

## Attitudes of Faculty Members and Students towards the Use of the Learning Management System in Teaching and Learning

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### ABSTRACT

This study aimed to identify the attitudes of university faculty members and students towards the use of the Learning Management System (LMS) in teaching and learning. The descriptive analytical approach was used, and the data were collected using two different tools constructed by the researchers. The first is related to the attitudes of faculty members towards the use of the Learning Management System in teaching, and the other is linked to the students' attitudes towards using the Learning Management System in learning. The sample included 95 university faculty members and 307 students. Calculation Means, standard deviations and ANOVA were calculated. The study revealed that the attitudes of university faculty members and students towards using the Learning Management System in teaching and learning were positive. The results showed statistically significant differences in the attitudes of university faculty members due to gender and in favor of the males. The results did not show significant statistical differences due to the faculty members' experience and the academic track. The results also indicated that there were no statistically significant differences in students' attitudes towards using the Learning Management System in learning due to their gender. Nonetheless, the results indicated that there were statistically significant differences in students' attitudes due to the academic year and for the first-year students. The positive attitudes were decreasing as the years gradually progressed. The results also evidenced differences of statistical significance in students' attitudes towards the Learning Management System attributed to the academic track and for the benefit of applied and humanities studies and then the medical track and finally the engineering track. In the light of these findings, the researchers recommended intensive training of university faculty members and students in the employment of the Learning Management System in an optimal way to increase its effectiveness in teaching and learning. They also pressed the need for conducting further studies on the impediments facing the parties in the use of the Learning Management System and revealing the ways to solve them.

**KEYWORDS:** Learning Management System, Attitudes, Faculty Members, University Students, Higher Education, Teaching and Learning.

### INTRODUCTION

In recent years, universities around the world have become increasingly interested in e-learning to meet the growing student population, provide a broad and fast information base, and open up other areas of communication between students and faculty teachers on the one hand and among students themselves on the other hand (Khaddash and Al-Hadhrami, 2006). It is worth mentioning that the information and technological revolution that shook the whole world entered the university teaching via the widest doors, and imposed itself on all parties of the educational learning process. This fact led the Department of Higher Education to implement e-learning and consider it as an ultimate priority to save time and effort despite the high cost and necessary infrastructure required for this operation (Al-Mutairi, 2015; Aljarrah, 2011).

If there is a real desire on the part of students and faculty members concerned with employing technology in university classrooms, this will have a positive impact on transforming university education from tradition, simulation and retreat to creativity and development. This endeavor will also allow them to respond to the requirements of the present age through gaining speed and openness to other cultures.

As has been noticed for many years, there have been constant calls for the use of technology in higher education. This led most universities to embark on using technological software both in the classroom and in the administration Balta & Duran (2015). The rationale behind this undertaking lies in promoting the efficiency of university teaching, ensuring its flexibility and linking it to the reality in which students live. One such software

is the Learning Management System (LMS) (Jayson, 2006). The Learning Management System allows learners to communicate and interact with their teachers in order to work together in a new and enjoyable way. It helps educational institutions transform the Internet into a strong medium in the process of teaching and learning (Aljarrah, 2011).

The results of many studies (Khaddash and Al-Hadhrami, 2006; Al-Mutairi, 2015; Alqadere, 2011; Mashaqbeh, 2009) indicate the effectiveness of using the Learning Management System in university teaching as a modern electronic system with several programs that improve the efficiency of university teachers and help them cope with the course and the sources of self-learning as well as to manage the discussion among students themselves. This is confirmed by the results of the study conducted by Bowdoin College (2005) that more than 61% of the students indicated the usefulness of using the Learning Management System software as it increases the opportunities to learn and interact with the subjects and with teachers as well as among themselves.

Duke University students also believed that the Learning Management System software facilitated their access to the prescribed programs (Belanger, 2004). Similarly, Aljarrah (2011) suggested that the use of software programs such as the Learning Management System spawned positive attitudes among learners and increased their achievement and thrill.

Abdulrahman Bin Faisal University in Saudi Arabia adopted the software Learning Management System and encouraged faculty members to activate the elaboration of their educational materials and make them compatible with this software for both male and female students. Teachers encourage students to use the Learning Management System by putting learning materials on the software. They also provide assignments, correct them, provide feedback, and encourage effective discussions with students. In order to highlight the role of the use of the Learning Management System, it was necessary to know the attitudes of students and faculty members towards the use of this software.

Learning Management System Software has a range of functions that make it a concrete and efficient tool in university education.

1- Providing tools for interaction: These are the tools that learners interact with during their study, and they are summarized as follows:

- Announcements: This tool provides students with the latest news or announcements that a faculty member wants to send to learners or to a group of them and review their content either alphabetically or historically by simply clicking on the icon.
- Timetable: This tool informs students about the timing of events related to the subject of learning and alerts them in time, such as lectures and meetings on the network or face-to-face meetings in the university, etc., and learners can add the events they want.
- Tasks: They tell students what tasks they should perform and allow them to organize those tasks according to the subject or to their personal vision. The teacher can send any learner a task that he does not send to the others.
- Estimates: This task is concerned with the student's assessments, whether in the intermediate or final tests.
- User Guide: This tool works to create a guide for students' participating in the course to get to know each other.
- Address book: It is a personal notebook for the student to put data about the person who wants to communicate with him through the system. It may contain hundreds of students, but the address book contains the addresses added by the student himself.

