facilitate the training and learning processes that in turn help to implement e-training activities easily (O'Leonard & Bersin, 2006). In this context, the training and learning management systems market will be about \$21 billion in the year 2021, and its compound annual growth rate will be about (24.7%) during the period 2016 – 2021), (marketsandmarkets.com, 2016).

With the rapid developments in ICTs, several training institutions adopted these systems in order to promote the training efficiency. Among these systems is the learning management systems (Blackboard). These platforms became an integral part of training process in several training institutions around the world. These platforms owe their continuous growth and development to the development of ICTs. These technologies became, during the 21st century, an integral part of training and learning processes as a way to facilitate and simplify their tasks, (Agarwa, and Lenka, 2018). As the e-training became a noticeable reality in training environments, these qualitative developments in the field of training stimulates the attention of researchers and practitioners regarding the evaluation of the usage of such systems and recognize the attitudes towards them, and the obstacles limiting their use. This, in turn, led to the importance of recognizing the attitudes of the students in the preparatory programs at the Institute of Public Administration in the Kingdom of Saudi Arabia towards the use of Learning Management System (LMS) (Blackboard), as well as the obstacles facing the students while using them.

First Section: General Framework of the Study

Problem Statement

Training is one of the most important process that all training institutions, regardless of their type, seek in a way that guarantees the development of trainees performance, and thus granting them necessary skills and knowledge that qualify them to the labour market. These institutions seek also to keep pace with the rapid developments in using training tools made available by technologies especially the information and communication technologies (ICT). More than two decades ago, the learning management systems (LMS) came to light and had a wide popularity in different training and learning environments. These systems, in turn, developed the training and learning processes. However, some environments suffer a lack of researches that focus on recognizing the attitudes of those using such systems especially students (Vogt, 2016).

As the use of electronic platforms, especially Blackboard, continues to grow in different training institutions in the Kingdom of Saudi Arabia; and as the attitudes are important in influencing the use of such platforms efficiently, as Davis (1989) indicated that the attitude affects the desire to use technologies in general. Anakwe & Kessler (2001) pointed out that the attitudes also influenced joining the curricula implemented electronically; and as the Institute of Public Administration implements the LMS Blackboard in the training process for almost ten years now; and as there are no studies; this study aims to recognize the attitudes of the students towards the use of such a platform and its influence on the training process, as well as identifying the main obstacles limiting its use in the training environment.

Study Objectives

This study aims to achieve the following:

1. Recognizing the attitudes of the preparatory program students at the Institute of Public Administration towards the use of Blackboard in training process.
2. Identifying the effect of Blackboard on training.
3. Finding the main obstacles limiting the use of Blackboard by students.
4. Suggesting suitable recommendations that aim to benefit from Blackboard in the training process.

Study Questions

To achieve the study objectives, this study aimed to answer the following questions:

1. What are the attitudes of preparatory program students at the Institute of Public Administration towards the use of Blackboard in training process?

2. What is the influence of using Blackboard on training from the point of view of preparatory programs students?
3. What are the main obstacles limiting the use of Blackboard from the viewpoint of students?

Study Hypotheses

The study hypotheses are identified in the following hypotheses:

Hypothesis 1: there is a statistically significant value at the significance level ($\alpha \geq 0.05$) regarding the individuals working on the Blackboard in training.

Hypothesis 2: there is a statistically significant value at the significance level ($\alpha \geq 0.05$) regarding the satisfaction of the users of the Blackboard in training.

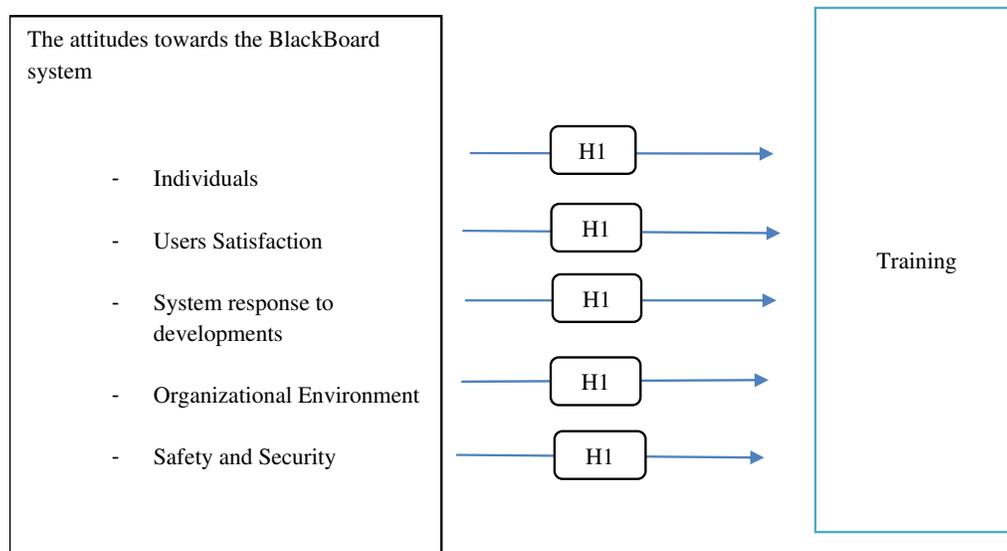
Hypothesis 3: there is a statistically significant value at the significance level ($\alpha \geq 0.05$) regarding the response of Blackboard to the new developments in training.

