

Received on (03-06-2022) Accepted on (05-09-2022)
<https://doi.org/10.33976/IUGJEPS.31.3/2023/26>

Attitudes of University College Students in Al-Khafji toward Using Blackboard Software in Learning and its Relationship to the Level of Satisfaction (Coronavirus Crisis as a Model)

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Abstract:

The current study identified the attitudes of the bachelor students at the University College in Khafji towards the use of the Blackboard software in their learning and the extent of their satisfaction with the use of this software. The study population consisted of all (920) female students of Al-Khafji University College, as a sample of (294) female students was selected, who were chosen in a simple random way during the second semester of the academic year (2020/2021). The results revealed that the attitudes of undergraduate students at Khafji University College towards using Blackboard software in their learning came at a high evaluation level. Results also showed that the degree of satisfaction of undergraduate students at Khafji University College towards Blackboard software came at a high evaluation level. The results showed that there was a positive, high, and statistically significant relationship at the significance level ($0.01 \geq \alpha$) between the attitudes of the female students of Khafji University College towards the use of the Blackboard software and the level of satisfaction among the female students.

Keywords: attitudes, blackboard software, coronavirus crisis, Saudi Arabia, undergraduate students.

اتجاهات طلاب الكلية الجامعية بالخفجي نحو استخدام Blackboard في التعلم وعلاقته بمستوى الرضا (أزمة فيروس كورونا نموذجاً)
المخلص:

هدفت الدراسة الحالية للتعرف على اتجاهات طلاب البكالوريوس في الكلية الجامعية بالخفجي تجاه استخدام Blackboard في تعلمهم ومدى رضاهم عن استخدام هذا البرنامج. تكون مجتمع الدراسة من (920) طالبة بكلية الخفجي الجامعية، حيث تم اختيار عينة من (294) طالبة تم اختيارهن بطريقة عشوائية بسيطة خلال الفصل الدراسي الثاني من العام الدراسي (2021/2020). أظهرت النتائج أن اتجاهات طلاب البكالوريوس في كلية الخفجي الجامعية نحو استخدام برنامج Blackboard في تعلمهم جاءت بمستوى تقييم عالٍ. كما أظهرت النتائج أن درجة رضا طلاب البكالوريوس في كلية الخفجي الجامعية عن برنامج Blackboard جاءت بمستوى تقييم عالٍ. أظهرت النتائج وجود علاقة موجبة وعالية في اتجاهات طالبات كلية الخفجي الجامعية نحو استخدام برنامج البلاك بورد ومستوى الرضا لدى الطالبات.

كلمات مفتاحية: الاتجاهات، البلاك بورد ، أزمة فيروس كورونا ، السعودية ، طلاب البكالوريوس.

Introduction:

Our world in which we live is characterized by continuous developments in the field of modern scientific and technical knowledge, such as the Blackboard learning system, e-learning, online learning, and other electronic means that help the learner in the educational process.

The usual method of university teaching is based on direct interaction, whether in the traditional teaching method or the modern teaching method. As for education through the Blackboard software, it is a method designed to help students and teachers interact through the lectures presented on the Internet, in addition to the activities that complement the class lesson. Short quizzes, exams, chats, and discussion forums are also made. The Blackboard system is a learning management system through the Internet, in addition to providing academic materials as well. (Al-Manhrawi, 2015; Ghazel, 200).

The learning management system is one of the most famous applications of the e-learning system, which is a commercial system from the Blackboard Company for direct educational services in Washington. It is distinguished by its strength, flexibility, and ability to develop and expand. According to Al-Juhani (2020), the Blackboard system has basic tools, including the components of the page as follows:

The information messages that the teachers direct to their students, the tasks they assign to them, the elements that must be paid attention to, and which include duties and a module, can be added to the course. Advertisements are also made and submitted to students, and a date is set for their presentation. The side menus represent the content area, through which a faculty member can add content to the course in multiple formats, and the assignments, in which assignments are done for students, determine the degree of duty and the number of attempts available. The discussion board is through which the course professor can conduct discussions, either individually or in groups, through forums that include all students registered in the course. E-mail, through which messages are sent to students,

The virtual classroom represents a system for meetings on the network and allows the student to consult with his colleagues and the professor of the course. The dialogue panel represents a box that enables students to write whatever they want on it for everyone who connects to the meeting system at that time to see. There is a graphic panel that allows navigation with text, graphics, or images, as well as displaying them to students or the course professor. The Blackboard system also provides links for course management, including course tools and the assessment and evaluation center. The ease of use and spread of the Blackboard software is one of the most important features of it in the world (Bradord et al., 2007).

About the mechanism of designing the Blackboard software: a consulting company to provide technical standards for e-learning applications through Matthew Petsenke and Michael Gassen in 1997 AD by designing the Blackboard software to represent the regular classroom, including panels and tools, to help complete the electronic educational process using information and communication technology and to provide an easy-to-use means through which the teachers can put everything they need and what their students need in terms of information about the study material, academic content, lectures, and all the things that allow interaction between the elements of the educational process system.