2. Presentation of content: The basic function of the educational materials delivery system is to provide the content of the educational material to the learners. In this regard, the Learning Management System offers the content display function within the Course Content Option. When the student selects this function, the system will review the content in the following images:

- Display textual information accompanied by pictures, animations and other elements organized according to the required educational organization.
- Documents and files related to the decision.
- Books and references available on the network or recommended by the teacher to read them.
- Links to important sites.

3. Communication function: The system provides three ways to communicate between students and among students and teachers as follows:

- Sending and receiving mailings: This provides a directory of students' names and addresses.
- Discussion Board: Also called Bulletin Board, is an asynchronous interactive tool where the student can express his opinion on any issue or ask a question to be reviewed by peers later.
- Virtual Classroom: This represents the network meeting system used by the software. This system allows the learner to interact with his / her colleagues and teachers in a similar way to the virtual classroom through the Chat Panel dialog box which enables the learner to write what he wants via the keyboard and to see everyone who connects to the meeting system currently. It also provides a whiteboard-like graphic board and transfers texts, images and graphics to the learner or teacher.

### **LEARNING MANAGEMENT SYSTEM CHARACTERISTICS**

Some researchers (Tekinarıslan, 2009; Bradford. et.al, 2007; Balta & Duran, 2015) point out that the Learning Management System is characterized by a number of features:

- Easy access: This code allows users to communicate with what it contains by simply connecting with the Internet at any time and place.
- Providing fast and continuous feedback: This program provides updated feedback on the course, students, test dates, results, and everything related to the student's program and questions.
- Facilitating and improving communication: This program provides several options for students and teachers to connect such as announcements, discussions, virtual classes, e-mail.... etc.
- Follow-up: The teacher can track students' use of the software and delivery of assignments through the availability of a statistical file of all the assigned activities.
- Skills development: This software promotes many skills for learners such as good time management.
- Taking account of differences among students: This program provides several options to provide content, including audio, video, animation, images, games and others, which work to take into account individual differences between students and their various intelligence quotients.

### **STATEMENT OF THE PROBLEM**

lthough the age of Abdulrahman Bin Faisal University did not exceed six years, it adopted the use of e-learning and software programs in the management of learning such as the Learning Management System program. In addition, the university has spent large amounts of money on these projects. The two researchers of this article were aware of the methods of teaching used by some faculty members at Abdulrahman Bin Faisal University, and they kept in contact with the students through the lectures they were teaching. We remarked that there were some proponents and opponents of the idea of e-learning using the Learning Management System in teaching among students and teachers. We find a discrepancy in the attitudes towards the application of the Learning Management System in university teaching. Specifically, there are those oppose to some of the parts of the Learning Management System and agree on its other parts. This results in turmoil at the level of the administration and officials whether to keep or dispense with the Learning Management System and replace it by another software. The study aims to identify the attitudes of faculty members and students towards the use of the Learning Management System in university teaching. It is hoped that the results of this study will provide data and information to help decision-makers in taking necessary actions for general public interest.

### **RESEARCH QUESTIONS**

This study attempted to answer the following questions:

1. What are the attitudes of faculty members at Abdulrahman Bin Faisal University towards the use of the Learning Management System in their teaching?
2. What are the attitudes of students at Abdulrahman Bin Faisal University towards the use of the Learning Management System in their learning?
3. Do the attitudes of faculty members differ about the use of the Learning Management System in their teaching according to gender, academic track, and experience?
4. Do students' attitudes towards the use of the Learning Management System in learning differ in terms of gender, academic level, and academic track?

### **AIMS OF THE STUDY**

The aim of the study was to examine the attitudes of faculty members and students at Abdulrahman Bin Faisal University towards the use of the Learning Management System in teaching and learning.

### **IMPORTANCE OF THE STUDY**

The importance of this study lies in the fact that it is related to a modern education system: the Learning Management System. Abdulrahman Bin Faisal University adopted this program and considered its use mandatory as an official Means of communication by teachers and students. The importance of this study stems from the declarations of the decision makers and university administrators relative to the feasibility of e-learning

via the Learning Management System software in exchange for the university's payment of funds for developing and updating this software or replacing it by another system for the public interest.

### **OPERATIONAL DEFINITION**

**Attitudes:** A state of mental readiness of students and faculty members organized through their previous experiences on their convictions of the effectiveness of the use of the Learning Management System in teaching.

**Abdulrahman Bin Faisal University:** It is a public university located in the eastern part of the Kingdom of Saudi Arabia, Dammam. It includes several scientific and literary colleges. It offers a Bachelor's degree, a Higher Diploma, a Master's Degree and PhD in some Departments.

**Learning Management System:** It is an electronic system that allows teachers to present the scientific material electronically and students to discuss through the electronic forum, and communicate with each other, as well as communicate with their teachers, and download some pictures and videos that facilitate understanding of the scientific material.

### **LIMITS OF THE STUDY**

1. This study was limited to three tracks from Abdulrahman Bin Faisal University: (Engineering, Health, and Applied and Humanities studies).
2. This study was limited to the second semester of the academic year 2016/2017.
3. The results of the study are determined by the degree of validity and reliability of the research tools employed in this article.

### **PREVIOUS STUDIES**

When reviewing the theoretical literature on e-learning and the use of the Learning Management System software in university education, we noticed that it was focused on students' attitudes towards using this software in the management of the teaching/learning process. The literature was also axed on the services that are used to facilitate learning and solve the problems facing the educational process whether temporally and spatially. It also dealt with the level of subjects' satisfaction with its application in university teaching.