Hypothesis 4: there is a statistically significant value at the significance level ($\alpha \geq 0.05$) regarding the organizational environment where the Blackboard is used in training.

Hypothesis 5: there is a statistically significant value at the significance level ($\alpha \geq 0.05$) regarding the safety and security of the Blackboard in training.

Study Model

The study focuses on testing the influence of using Blackboard in training. To achieve this objective, the study variables were categorized in five dimensions; dimension 1: the individuals working on the system, and it is represented in study variables (1, 2, 3). Dimension 2: satisfaction of students using the system, and it is represented in study variables (4, 5, 6, 7, 8). Dimension 3: response of the system to the new developments, and it is represented in study variables (9, 10, 11, 12). Dimension 4: the organizational environment where the system is functioning, and it is represented in study variables (13, 14, 15). Dimension 5: safety and security of the system, and it is represented in study variables (16, 17, 18). As for the Dependent variable, it is represented in the study variables (19- 38) as shown in the following model.



Study Importance

The importance of this study originates from its focus on one of the most important platforms for e-training and learning which is Blackboard. The study will highlight this platform, recognize the attitudes towards it and its influence on training process, and the main obstacles that limit the use of this platform optimally in the training process. The study importance also stems from its being directed towards the preparatory programs students who actually use this platform in a way that guarantees benefitting from their views and opinions regarding using it. This in turn will help to use this platform in a better way in training environment at the IPA. The study also tackles the training themes specially in applying its modern trends whether technological tools or means. This will add a scientific dimension for the planners, practitioners and those interested in such advanced technological applications. The study also adds a practical dimension in that it enables to benefit from its conclusions and recommendations that may contribute in developing the use of such platforms at the level of the users whether students or both training or government entities supervising or benefiting from these platforms. This in turn will help in increasing attention towards these platforms in a way that achieves the sought objectives of the training process.

Study Limitations

The study limitations are represented in recognizing the attitudes of the students towards the use of Blackboard in the training process, and the main obstacles limiting such use. The study sample consisted of a group of students in the preparatory programs at the IPA. The study was conducted on the students who completed the second term of the (training) academic year 2018 – 2019.

Section 2: Theoretical Framework and Previous Literature

First: Theoretical Framework

Learning Management System

Training institutions tend to provide modern training tools and methods including LMS to help provide the trainees the necessary skills and knowledge. This in turn will help in qualifying the trainee for work and imparting necessary skills and knowledge to the trainees in a way that enables them to perform their jobs in the future (Hassan, 2019). With the growth of these technological developments, several electronic learning management systems were used, including Blackboard, CMC, WebCT and Moodle, with the Blackboard as the most prominent of such systems. Blackboard became well known, this platform is considered one of the easy-to-use platforms by both students and staff, something which made of it one of the most famous platforms for education and training (Lane & Shelton, 2001).

Since Blackboard was first used, it is considered the most common platform among different educational and training institutions with regard to providing help and support in implementing electronic training and education (Zanjani, et al, 2017). Nuangchalerm (2017) suggested that it created a radical change in using LMSs. Alturki et al (2016) indicated that several educational and training institutions in the Kingdom of Saudi Arabia are benefitting from this platform for about ten years. Several studies (Zanjani, et al., 2017; Back et al., 2016; and Islam, 2013) pointed out that most characteristics and functions of electronic learning systems including Blackboard are not employed by users with their different levels. LMSs are defined generally as model software that help in documenting, tracking, preparing and providing electronic learning and educational courses (Zaharias & Pappas, 2016).

With the development of training tools and means based on the development of ICTs, e-training became known through such different platforms, and it affected, in turn, the patterns to provide and submit it to the beneficiaries. The technological tools influenced the individuals and improved their performance and living levels. Technology revolution specially ICTs influenced human education, training and learning and made the factor to quickly adapt to these changes one of the most important

economical and productivity factors (Muhammed 2018: 14). Both countries and training institutions devoted their attention to these modern trends as they realized the importance of e-training in recent years (Kanfer and Ackerman, 2004). In the Kingdom of Saudi Arabia, there is an increased attention to training and education as they are thought of as main feeders to fulfil the pressing needs for national development. This is reflected in the volume of government expenditure as the training, education, and workforce sectors enjoy vast importance. The state budget for the year 2019 allocated SAR 192 billion for the public education, higher education and training workforce. These allocations include what is allocated for the initiative programs to achieve the Kingdom Vision 2030 amounting to SAR 4.89 billion, in addition to what is allocated for the initiative programs to develop human capabilities (Ministry of Finance, State Budget Statement for the fiscal year 2019, P 63).