In 2004, Blackboard and Web Corporation became one company called the Blackboard Company, and this company controls 80% of the information systems market in North America. Currently,

70% of American universities are using Blackboard programming, and it is used in more than 60 countries (Pittinsky, 2004; Olsen, 2001).

Blackboard allows uploading the materials that the teacher teaches on the website, communicating and interacting in a good and enjoyable way, and one of its most important features is as follows:

Providing continuous feedback on the test results and allowing inquiries for students through the discussion board or e-mail, and interacting with the study material through the Internet at any time. It facilitates the communication of students with their professors through virtual classes and e-mail. It works on building students' skills by organizing time for each assignment, as it takes into account the multiple learning styles of students (Bradford et al., 2007). It allows uploading the materials that the teacher teaches on the website. It also allows communication and interaction in an enjoyable and good way. Students can review lectures and submit assignments. This software enables the lecturer to obtain statistical information about the students and track their duties and the date they were sent so that it takes into account the student's learning patterns. It is also distinguished by its strength compared to other systems, as it offers a variety of educational opportunities through which it breaks all the barriers and obstacles facing educational institutions and is characterized by flexibility. It takes into account the principles of active learning as it presents projects for students, whether individually or collectively, and encourages students to cooperate in in-class assignments, thus making it easier for the learner to understand what is being asked of him/her. It works on developing students' talents. Each learner chooses the project they will accomplish, and this thus allows the learner to research topics of interest to him/her and allows them to participate in the projects of other colleagues (Ojo & Olakulehin, 2006).

Graham et al. (2001) and Ojo and Olakulehin (2006) indicate that Blackboard software encourages the learner to communicate with the teacher and their colleagues, based on their teacher's instructions, about the process of communication, assignments, and tests; through the digital transmission box, or e-mail; which supports team spirit and creates confidence among students; and encourages the learners to cooperate with their colleagues through designed and scheduled assignments, which facilitates and helps collaboration between students. It also makes it easier for the learners to understand what they are asked to do, and allows the teacher to monitor the discussion process as the control panel enables the teacher to allow the student to modify or add files and items. At the end of each assignment, the teacher can stop the learner so that he/she cannot add any new notes through the discussion board. The teacher also sends an e-mail to one student or all his students, sends attached files showing the student's score on assignments, tests, and discussions, and submits projects for individual learners, whether or not collective, using the communication system in the Blackboard software and the discussion board, which the learner can use to deposit questions and answers with supporting documents, or answers to questions by some students. Studies have also proven that the application of the use of the Blackboard system helps in maintaining the learning effect, as shown by Alhussain, 2017; Torrisi, 2010; Heidi & Neo, 2015).

The learners showed positive trends through their satisfaction with the Blackboard system, which provides cooperation and interaction inside and outside the halls, as its use helps to motivate students, increase their focus and attract their attention, and the learner can form a point of view through the multiple features provided by the system that affect their inclinations, which serves as a motivation that helps direct their behavior, so the attempt to measure these trends contributes to predicting the future behavior of the learner (Fazio & Roskos, 2008). In this study, it is possible to benefit from identifying the students' attitudes towards using the Blackboard software and its role in developing the educational process, thus achieving the educational goals planned for its implementation and knowing the level of students' satisfaction with this software.

Statement of the Problem and its Questions

Various educational institutions have been closed since March 15, 2020, and the University College in Khafji has harnessed its educational capabilities to ensure the continuity of the educational

process for female students in light of the coronavirus pandemic. Due to the Corona pandemic, Blackboard software has been applied to all courses taught at the University College in Khafji, whether literary or scientific. Many studies (e.g., Almelhim, 2021; Nassar and Rajeh, 2022) show that using Blackboard has played a key role during the COVID-19 Pandemic. Hence, this study aimed to identify the attitudes of undergraduate students at the University College in Khafji towards the Blackboard software and gauge their level of satisfaction with this software through the following questions :

What are the attitudes of the undergraduate students at Al-Khafji University College towards the use of Blackboard software in their learning? How satisfied are the undergraduate students at Al-Khafji University College with the Blackboard software? Is there a statistically significant relationship between the attitudes of the female students of Al-Khafji University College towards using the Blackboard software in learning and the level of satisfaction among the students?

The Purpose of the Study

This study aimed to identify the attitudes of undergraduate students at Al-Khafji University College towards the use of Blackboard software in their learning and the extent of their satisfaction with the use of this software.

The Significance of the Study

The importance of the study lies in knowing the attitudes of the undergraduate students at the University College in Khafji towards the use of the Blackboard software in their learning since this software was not used comprehensively before that for all courses, but because of the Corona pandemic, the college was forced to implement and adopt it in all courses.