Alblassi (2016) study aimed to identify teachers' attitudes towards the use of the Learning Management System in the academic year 2015/2016. The descriptive method was used. A trend scale of 32 points was applied according to the Likert quintile scale and was applied to a sample of 82 faculty members. The results indicated positive trends among faculty members at Hail University towards the Learning Management System although it was not sufficiently activated. The results showed that there were no statistically significant differences between faculty members pertaining to the faculty or staff gender.

AlShamary (2016) study aimed to identify the reality of using the Learning Management System by the faculty members at Hail University. The sample consisted of 284 teaching staff members who were randomly selected. The researchers sought to measure the extent of using the Learning Management System by the faculty members and the impediments that faced them. The results showed that the use of faculty members of the Learning Management System was high, and the results did not show any significant statistical differences due to the college variable or the academic rank in their use of the Learning Management System in teaching.

The study of Aljarrah (2011) attempted to identify the attitudes of the students of the University of Jordan towards the use of software Learning Management System in learning. 365 subjects were enrolled in the program of the Diploma in Information Technology and Communication in Education. The data was collected using a Likert Quintile Scale prepared by the researchers to this end. The tool consisted of 40 items. The results of the study showed that there were positive attitudes among the study subjects towards using Learning Management System software in learning as it increased their classroom participation and high achievement. The results indicated that the use of the Learning Management System software facilitated the teaching process and helped to provide distance learning opportunities for those interested. Based on these results, the researchers presented a set of recommendations, the most important of which is the adoption of this software or a similar one in all Jordanian universities.

As the Learning Management System software is an electronic tool that can be used in teaching, Alqadere (2013) studied the effect of teaching physics through the Learning Management System software on the achievement of the third-year students of the Physics Department at Al-Bayt University for the concepts of scientific electronics. The students were divided into two groups: one experimental and one control. The control group was taught in the traditional way, and the experimental group was taught electronically using the Internet for a full semester. The data were collected using an achievement test on some specific concepts after ascertaining its validity and reliability. The results showed a statistically significant difference between the group that studied in a traditional

way and the group that studied electronically through the Internet in favor of the students who studied the course electronically via the Internet.

Khadash and Al-Hadrami (2006) studied the effectiveness of teaching the principles of accounting using educational materials based on the information network according to the Learning Management System software, where the educational material was prepared and presented electronically. The study sample included seventy students from the Hashemite University during the summer semester 2003/2004. A questionnaire was prepared to measure the effectiveness of teaching through the Learning Management System. The results of the study revealed high acceptance among the students to use the educational materials electronically. This use has had a positive effect on the level of skills and educational benefit gained by the students. The results have also shown that there are some technical difficulties that have emerged as a result of dealing with electronic educational materials.

Al-Zawaidi (2014) conducted a study to examine the extent to which social networking software is used in accordance with the project-based learning strategy and its impact on high and low achievers and motivation in learning with the Learning Management System. The results of the study indicated that there are statistically significant differences at the level of ( $\alpha = 0.01$ ) and in favor of the trend towards learning through the Learning Management System. The researcher explained the reason for this by the students' access to different websites, a fact that prompted them to use new educational skills to facilitate the interaction with their instructor as well as their peers.

The study of Al-Saeed (2014) investigated the impact of a distance training program using the Learning Management System Collaborate in developing the teaching skills of social sciences teachers in Kuwait. Several results were reached, notably significant statistical differences: ( $\alpha = 0.05$ ) between the Mean scores of the sample of the study sample on the identification of teaching skills before and during the training period and in favor of the post questionnaire. The researcher attributed this result to the impact of the training program when using the Learning Management System Collaborate system in improving the performance of social sciences teachers in Kuwait. The researcher recommended that educators in Kuwait should be sensitized to the importance and effectiveness of distance training using the virtual classroom system.

Mashaqbeh (2009) conducted a study that aimed at surveying students' views on Learning Management System software as a Means of assisting in the educational process and its correlation with some variables. The study covered the computer course and architecture course at Al-Bayt University. The results showed that there were no statistically significant differences between the students' opinions related to the gender variable, the school year, the type of course or the previous experience, and that most students felt pleasure while using the system. Nevertheless, the results showed that the students encountered other impediments such as the lack of clarity of evaluation methods used in the course and that the ways to communicate with students by the teacher was insufficient.

In Al-Mutairi (2015) carried out a study on the effectiveness of an electronic training program using a screen recording method to acquire some of the skills of the e-learning management system Learning Management System in the LRC's secretaries where the study sample was divided into two groups: control and experimental groups. An achievement test was conducted to measure the collection of learning resource centers' secretaries for the knowledge aspects associated with the Learning Management System and a note card to measure the skillful side of LRC secretaries. The results showed that there were statistically significant differences at the level of ( $\alpha = 0.01$ ) between the control group and the experimental group and for the benefit of the experimental group. The results indicated that the electronic training program was effective and had a positive effect on skill development compared to the traditional method.

Mzrou. et al. (2013) prepared a study aiming at identifying the attitudes of faculty members at King Khalid University towards the use of the electronic learning department Learning Management System. Six colleges were selected at King Khalid University including 195 teachers. The use of the Learning Management System was found to be of medium degree, and there were statistical significance differences for the benefit of the Faculty of Science, the difference in age and in favor of younger groups.