With these continuous developments in employing and integrating technology deliverables in this process, several training patterns appeared as a result of the influence of such platforms including Open Training, Distance Training, E-training, Digital Training, Mobile Training, Online Training, Virtual Training and Blended Training. These training patterns are generally characterized by their dependence on electronic means between the trainer and the trainee. They depend on providing content through modern communication means with no regard to the boundaries of time and place. Another advantage of such patterns is that they improve relations between the workers and enhance the spirit of cooperation and belonging (Musa, 2018). As technology possess a vast importance in the training process, it gained the attention of firms by employing it in different fields. The Training Industry Report for the year 2018 in the United States of America indicated that there is a rise in using technologies in the year 2018 as about (25.6%) of training hours are done directly online or through ICTs. The Report also pointed out that (10.2%) of training is done through virtual training (Training Magazine, 2018).

Obstacles Facing LMSs

Despite the wide spread of LMSs, they face several challenges. Milheim (2006) suggested several challenges including achieving effective communication between the trainer and the trainees, effective response of the trainees, and the lack of skills of beneficiaries regarding dealing with advanced technological means and tools. Higazi et al. (2006) pointed out several challenges such as the provision of e-training needs in general, lack of efficiency of human capabilities, the importance of time element in training on technology, diverse technological tools and means that can be applied in blended learning.

Ettinger, Holton, and Blass (2006) identified experiences and difficulties faced by several firms when trying to employ e-training. They indicated that e-training can't be necessarily employed to replace traditional training, and it is considered a solution for all problems these firms face in training. They also stressed the importance to identify training needs carefully as this will lead to using technology not just applying technology. They indicated the importance to choose the suitable time for employing e-training in order to guarantee individuals participation and thus success of the experiment. They also stressed on the number of workers who will be granted the opportunity to learn through such system and the influence of that on work. There are also specific difficulties related to applying e-training in a number of companies regarding time, employees, the adopted technology and measuring the effects of training. Groveman (2007) suggested several challenges such as the provision of suitable technological tools and means, lack of skills to apply blended e-training skills regarding design and implementation, assessing blended e-training content. Alghamdi (2008) pointed out several challenges including lack of financial resources to provide hardware and supplies, lack of usage skills, scarcity of professional cadres to adopt such kind of training, high costs associated with employing hardware and equipment, lack of participation by the trainees, and focus on cognitive aspects.

Alsherman (2015) suggested that these challenges can be categorized in challenges related to adopting technology, challenges related to electronic aspect or general administrative challenges. Several challenges facing the adoption of e-training can be spotted. The most prominent of these challenges is the rationalization of the use and adoption of technologies in training specially from the

viewpoint of relation between these technologies and other different technological components both on the organizational or technological levels. To overcome such diversified challenges, the individual efforts might not be sufficient to do so as these challenges require organizational and collective efforts specially with rapid developments in modern technologies. The main challenges to be pointed out especially in developing countries are lack of awareness of the importance of these strategies in training, and the vitality to employ them in different practical environments. This is maximized by the lack of qualified trainers in the field of training, unfamiliarity with the different developments in modern scientific methods that can adopted in the field of training in developing countries. This might be a result of the lack of financial resources and little attention towards these new trends in training. Other main challenges are the adoption of modern strategies of training and lack of main components of training environments. This, in turn, will help in employing these new strategies in preparing the suitable training environment. Some environment are still possessing the traditional patterns and weak components of training rooms, smart labs and facilities that may contribute to the adoption of these modern strategies and training methods.

The Institute of Public Administration and LMSs

The Institute of Public Administration (IPA), was established in 1961, as an autonomous government body with the aim of increasing the efficiency of civil employees and preparing them scientifically and practically to shoulder their responsibilities and practice their jurisprudence in a way that increases administration level, support the foundation of national economy development and contribute in administrative organization and provide consultation in administrative problems, prepare researches related to administration affairs and enhance cultural relations in the field of public administration. The IPA began implementing preparatory programs since the 1970s and their number amount to (11) programs in different majors (The Institute of Public Administration, 2009). To keep pace with Kingdom Vision 2030, the Institute designed (21) preparatory programs. The Institute also keeps pace with the new trends in e-training by adopting LMS (Blackboard) for more than 10 years now. The Institute uses Blackboard in the preparatory programs to facilitate training process and as a main feeder in the training process according to modern trends in training.

Second: Previous Studies

Training and learning management systems in general captured the attention of several researchers and practitioners. In this part, the researcher will explore the most important studies related to study theme. Jones & Jones (2005) conducted a comparative study between the attitudes of students and teachers towards usage and effectiveness of LMS including Blackboard in Midwestern University in the United States of America. The study population included (971) students. The study conclusions stated that students' attitudes were positive, learning process through LMS were useful, students were confident in their ability to use the systems, the communications were made easy, and these systems influenced the improvement of learning process generally.