In Salloum's study (2011) which aimed to identify the degree of integration between the virtual classrooms and the system of e-learning Learning Management System, the researcher compared the different virtual classroom systems in terms of integration with e-learning management systems. The study showed several results, including the need to use virtual classroom techniques in e-learning in general and in the live broadcast of lectures and tutorials in particular because of the benefits of many of these programs. The virtual classrooms provide many solutions, especially in an environment similar to the situation in Saudi Arabia, where there are

great numbers of students who are not absorbed by universities, and the crowded traffic congestion in cities and the nature of education policy in the Kingdom which separates sexes from each other's. The use of virtual classes allowed teaching female students by male faculty members, thus solving the problem of non-availability of specialized faculty members of the same sex of the students.

Ayad (2008) conducted a study that aimed at employing virtual learning environments in the elaboration of electronic courses in the Learning Management System in university education. It examined students' satisfaction with using the Learning Management System in university education and training students to employ learning technology in the learning process. The results showed that there were no statistically significant differences between the students of the experimental and the control group. This is due to the fact that female students who studied in the traditional method used all the methods of modern technology in the study, and the traditional method was focusing on achievement.

**SUMMARY OF PREVIOUS STUDIES**

After studying the theoretical literature and previous studies, it was found that some studies dealt with the attitudes of students and faculty members towards the use of the Learning Management System in their teaching (Aljarah, 2011; Mzrou. et al., 2013; AlShamary, 2016; The effectiveness of the Learning Management System in university teaching and the views of students and their teachers on its use and e-learning in general and its effect on students' achievement and understanding of content as well as motivation (Alqadere, 1433; Al-Mutairi, 2015; Al-Saeed, 2014; Salloum, 2011; Khadash and Al-Hadrami, 2006). Most of the above studies have confirmed the usefulness of using the Learning Management System in university teaching for increasing students' achievement, understanding and motivation.

However, the studies of Mashaqbeh (2009) and Ayad (2008) did not reach differences of statistical significance between traditional education and e-learning through the Learning Management System. The results of Mashaqbeh (2009) showed that there are no statistically significant differences in the students' opinions regarding the Learning Management System due to the gender of the students, the academic year or the college to which they belong.

On the other hand, the study of Mzrou et al. (2013) indicated that the attitudes of King Saud University teachers towards the Learning Management System were medium and that there were differences of statistical significance attributed to the difference of the faculty of the teacher as well as age. The latter was in favor of the younger age. This is confirmed by the study of AlShamary (2016) that there are no differences of statistical significance attributed to the faculty and the scientific rank although the study found that the reality of the use of the Learning Management System by university teachers was high. This is what was confirmed again by the study of Alblassi (2016) which found that the attitudes of teachers were positive towards the Learning Management System although there were no differences of statistical significance for both the sex of the teacher and his faculty.

**METHOD AND PROCEDURES**

To achieve the objectives of the study, the researchers followed the descriptive analytical method.

**STUDY POPULATION**

The population of the study is composed of all faculty members and students at Abdulrahman Bin Faisal University for the academic year 2016/2017. The number of faculty members was (2103), and the number of students was (37324). The study sample was selected by Stratified Random Sampling from both sides according to the study variables. The results were analyzed in the light of the sample as shown in the following tables: (1), (2).

Table (1): Study sample of faculty members

	Variable	Number	%
Gender	M	49	51 %
	F	46	49 %
	Total	95	100%
Track	Engineering	27	28 %
	Health	28	30 %
	Applied Studies and Humanity	40	42 %
	Total	95	100%

Experience	1 – 4 Ys	30	31 %
	5 – 10 Ys	33	35 %
	More than 10 Ys	32	34 %
Total		95	100%

Table (1) shows that the study sample included 95 faculty members- 49 males and 46 females. They were distributed as follows: Science track: 28%, Health track: 30%, Applied and Humanities Sciences track (42%). Teachers' experiences were divided into three levels: Level one (1 - 4 years) includes 30 teachers out of 95 with 31%. Level two (5-10) includes (35%). Level three (more than 10 years) includes 34%.

Table (2): Study sample of students

	Variable	Number	%
Gender	M	177	58%
	F	130	42%
	Total	307	100%
Level	1 <sup>st</sup> Year	64	20%
	2 <sup>nd</sup> Year	85	28%
	3 <sup>rd</sup> Year	91	30%
	4 <sup>th</sup> Year	67	22%
	Total	307	100%
Track	Engineering	79	26%
	Health	117	38%
	Applied Studies and Humanity	111	36%
	Total	307	100%

Table (2) shows that the sample included 307 male and female students, of which 177 males and 130 females. They were distributed over the four years by 20%, 28%, 30% and 22%, respectively. They represent 26% from the science track, 38% from the health track, and 36% from the applied sciences track.

### RESEARCH INSTRUMENTATIONS

The two researchers reviewed the theoretical literature related to teaching and e-learning that employs the Learning Management System. They elaborated the research tools according to Likert Scale. The first tool aimed at measuring the attitudes of faculty members towards the use of the Learning Management System in teaching. The second tool aimed at measuring the attitudes of university students towards the use of Learning Management System in learning.

### VALIDATION OF THE INSTRUMENTS

To check the validity of the study tools, the initial version of the study was presented: the first of the faculty members consisting of 28 items on six experts who are members of the teaching staff at Abdulrahman Bin Faisal University. The student tool included 24 items and was also presented to the same experts. Some items of both instruments were deleted, and the wording of several items was amended. The number of items of the tool for students was 22, while the number of items of the tool for faculty members was 26 items. The latter was translated into English because some faculty members do not speak Arabic. It was also reviewed by a legal translator as well as some English teachers in the University.