Khaddash and AL-Hadrami (2006) conducted a study with the objective of recognizing the impact of using Blackboard in the subject of accounting in order to evaluate its use and acceptance by students. The study sample was (70) students registered in accounting subject in the accounting department in the Hashemite University. The study conclusions revealed a high acceptance to use subjects prepared for the use of Blackboard, and that it has a positive impact on skills level. The study also revealed that the students faced certain difficulties such as the pressures on computer labs to use the subject and the repeated difficulties to electronically log in subject website. Alobiedat & Saraiherh (2010) conducted a study in order to explore the students' attitude towards the use of educational platforms in Granada University in Spain. The study sample included (258) of college students in the Faculty of Education. The study indicated that there are positive attitudes towards using education

platforms and there are other differences that may be attributed to students as a result of possessing technological means such as computers and the suitable access to the internet respectively.

Aljarrah (2011) performed a study on the attitudes of Jordanian University students joining the higher diploma program in information and communication technology in the faculty of education towards using the Blackboard in their education. The study sample was (365) students. The study attained some conclusions; the most important of which is that the study sample have positive attitudes towards using Blackboard in their learning as it helped students by facilitating learning process and increasing their participation and collection. The study concluded the importance of adopting such systems in learning and developing similar software to enhance educational efficiencies for students, and proceeding towards achieving effective electronic learning for all people in society.

Mazrou (2011) conducted a study aiming to verify the influence of activating LMS Blackboard. The study was conducted on the students registering in Economy 2 (202) as the first curriculum to be activated at the level of Administrative Sciences Faculty in King Khaled University. The study conclusions indicated a positive impact of eLearning on the students' academic achievement in this curriculum. It also limited students' absence in this curriculum. The study concluded the importance of continuous evaluation and development of LMS and the gradual transformation to eLearning. Alamro (2012) performed a study on the reality of using LMS Blackboard by students and faculty staff members in Education Technology Department, King Saud University. The study population were (20) students and (19) staff members. The study attained several conclusions; the most important of which are that the study population strongly agree that the characteristics of system components are very useful for flexible and effective communicating. The main disadvantages of the systems, from the point of view of students are that the staff members do not regularly follow the curriculum website. The study concluded that it is important to publish a digital manual for students on how to use Blackboard.

Alsadhan (2015) prepared a study to reveal the attitudes of students and faculty staff members in the faculty of Information and Computer in Imam Mohammed bin Saudi Islamic University towards using LMS Blackboard. The study sample were (533) student, the study conclusions revealed a positive attitude towards the system by the students as it amounted to (3.46). the study suggested several recommendations; the most important of which are spreading this experiment in all faculties in the University and providing continuous training for students on how to use the system. Alrandi & Abaekhil conducted a study in (2016) to recognize the extent to which LMS Blackboard is being used by students in the last year in the faculty of social sciences, Kuwait University, and how they benefit from the system, as well as the positive and negative aspects and the difficulties facing the users. The study population were (179) students. The study concluded that there are positive attitudes towards using the system and that the system is easy to use though there are some obstacles that may limit its use such as the system has phone application, lab computers are not efficient, and slow maintenance. The study recommended that it is imperative to provide support and maintenance, encourage students to use different functions in the system by granting them extra grades to motivate them to use it.

Umar & Almasaby (2017) conducted a study that aimed to recognize the influence of using Blackboard on developing the attitudes of Najran University Students towards e-Learning. The study included and purposive sample of (26) students. The study conclusions revealed that the attitudes of the students were neutral in pretest, positive in posttest, and that the Blackboard was effective in developing attitudes towards mobile eLearning. The study conclusions also identified some obstacles limiting Blackboard such as the difficulty to transfer and download big files on smart devices, and the difficulty to upload files to the curriculum website.

Alqahtani & Alturki (2018) carried out a study to measure the perceptions of higher studies students at the Faculty of Education, King Saud University towards the usefulness and easiness of LMS Blackboard, and the relation between these perceptions and using the elements of the Blackboard. The study concluded that there is an agreement among study sample regarding the existence of a relation between the perception of higher studies students regarding the usefulness and easiness of LMS Blackboard. The study recommended the importance of training the students on how to use the system, and explore their opinions about the main problems facing them when using LMS Blackboard.

Alshehri (2018) conducted a study with the objective of knowing the reality of using LMS Blackboard by students and English teachers at the Faculty of Education at King Khaled University. The study sample were (51) students in General Diploma Program in the Faculty of Education. The study concluded that students are always using announcements, alerts, curriculum contents and grades. Whereas they use averagely description-informing, design, curriculum terms, and informing of the details of curriculum teacher, forum participation, performing electronic tests, and sending and receiving messages. The conclusions also revealed that students rarely use blogging, dairies, calendar and address book. Uziak et al (2018) carried out a study to explore the opinions of students and trainers towards the use of Blackboard to present a curriculum in mechanical engineering in Botswana University. The study conclusions indicated that students were generally comfortable to use the Blackboard and it helped to improve their communication with other trainers in general. The study recommended that this system should be used in other curricula.

Kassem (2018) conducted a study on the adoption of Blackboard as an LMS system in English Department at Prince Sattam bin Abdul Aziz University, Kingdom of Saudi Arabia. The study aimed to explore the influence of using Blackboard as an interactive environment on students' writing skills in English Major. The study sample were (30) students in writing curriculum in English major, level 5. The study concluded that there is a positive influence of using Blackboard in developing writing skills in English Major, and the students have a positive attitude towards using Blackboard in learning process. The study recommended that it is important that the university continue to encourage the use of Blackboard, conduct other studies to investigate the impact of using Blackboard.

Binyamin et al (2019) carried out a study that aimed to investigate the factors influencing students using LMSs in higher education institutions. The study sample were (833) of students registering in three Saudi public universities. The study revealed that the perception of the ease of use based on Technology Acceptance Model (TAM) is influenced by six factors as follows: content quality, ease to move through the system, easy access, interactivity, educational measurement, and learning system. The study revealed that the expected benefit is affected by five parameters i.e. content quality, educational support, interactivity through the system, educational measurement and perception of ease-to-use.

Ebrahim (2019) conducted a study with the objective of exploring the readiness to accept the change to adopt LMS Blackboard in Prince Sattam bin Abdul Aziz University in the Kingdom of Saudi Arabia. The study focused on three variables; readiness to accept the change, change of beliefs and change resistance. The study sample were (340) of students and faculty staff members in the university, the study conclusions indicated that the readiness or acceptance of change is a multidimensional variable affected by several factors such as content, change of beliefs, individual difference and resisting change. The conclusions suggested that the investigated sample were aware of change benefit and their beliefs were strong, but they lack readiness to change. Gharawy (2019) carried out a study on the acceptance of public employees in the Kingdom of Saudi Arabia to e-training provided by the IPA through Ethrai Platform. The random sampling consisted of (4494) public employees. The study concluded that there are two factors who have direct impact on using e-training i.e. incentives and usage behavior. There is an indirect influence for a number of factors such as external influence, content quality, technical support, and ease of access. The study recommended that it is important that the government agencies should raise the employees' efficiency to use computer, continue to raise the quality level of electronically submitted content, continue to provide technical support, and make employees aware of the importance of e-training in general.

Section 3: Methodological Procedures of the Study

Study Methodology

The study adopted the analytical descriptive approach. This approach is suitable for such studies as it attends to tendencies, desires and attitudes in a way that gives a clear picture of real life, designing indicators and establishing forecasts (Mahjoub 2017). The previous literature on study theme were explored, the opinions of a relative stratified random sampling of students in the preparatory programs were examined in order to be familiar with their tendencies towards LMS Blackboard in the Institute of Public Administration, its influence on training and the main obstacles limiting its use.

Study Population and Sample

The study population is all students in preparatory programs directed to high school graduates at the Institute of Public Administration's headquarters in Riyadh in the second term of the academic year 2018/2019. The number of those students is (745) studying in nine main programs. To identify sample size, Krejcie and Morgan equation was used (Abdulrahman, 2013). The equation resulted in a minimum sample size amounting to (254) students. To select students participating in the study, the relative stratified random sampling was adopted as a random sampling method where subjects are distributes on layers (programs) according to the layer representation ratio. The next equation explains how to specify the sample size for each program (Daniel, 2016): sample size from layer = total sample size \times layer size / population size as illustrated in the following table.

Table 1: Study Sample and Population

	Program	Number of students	Required sample size
1	Accounting	147	50
2	Human Resources Management	128	44
3	Banking Businesses	90	31
4	Marketing and Sales	11	4
5	Materials Management	80	27
6	Hospital Administration	114	39
7	Executive Secretary	73	25
8	Computer Networks	60	20
9	Computer Programming	42	14
	Total	745	254

As per the relative stratified sampling, the questionnaires were sent to students. Number of retrieved questionnaires amounted to (162) at the rate of (64%), (4) of them were excluded due to uncomplete answers. Thus, the number of complete questionnaires valid for statistical analysis is (158) representing (62%) of all distributed questionnaires.

Data Collection Tool

The researcher adopted the survey method as a data collection tool. The questionnaire consisted of three sections. To verify the validity of the tool, it was submitted to six arbitrators from the IPA in order to identify the suitability of questionnaire variables. The stability test was verified by distributing the questionnaire to a random sample of (14) students registering the Executive Secretary program. Pearson Correlation Coefficient was identified and its degrees ranged between (0.56) and (0.96) at significance level (0.01). Reliability for each dimension of study's five dimensions was calculated as per their hypotheses using Cronbach's coefficient alpha. It is evident from table (2) that study tool reliability coefficient (Cronbach's coefficient alpha) ranges between (0.81 – 0.87) for study dimensions, and (0.84) for all study variables. It is clear based on Cronbach's coefficient alpha that all

values are greater than the minimum value valid for verifying measure reliability i.e. (0.70) (Sekaran and Bougie, 2016).