### RELIABILITY OF THE INSTRUMENT

To calculate the reliability of the research tools, the researchers followed the method of test and retesting (Test - Retest) with a difference of a two-week time. The student tool was applied to a group of 43 male and female students, and the reliability coefficient was 0.84. In addition, the questionnaire was applied to the members of the faculty on a random sample of (32) members. The reliability factor (0.87) was considered acceptable in the social sciences (Obiedat et al., 2016; Al-Kellani; and Al-Shraifeen, 2011).

### RESULTS

To answer the question of the first study: "What are the attitudes of faculty members at Abdulrahman Bin Faisal University towards the use of the Learning Management System in their teaching?". The researchers calculated the Mean and the standard deviation of the instrument items prepared for this purpose, and the results were cast on Table (3).

Table (3): Means and SD for the faculty members (N=95)

No	Items	Mean	SD
Q1	I like to get more training on how to use Learning Management System (LMS)	4.22	.731
Q2	I asked for help from others in case I face a problem while I am using the LMS	4.00	1.04
Q3	I discuss my colleagues about how to use the LMS	3.98	.792
Q4	Using LMS contribute to clarify the content of scientific material	4.35	.834
Q5	LMS helps the learner to learn without coming to the university	3.71	1.15
Q6	I feel enjoyably when someone talking to me about the uses of LMS in teaching	3.94	.816
Q7	Using LMS Increase the interaction between teachers and students	4.33	.675
Q8	Using LMS provides interesting learning	4.13	.793
Q9	The learning by using the LMS will gradually replace the normal Education	3.65	1.22
Q10	Using LMS increase student's achievement	3.86	.929
Q11	Using LMS facilitate teacher's role	4.33	.591
Q12	Using LMS offers a great benefit in teaching	4.13	.820
Q13	LMS leads to a new change in the courses practices	3.84	.866
Q14	I expect that - in the future - the use of LMS has become a necessity for all teachers	4.26	.774
Q15	LMS helps the teacher to organize his courses	4.25	.699
Q16	I feel that the use of LMS develops the teaching process	4.22	.717
Q17	I see that LMS reduce the role of the teacher in the classroom and increase the role of the student	3.13	1.06
Q18	LMS makes it easy for teachers to provide students with individual learning environment	4.09	.669
Q19	LMS increase the capacity of the educational institutions	4.03	.706
Q20	LMS contribute in integrate the educational resources effectively	4.24	.725
Q21	LMS increase the flexibility in educational institutions systems	4.16	.724
Q22	LMS offers better results than the normal education	3.65	1.137
Q23	LMS helps to achieve the effective and active teaching	3.60	1.01
Q24	LMS helps to deliver the information to students quickly	4.11	.783
Q25	Learning by using LMS increases the chances for cooperation between educational institutions	4.02	.699
Q26	LMS encourage to change the competitive criteria of the educational environment	4.22	.731
(Overall)		4.02	

The results on Table (3) show that the calculation Mean for the members of the university faculty is generally (4.02). This shows that their attitudes towards using the Learning Management System in teaching were positive. And that the highest average calculation Means for the faculty members is 4.35 corresponding to the fourth item, which indicates that the employment of the Learning Management System contributes to clarify the content of the scientific material. This was followed directly by the seventh and eleventh items and with a calculation Mean of 4.33. The seventh item indicates that the employment of the Learning Management System increases the constructive interaction between the student and the teacher, and the eleventh item indicates that the use of the Learning Management System makes it easier for teachers to work efficiently.

However, the seventeenth item came in the last order in terms of the calculation Mean of 3.13. This item addresses the roles of the student and the university teacher in the classroom. It shows that the use of the Learning Management System reduces the role of the instructor and increases the role of the student. Therefore, the calculation of the teachers' responses was the lowest among all the subjects of the study, simply because they wanted to maintain their active role in the classroom according to their standpoint.

To answer the second question: "What are the attitudes of students at Abdulrahman Bin Faisal University towards the use of the Learning Management System in their learning?" The researchers computed the calculation Mean and standard deviation of the instrument questions prepared for this purpose, and the results are indicated on Table (4).



Table (4): Mean and the standard deviation of the students’ tool (N=307)

No	Items	Mean	SD
1	Teachers encourage the use of LMS software in lectures.	3.89	1.12
2	My reading of the courses by using LMS software became better.	4.21	.916
3	Making assignments through LMS software easier and faster.	4.42	.937
4	Activities sent by LMS software are clear and useful.	4.08	.936
5	LMS Software provides additional learning resources related to courses.	3.75	1.11
6	The amount of information obtained through LMS software is greater than the normal grade.	3.70	1.08
7	LMS software helps me see the new information for the courses before it is explained.	3.95	1.11
8	Learn more during classroom discussions about the new material for lectures on LMS.	3.57	1.21
9	LMS software helps me develop self-learning.	3.98	.949
10	LMS Software helps me ensure long-life learning.	3.53	1.11
11	I would like to get more training on how to use the LMS.	3.40	1.21
12	I ask for help from others if there is any problem when using LMS.	3.76	1.13
13	My colleagues discussed how to use the LMS.	3.44	1.21
14	The LMS Software contributes to the clarification of the content of the subject matter.	4.17	.920
15	The LMS software helps us to learn without having to attend university.	4.12	1.17
16	I would like to enroll in courses and training based on the use of the LMS.	4.14	1.03
17	The LMS software helps me learn without being committed to a specific place or time	4.29	.956
18	I feel pleasure when talking to me about the LMS software and its uses.	3.35	1.32
19	The LMS software increases interaction between teacher and learner.	4.01	1.01
20	The LMS software helps provide enjoyable learning.	3.93	1.06
21	Learning with the LMS software will gradually replace traditional learning.	4.35	.960
22	The cost of learning using the LMS software compared to normal learning is higher due to the use of the internet.	2.38	1.24
<b>(Overall)</b>		<b>3.84</b>	

The results on Table (4) show that the calculation Mean of the students' general identification sentences is 3.84. This shows that the students' attitudes towards using the Learning Management System in learning were positive and useful. The highest calculation Mean of the tool questions was 4.42 corresponding to the third item, which indicates that the employment of the Learning Management System in the students’ assignments facilitates and speeds up solving and sending them to the instructors, followed immediately by the 18th item with 4.35 Mean indicating that the students enjoy dealing with the Learning Management System and talking about it among themselves. However, the last item (22) came in the last order in terms of the calculation Mean of 2.38, which deals with the material cost of the use of the Learning Management System as higher compared to conventional methods. This is logical because the item was negative, in other words the student sees the use of the Learning Management System as less expensive. It is also possible to explain that the student at this age does not focus much of his thinking on the material cost of university learning, especially in Saudi Arabia, which supports education at all levels and provides monthly rewards to university students. Students are more interested in the mechanisms that facilitate and accelerate their learning in an exciting manner.

To answer the third question: "Do the attitudes of faculty members differ about the use of the Learning Management System in their teaching according to gender, academic track, and experience?" The researchers calculated the statistical Means and standard deviations associated with sex, academic track, and experience, as shown on Table (5)

Table (5): Means and standard deviations of faculty members' attitudes towards Learning Management System

	Variable	Mean	SD
Gender	M	4.13	.49
	F	3.89	.53
	Total	4.02	.52
Track	Engineering	4.18	.54
	Health	3.97	.44
	Applied Studies	3.94	.55
	Total	4.02	.52
Experience	1 – 4 Ys	4.11	.48
	5 – 10 Ys	4.03	.49
	More than 10 Ys	3.91	.58
	Total	4.02	.52

Total	4.02	.52
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Table (5) refers to the calculation Mean and standard deviations of faculty members' attitudes towards using the Learning Management System according to the variables: gender, academic track, and experience.

We find a difference in the calculation Mean between males and females of 0.24 for males, where the calculation Mean of males is 4.13, and the standard deviation is 0.49, and the Mean of females is 3.89 with a standard deviation of 0.53. The results showed that the Mean of the faculty members in the engineering track was the highest among all the tracks with a score of 4.18 and a standard deviation of 0.54. The health track faculty members scored 3.97 with a standard deviation of 0.44. The lowest Mean (3.94) was attributed to the applied and humanities studies track with a standard deviation of 0.55.

Regarding the attitudes of faculty members according to their teaching experience, Table (5) indicates that the category of teachers with less teaching experience (1-4 years) is the most positive towards the use of the Learning Management System with Mean of 4.11 and a standard deviation of 0.48. Yet, the attitudes of the most experienced category of (10 years) were less positive with Mean of 3.91 and a standard deviation of 0.58. By reading the above results, we find that there are apparent differences in the calculation Mean of the attitudes of the faculty members at Abdulrahman Bin Faisal University according to the variables of gender, academic track and teaching experience. To ascertain the validity of the differences, the researchers performed the ANOVA analysis, and the results were presented on Table (6).

Table (6): ANOVA test of faculty members' attitudes towards Learning Management System

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	10.561a	16	.660	3.335	.000
Intercept	1252.367	1	1252.367	6327.385	.000
Gender	1.121	1	1.121	5.665	.020
Experience	.158	2	.079	.398	.673
Track	.770	2	.385	1.946	.150
Error	15.438	78	.198		
Total	1561.423	95			
Corrected Total	26.000	94			

a. R Squared = .406 (Adjusted R Squared = .284)

Table (6) shows that there are statistically significant differences in the attitudes of the faculty members at Abdulrahman Bin Faisal University towards the use of the Learning Management System due to gender and for male benefit with a value of ( $\alpha = 0.05$ ) and a statistical significance value (0.020,  $F = 5.665$ ). However, the results indicate that there are no statistically significant differences in the attitudes of university teachers towards the use of the Learning Management System for the variables of the study: the number of years of experience and the academic track. The significance of experience reached (0.673,  $F = 0.398$ ) and that of the academic track ( $F = 1.946$ , 5.665).

To answer the fourth question, "Do students' attitudes towards the use of the Learning Management System in learning differ in terms of gender, academic level, and academic track?" The researchers calculate the Mean and standard deviations associated with sex, level of study, and academic track as indicated on Table (7).

Table (7): Means and standard deviations of students' attitudes towards Learning Management System

	Variable	Mean	SD
Gender	M	3.93	.57
	F	3.72	.70
	Total	3.84	.64
Level	1 <sup>st</sup> Year	3.99	.62
	2 <sup>nd</sup> Year	3.95	.51
	3 <sup>rd</sup> Year	3.80	.62
	4 <sup>th</sup> Year	3.59	.74
	Total	3.84	.64

Track	Engineering	3.35	.72
	Health	3.92	.52
	Applied Studies	4.09	.49
	Total	3.84	.64

The results on Table (7) indicate the Means and standard deviations of the research variables associated with the students. We find a difference in the calculation Mean between males and females of 0.21 for the benefit of males. The Mean for males was 3.93 and a standard deviation of 0.57. The Mean of females was 3.72 with a standard deviation of 0.70.