Table 2: Study Tool Reliability Coefficient

Dimension		Number of statements	Cronbach's coefficient alpha
First	Individuals	3	0.86
Second	User satisfaction	5	0.83
Third	System response to variables	4	0.82
Fourth	Organizational environment	3	0.87
Fifth	System safety and security	3	0.84
Sixths (Dependent Variable)	Effect on training	20	0.81
Total Variables		38	0.84

Study Data Analysis

The study adopted several statistical methods using SPSS (ver. 25) as the descriptive statistics styles (frequencies and ratios) were used in order to identify the attitudes of study sample. The Linear regression equation was adopted to test study hypotheses in order to recognize the influence of LMS Blackboard on training at the Institute of Public Administration from the points of view of students according to the study hypotheses related to individuals working on the system, user satisfaction, its response to emerging developments, availability of organizational environment, and availability of safety and security in the system.

Section 4: Field Study Conclusions and Recommendations

First: Students' Attitudes towards LMS Blackboard

To answer the first questions the study poses, "What are the attitudes of preparatory programs students at the Institute of Public Administration towards using LMS Blackboard in training process?", the researcher specified, as per the theoretical framework of the study, (38) variables through which the most important attitudes of study sample towards LMS Blackboard in training process can be identified. The researcher asked the subjects to identify their attitudes according to Likert Scale Quintet; strongly agree (5), agree (4), NA (3) disagree (2), strongly disagree (1). To interpret study sample responses, the researcher calculated the range $1=(4 - 5)$, then it was divided on the number of measure cells to get the right length of the cell $0.8 = (5/4)$, and then the cell length was added to the lowest value of the measure (1). The results are shown in the following table.

Table 3: Interpreting Mean Response of Study Sample

Mean	Interpretation
1-1.80	Strongly disagree
1.81-2.60	Disagree
2.61-3.40	NA
3.41-4.20	Agree
4.42-5	Strongly Agree

To verify the attitudes of study sample towards LMS Blackboard, the arithmetical mean and standard deviation were calculated as shown in the following table.

Table 4: Study Sample Attitudes towards LMS Blackboard

N	Variable	(M)	Std. Dv	Agreement point	order
1	Individuals supervising the system are highly qualified	3.65	1.101	Agree	34
2	I possess the ability to use and handle Blackboard	3.80	1.006	Agree	25
3	I am satisfied with the performance of those supervising Blackboard	4.11	0.968	Agree	12
4	Blackboard is easy to use	4.31	0.843	Strongly Agree	1
5	The system includes all training activities	3.45	1.165	Agree	38
6	I rely greatly on the system for training process	3.68	1.188	Agree	32
7	The system provides a wide space online to accomplish required training activities	3.93	0.997	Agree	22
8	I am generally satisfied with the Blackboard	3.73	1.234	Agree	28
9	The system provides information despite the diversity and increase of training activities at the Institute	4.04	0.816	Agree	17
10	The system includes accurate and documented data despite their diversity and recency as per training activities	3.69	1.076	Agree	30
11	The Institute provides advanced hardware and software that help using the system accurately and quickly	4.20	3.175	Agree	6
12	The system does not suffer technical problems while in use	3.65	1.094	Agree	35
13	There is a huge support from the Institute's Management to use Blackboard in training	3.69	0.803	Agree	31
14	The organizational environment at the Institute encourages dependence on Blackboard in training	3.88	0.816	Agree	24
15	The Institute's faculty staff members encourage using the system	3.92	0.913	Agree	23
16	The Institute provides enough protection for hardware and software of Blackboard	3.80	1.125	Agree	26
17	The Institute implements sanctions on those who violate using Blackboard	3.72	0.944	Agree	29
18	Blackboard is highly efficient in organising and managing data and information related to training	3.79	1.479	Agree	27
19	The system helps continuous communication with the trainer	4.18	0.682	Agree	7
20	The system helps continuous communication between the students	4.01	0.662	Agree	18
21	The system helps to manage and invest in time	3.65	1.077	Agree	36
22	The system helps to do assignments online	4.05	0.962	Agree	16
23	The system helps to do tests online	4.08	0.613	Agree	13
24	The system encourages to try other platforms for training and learning	4.16	0.718	Agree	10
25	The system provides the suitable training content	4.00	1.022	Agree	19
26	The system includes several training activities	3.97	0.840	Agree	21
27	The system provides additional training resources	4.22	0.921	Strongly agree	4
28	Blackboard provides engaging training	3.98	1.055	Agree	20
29	The system includes updated content	3.68	0.966	Agree	33
30	The system includes diversified and recent training styles	4.07	0.978	Agree	14
31	The system enhances self-training	4.23	0.747	Strongly agree	3
32	The system helps to increase collection level	3.58	1.331	Agree	37
33	The system helps to facilitate training process	4.17	0.815	Agree	9
34	The system is an important means for training in the future	4.21	0.944	Strongly agree	5
35	The system helps lifelong training	4.13	0.754	Agree	11
36	The system achieves economical saving for students	4.18	0.761	Agree	8
37	The system promotes trainee's self confidence while training	4.25	0.593	Strongly agree	2
38	The system helps to document training process	4.06	1.001	Agree	15
Total		3.94	1.005	Agree	

The above-mentioned table presents the attitudes of study sample towards LMS Blackboard. The table shows that the variable "Blackboard is easy to use" has the highest mean as it reached (4.31), whereas the variable "the system includes all training activities" has the lowest mean as it amounts to (3.45). According to the average measure adopted in this study, it is clear that all variables have

arithmetical means more than (3.41) indicating (agree) and (strongly agree). The table also shows that the total means of study sample attitudes were (3.94) which indicates that the students in the preparatory programs agree to LMS. The table also illustrates that the highest five variables, indicating (strongly agree) by students (<4.21) regarding LMS Blackboard were as follows: Blackboard is easy to use (4.31), the system enhances trainee's self confidence in training (4.25), the system promote self-training (4.23), the system provides additional training resources (4.22), and the system is considered an important training methods for the future (4.21).