The results of Table (7) show that the Mean of the first-year students is the highest among all the years with 3.99 and a standard deviation of 0.62. For the second-year students, it was 3.95 with a standard deviation of 0.51. For the third-year students, it was 3.80 with a standard deviation of 0.62. For the fourth year, it was the lowest of all and reached 3.59 with a standard deviation of 0.74.

These results show that there are apparent differences between the calculations Mean according to the level of students. Table 7 also shows the calculation Mean according to the academic track of students. The calculation Mean of the applied and humanities studies students was the highest among the other tracks in the study. The Mean was 4.09 and the standard deviation was 0.49.

The Mean of the engineering track students was the lowest: 3.35 with a standard deviation of 0.72, while the Mean of the students of the health track was 3.92 and the standard deviation 0.52. This is indicative of the existence of apparent differences between the tracks in the students' attitudes towards their use of the Learning Management System. To ascertain the intrinsic differences in the calculation means of the research variables (gender, academic track, and level of study), the researchers performed the ANOVA test and the results are shown on Table (8).

Table (8): ANOVA test of students' attitudes towards Learning Management System

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Corrected Model	41.132a	23	1.788	5.908	.000
Intercept	1613.519	1	1613.519	5330.054	.000
Gender	.008	1	.008	.028	.868
Level	5.437	3	1.812	5.987	.001
Track	14.924	2	7.462	24.649	.000
Error	85.670	283	.303		
Total	4659.862	307			
Corrected Total	126.802	306			

a. R Squared = .324 (Adjusted R Squared = .269)

Table (8) shows that there are no statistically significant differences in the attitudes of students towards the use of the Learning Management System due to sex at ( $\alpha = 0.05$ ), and the statistical significance value was (0.868,  $F = 5.028$ ). The results indicate that there are statistically significant differences in the attitudes of students towards the use of the Learning Management System for the study variable: the student's level of education. The value of the significance of the academic level reached (0.001,  $F = 5.908$ ) for the first-year students followed by second-year students, third-year students, and eventually the fourth year students. The results also indicate statistically significant differences in students' attitudes towards using the Learning Management System for the academic track variable and for the students of the applied and humanities sciences track, followed by the health track students and finally the engineering track students. The significance of the academic track value is 0.000,  $F = 24.649$ .

## DISCUSSION OF THE FINDINGS AND RECOMMENDATIONS

### FIRST: RESULTS RELATED TO THE FIRST QUESTION

The results showed that the attitudes of faculty members towards the use of the Learning Management System in teaching were positive. The reason for this can be attributed to a number of reasons. The most important of these are: the awareness of faculty members of the usefulness of electronic programs and their added value in teaching, and the transfer of knowledge through the educational technology that has invaded the world of knowledge especially university teaching. The use of the Learning Management System in teaching contributes to clarifying the content of scientific material by providing students with a greater opportunity to prepare the content to be downloaded for presentations, references and related videos.

It also provides a prospect for constructive communication between the teacher, students and among students themselves through the discussion forum available on the Learning Management System. The latter also increases the ability of the teacher to organize the administrative work (attendance and absence of students, participation, grades, files of achievement ... etc.).

The Learning Management System provides the possibility of telling students what is new postponement or presentation of lectures, room number changes, test dates ... etc.) regarding the course where the teacher informs students in advance. The Learning Management System software also helps the teacher to set time correctly among all the students in terms of delivering assignments electronically. The Learning Management System provides the opportunity to activate the strategy of the inverted classes by turning the roles of the parties in the educational process by making the role of students the center of the teaching and learning process.

The results of this study are consistent with many studies (Alblassi, 2016; AlShamary, 2016; Al-Mutairi, 2015; Mzrou, et al., 2013) that indicate that the attitudes of faculty members towards the Learning Management System are positive and effective in university teaching.

### **SECOND: RESULTS RELATED TO THE SECOND QUESTION**

The results evidenced that the students' calculation Means for the use of the Learning Management System software were positive and achieved 3.84. This represents a high percentage, possibly due to students' desire and tendency to use technology, and their integration into university learning because they can be considered as numerically literate. The use of technology in learning increases students' excitement facilitates their integration into learning and makes it easier for students to learn by investing in smart devices that are in their reach by viewing the presentations and videos the teachers hold for their courses. This is confirmed by item (18) of the study tool, which indicates that students enjoy dealing with the Learning Management System and talking about it among themselves as an additional learning tool rich in expressive images and illustrative videos. This increases the attractiveness of the material and enhances students' interaction and motivation in learning.

The results of this study are consistent with many studies (Aljarrah, 2011; Al- Alqadere, 2014, Salloum, 2011; Mashaqbeh, 2009; Ayad, 2008; Khadash and Al-Hadrami, 2006) which pinpoint the efficiency of the Learning Management System in learning and reveal students' positive attitudes. The degree of students' satisfaction with the Learning Management System is very high because of its obvious impact on increasing their achievement and interaction and its potential options that allow them to communicate with their teachers and colleagues.

### **THIRD: RESULTS RELATED TO THE THIRD QUESTION**

The results indicated differences between faculty members related to their attitudes toward the Learning Management System in university teaching due to sex and in favor of males. The reason according to the researchers lies in the fact that male faculty members have more freedom to attend training courses held by the university over the past years to raise the efficiency of teachers and to enhance their confidence in the implementation of modern technology such as the Learning Management System into the teaching environment.

Contrariwise female faculty members hold negative attitudes towards the use of the Learning Management System for many reasons. They often need a means of transport to the place of training sessions because the laws of the Kingdom of Saudi Arabia prohibit girls to drive cars. In addition, the time load of female teachers is less than that of male teachers as they have additional household burdens. This affected negatively their attitudes towards the Learning Management Systems. Above all, the program of the Learning Management System necessitates adequate training in its use and activation as required in the teaching process.

The results indicate that there are no statistically significant differences in the attitudes of faculty members towards the use of the Learning Management System due to the number of years of experience and academic track. This can be explained by the fact that most faculty members are trying to implement the Learning Management System software in their teaching, regardless of the years of experience and academic track. It is relatively a modern software that everyone tries to master and use in teaching. There is a competition among all the instructors in teaching, and they have enough enthusiasm and academic experience to generate the conviction of the importance of this program in reducing the burden on the faculty members. This helps students to shift from traditional learning to modern learning which is really funny, dynamic and interactive. In addition, the utilization of the Learning Management System is officially required by the University administration for all faculty members regardless of their experience and track. It is also considered as a fundamental criterion of academic performance evaluation.

The results of this study are in part consistent with the results of some studies and different from others. They match up with some studies (AlShamary, 2016; Alblassi, 2016; Mzrou et al., 2013) in the absence of differences of statistical significance according to the academic track. Yet, they differ from the study of Alblassi (2016) which did not find significant statistical differences due to the gender of university teachers.

#### **FOURTH: RESULTS RELATED TO THE FOURTH QUESTION**

The results of the study showed that there are no statistically significant differences in the attitudes of students towards the use of the Learning Management System due to sex. This can be explained by the fact that students are seeking to learn through this program regardless of their gender. Abdulrahman Bin Faisal University provided both sexes with modern computer rooms, computers and a network that can meet the needs of all the students at the same time. This contributed to building a knowledge base of computer systems, accessing the Learning Management System and enhancing students' capabilities in using e-learning. Added to that, students at this age enjoy learning that employs technology. On the other hand, male and female university teachers use the Learning Management System for transferring their teaching materials and requesting their students to access the presentations, videos and various references available on the Learning Management System and to use it for doing and submitting their assignments.

The results of the study indicate that the attitudes of the first-year students towards the use of Learning Management System were the most positive among all the four years. The attitudes of the second-year students occupied the second order, and then came the third-year students; and at last, fourth-year students came in the last order. This ranking is due to several reasons. New students are more in need of communication with university teachers. The Learning Management System software is a new technology for new students and is less attractive to students as they progress in the university. In addition, the number of the first and second year students is relatively larger than that of the third and fourth years. This Means that student's time in the class discussions and their meeting with their teachers during the office hours is much less than that of the advanced years. So, the Learning Management System represents a good opportunity to communicate with teachers as well as colleagues to exchange any views. In addition, the number of students in the third and fourth years is less, and their chance during the time of lectures and office hours is greater for discussions and inquiries about any issues related to the courses. This reduces their use of the Learning Management System software.

The results indicated that students' attitudes towards the use of the Learning Management System in the applied and humanities studies track were the most positive of all, and then came the health track and engineering track in the second and third rank respectively. The reason for this is that the programs of applied and human studies need to be discussed and maintained with the teachers more than the other tracks. The Learning Management System software facilitates communication compared to the other programs such as engineering, which contains calculations, measurements and field applications that cannot be obtained through Learning Management System. In addition, the number of students in the track of applied and humanities studies is greater. This Means that fewer opportunities for classroom discussions and meeting with teachers during their office hours, so they communicate with them through the Learning Management System. Yet, the number of engineering and medical students is less than that of the other tracks, and the opportunity for dialogue and class discussion and meetings in office hours is greater, thus reducing their use of the Learning Management System, and this is reflected in their attitudes towards this software. This may also be attributed to the fact that engineering and medical students use advanced and specialized software in their studies and this fact leads them to consider the Learning Management System as conventional and non-attractive software.

The findings of this study are consistent with the results of some studies (Aljarrah, 2011; Alqadere, 1433, Ayad, 2008; Khadash and Al-Hadrami, 2006). They also differ from the findings of the study of Mashaqbeh (2009) which hints no differences of statistical significance due to sex, academic year, program and previous experience. In addition, they differ from the study of Salloum (2011) which pointed to the difficulty of female enrollment in the necessary training to activate the Learning Management System because of the problem of transport as the Saudi government forbids females from driving cars as well as the teaching of males to females through the network without face to face communication. This difference may be due to temporal and spatial conditions, to various populations under scrutiny and to differing study procedures.

#### **RECOMMENDATIONS**

In the light of the results of the study, many recommendations are identified.

1. The need to conduct further studies on the impediments and challenges faced by university students and faculty members while using the software Learning Management System in learning and teaching and finding solutions to those problems.

2. The necessity to conduct more training sessions on the implementation of the Learning Management System software in university teaching for students and faculty members and to increase the efficiency of the services provided by this software.
3. Giving priority to appointing new faculty members who have knowledge of using the Learning Management System in teaching.
4. The necessary technical support is needed to find solutions that may occur when using the Learning Management System and to benefit from all the services provided by Learning Management System software.
5. Elaborating typical units for all courses and linking them to Learning Management Systems to make them easier to teach.

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