Second: The Influence of LMS Blackboard on Training from the Points of View of Preparatory Programs Students

To answer the second question of the study, "What is the influence of using LMS Blackboard on training from the points of view of preparatory programs students?", the following study hypotheses were tested as follows:

Table 5: Results of Linear Regression Equation

Correlation	β	T	R	R²	F	Sig
The influence of individuals working in the LMS Blackboard in training	0.159	2.01	0.159	0.03	4.05	0.046
The influence of users' satisfaction with LMS Blackboard in training	0.194	2.46	0.194	0.04	6.08	0.015
The influence of the response of LMS Blackboard to emerging developments in training	0.184	2.34	0.184	0.34	5.49	0.02
The influence of the organizational environment where LMS Blackboard is functioning in training	0.057	4.68	0.057	0.003	0.514	0.474
The influence of safety and security of LMS Blackboard in training	0.029	3.13	0.029	0.001	0.130	0.719

Hypotheses 1: There is a statistically significant influence at the significance level ($\alpha \geq 0.05$) regarding individuals supervising LMS Blackboard. To test this hypothesis, table (5) shows the existence of a statistically significant influence at the significance level ($\alpha = 0.05$) regarding individuals supervising LMS Blackboard as it reached the values (R², R, T, β) (0.03, 0.159, 2.01, 0.159) respectively. These values are statistically significant values; hence, the first hypothesis can be accepted. Hypothesis 2: There is a statistically significant influence at the significance level ($\alpha \geq 0.05$) regarding satisfaction of LMS Blackboard users for training. To test this hypothesis, Table (5) shows the existence of a statistically significant influence at the significance level ($\alpha = 0.05$) regarding satisfaction of LMS Blackboard users for training as it reached the values (R², R, T, β) (0.04, 0.194, 2.46, 0.194) respectively. These values are statistically significant values; hence, the first hypothesis can be accepted too.

Hypothesis 3: There is a statistically significant influence at the significance level ($\alpha \geq 0.05$) regarding the response of LMS Blackboard to emerging developments in training. To test this hypothesis, table (5) shows the existence of a statistically significant influence at the significance level ($\alpha = 0.05$) regarding the response of LMS Blackboard to emerging developments in training as it reached the values (R², R, T, β) (0.034, 0.184, 2.34, 0.84) respectively. These values are statistically significant values; hence, the first hypothesis can be accepted. Hypothesis 4: There is a statistically significant influence at the significance level ($\alpha \geq 0.05$) regarding the organizational environment where LMS Blackboard is functioning in training. To test this hypothesis, table (5) shows the existence of a statistically significant influence at the significance level ($\alpha = 0.05$) regarding the organizational environment where LMS Blackboard is functioning in training as it reached the values (R², R, T, β) (0.003, 0.057, 4.68, 0.57) respectively. These values are statistically insignificant values; hence, the first hypothesis can't be accepted. Hypothesis 5: There is a statistically significant influence at the significance level ($\alpha \geq 0.05$) regarding safety and security of LMS Blackboard in training. To test this hypothesis, table (5) shows the existence of a statistically significant influence at the significance level ($\alpha = 0.05$) regarding safety and security of LMS Blackboard in training as it reached the values (R², R,

T, β) (0.001, 0.029, 3.13, 0.029) respectively. These values are statistically insignificant values; hence, the first hypothesis can't be accepted.

Third: The Main Obstacles Limiting the Use of LMS Blackboard in Training

To answer the third study question; "What are the main obstacles limiting the use of LMS Blackboard in training from the viewpoint of students?", the study questionnaire included an open question with the objective of identifying the points of view of study sample regarding the main obstacles. After exploring the points of view of students, the main obstacles were summarised as follows:

1. Unavailability of suitable training for students to use LMS Blackboard.
2. Insufficient time for students to train on LMS Blackboard.
3. Unavailability of suitable communication means to provide technical support for LMS Blackboard.
4. There are no specific offices where students can go to benefit from LMS Blackboard.
5. Students lack the awareness regarding using LMS Blackboard at the Institute.
6. There is no obligation to use LMS Blackboard in all training subjects and curriculum in preparatory programs.
7. Lack of optimal direction from trainers regarding using LMS Blackboard.
8. The faculty staff members are not specialized in LMS Blackboard.
9. There is no suitable measurement to measure the influence of using LMS Blackboard by students in the preparatory programs.
10. Limited direct interaction between trainer and trainees through LMS Blackboard which limits the efficient use of the system.
11. There are no specialized labs that are configured to use LMS Blackboard.
12. Lack of follow regarding the use of LMS Blackboard by the faculty staff members.
13. Lack of communication and follow up to use LMS Blackboard by the system supervisors.
14. Limitedness of training content in some training curricula, and the faculty staff members do not update it regularly.
15. Instructions and requirements to use LMS Blackboard are not explained clearly.
16. The system is limited to subject plans, training curricula, and presentations in some training subjects and curricula.

Fourth: Characteristics of Study Sample

To recognize the characteristics of study sample regarding total usage of LMS Blackboard on a weekly basis, the academic level of students and the language used in the program, the following becomes clear:

Table 6: frequencies and proportions of the characteristics of study sample

Variable		Frequency	%
Weekly usage numbers	Once a week	33	20.9
	2 – 3 times a week	97	61.4
	More than (4) times a week	28	17.7
	Total	158	100
Academic Level	First	57	36.1
	Second	61	38.6
	Third	40	25.3
	Total	158	100
Used Language	Arabic	59	37.3
	English	86	54.4
	Both Languages	13	8.3
	Total	158	100

The above-mentioned table (6) indicates that (61%) of study sample use the system 2 – 3 times a week, and (21%) use it once a week, whereas (18%) use the system more than four times a week. The table also shows that (37%) of subjects are in the second level of preparatory programs, followed by (35%) who are in the first level, whereas (25%) of them are in the third level. The table illustrates that more than half of the sample (54%) indicated that the English language is the language used in LMS Blackboard, and (37%) of the sample use the system in Arabic language, whereas (8%) of them use the system in both Arabic and English.

Fifth: Conclusion and Recommendation

This study aimed to identify the attitudes of preparatory programs students at the Institute of Public Administration towards the use of LMS and its influence on training. It also aimed to recognize the main obstacles that limit the use of the system, and the main suggestions that may contribute in its implantation. Through the presentation of study data and conclusions, the most important recommendations and conclusions can be summarized as follows:

- There are positive attitudes for preparatory programs students towards LMS Blackboard, as all students' attitudes tend to agree on the importance of LMS Blackboard and its influence on training.
- The most students' attitudes that tend to strongly agree on the LMS Blackboard are represented in the system being easy to use, it enhances the student's self confidence in the training process, it promotes self-training, it provides additional training resources, and it is considered an important training means for the future.
- The individuals supervising the LMS, the users' satisfaction regarding the system and the system's response to emerging developments are the factors that have statistically significant influence on using the system for training depending on the viewpoints of the students, whereas the individuals provide help and support to students, and the students found the system response to emerging developments to be helpful.
- The organizational environment where the system is functioning and the availability of safety and security of the LMS Blackboard have no statistically significant influence on training from the points of view of students.
- There are several obstacles that limit using LMS such as lack of suitable training and enough time for training, the unavailability of clear communication means to provide technical support for the system, students lack the awareness regarding using the system, no obligations to use the system, lack of direction and guidance from the trainers, and lack of follow-up and measurement to measure the influence of using LMS Blackboard in training.
- The usage of LMS Blackboard by the students in the preparatory programs at the Institute is suitable as they use it 2 – 3 times a week. More than half study sample use the system in English language; something which may support implementing all programs at the Institute in the English language.

Based on the most important previous conclusions, the study may propose the following recommendations:

- Students should be trained to use the LMS Blackboard in different methods especially through different training and learning media.
- Obligation to use LMS Blackboard in all preparatory programs.
- Faculty staff members and students should be educated on the importance of using LMS Blackboard, its role and influence on training process.
- The Institute should continue to provide all LMS Blackboard requirements whether modern hardware or software.
- The Institute should expand the implementation of LMS Blackboard in all training activities.

- Faculty staff members and students should be encouraged to use LMS Blackboard by providing different moral and material incentives.
- Usage of LMS Blackboard should be followed up on regular basis in a way that enables to solve the problems facing it and benefit from it optimally.
- To benefit from different experiments and practices of LMS Blackboard in different educational and training institutions in KSA and abroad in order to develop its use at the Institute.
- The Institute should establish a role model in implementing LMS Blackboard in the preparatory programs to use and benefit from it efficiently. This will achieve economic savings and flexibility in implementing training process.

Sixth: Future Studies

In the light of the attained study conclusions and recommendations, the researcher suggests the following future studies:

1. Studying the attitudes of faculty staff members towards the implementation of LMS Blackboard at the Institute.
2. Studying the requirements to implement LMS Blackboard at the Institute.
3. A comparative study between the implementation of LMS Blackboard at the IPA and other educational and training institutions inside and outside the KSA.
4. Studying the main parameters to implement LMS Blackboard from the points of view of faculty staff members and students in the preparatory programs.
5. Studying the influence of implanting LMS Blackboard on the performance of faculty staff members at the Institute.

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