Operational Definitions of Terms

Blackboard software is software that allows the teacher to upload the materials he studies to students on a website and also allows the learner to continue learning through communication and interaction. It helps make the Internet a powerful tool for managing and directing the educational process.

Attitudes are a level of the learner's actual readiness levels that lead to a specific direction in the individual's response to certain things and their measurement through a questionnaire.

Undergraduate studying: A degree is awarded after successfully passing the courses of the study plan for that course and over a period of four academic years.

Limitations of the Study

The study was limited to female students enrolled in the undergraduate program in the second semester of the 2020–2021 academic year, and the results of the study were determined by the tool, its reliability, and validity.

Previous Studies

Hong et al. (2003) conducted a study aimed at identifying the attitudes of Malaysian university students towards using the Internet as a mediator in their learning and determining their attitudes towards web-based study materials. The number of students participating in the study was 487. The results of the study indicated that there are highly positive attitudes among the study members towards the use of the Internet in education and that this is an educational mechanism that encourages learning.

Zhang and Yeung (2005) conducted a study to find out the attitudes of high school students in Hong Kong towards e-learning, in which interviews were conducted with 382 students. The results of the study indicated that the majority of the study members had positive attitudes towards e-learning, with degrees ranging from average to high.

Shu et al. (2006) aimed at knowing the attitudes of secondary school students and teachers towards adopting e-learning in the education process. About 186 male and female students and 30 teachers participated in the study. The results of the study indicated that there are highly positive attitudes

among the study members towards e-learning, especially the use of the Internet as a source of study materials.

Khas and Al-Hadrami (2006) conducted a study on the use of blackboard and dealt with the use of educational materials for accounting principles (1) that were taught at the Hashemite University in Jordan to evaluate the use of educational materials prepared on the Internet in terms of the extent of their use and acceptance by students and the level of benefit they provided. The study concluded that there is a high acceptance by students for the use of electronic educational materials and that this use has a positive impact on student's educational levels.

Liaw (2007) aimed to find out learners' satisfaction and the effectiveness of the Blackboard system. A questionnaire was used and distributed to 424 students at Taiwan University. The results showed that self-efficacy is one of the critical factors in achieving learners' satisfaction with the Blackboard system, and the effectiveness of the Blackboard system is affected by the use of multimedia.

Badawi (2010) conducted a study that aimed to identify the effectiveness of teaching a unit of study on developing students' skills and developing their attitudes toward e-learning. The study concluded that the blackboard system provided students with opportunities to participate in teaching the unit through forums and discussion boards, which led to the growth of positive trends toward e-learning. The results also showed an increase in interaction and communication between them and the lecturer.

Al-Jarrah (2011) aimed to learn the attitudes of the University of Jordan students towards the use of the Blackboard software in their learning. About 365 students participated in the study. The results of the study indicated the presence of positive attitudes among the study members towards the use of the Blackboard software in their learning.

Al-Sadhan (2015) sought to ascertain the attitudes of students and faculty members at Imam Muhammad bin Saud University's College of Computer and Information Sciences toward the use of the Blackboard e-learning management system in teaching and university learning. The study sample consisted of 355 students and 72 faculty members. The results of the study showed that the average general attitudes of students and faculty members towards the use of the e-learning management system are positive.

Masion (2015) aimed at knowing the extent to which the Blackboard system contributed to improving communication, providing educational level, and supporting students registered in electronic courses. The study sample included 18 individuals who deal with the E-Facilitators system at the University of the West Indies and used the questionnaire. The results of the study indicated that 55 percent of the respondents believe that the blackboard system is effective and contributes to supporting students' learning and that there is a belief that its effect is limited.

Al Randi and Aba Al-Khail (2016) conducted a study aimed at knowing the extent to which the blackboard system is used to manage e-learning by undergraduate students in the College of Social Sciences at Kuwait University in terms of their benefit from this system, and their knowledge of the negative and positive aspects of its use, and their knowledge of the technical and technical difficulties they face when using it. The results of the study indicated that there are positive trends toward the use of the blackboard, that the blackboard system has facilitated the educational process at Kuwait University, and that the most commonly used functions in the blackboard are viewing grades and handing in assignments, as it facilitated these processes, which had the effect of saving time.

Al-Dasmani (2017) is aimed at evaluating the experience of King Saud University in using the Blackboard e-learning management system from the point of view of the faculty members and revealing the obstacles they face when using it. The sample consisted of 27 faculty members. The results of the study indicated that the study members agreed to a large extent on six patterns of using the Blackboard learning system, and they also agreed on a set of obstacles they face when

using the e-learning management system, such as the increase in the teaching load and the lack of specialists in digital learning design.

Alotaibi (2017) aimed to know the trends of a sample of Salman bin Abdulaziz University students towards the Blackboard e-learning management system and to identify the problems they face when using this system in the e-learning process. The results showed that the trends were positive and that there are some technical problems that students face when using the system.

Al-Mulhim et al. (2018) aimed to identify the reality of the student's use of the Blackboard learning management system in the active electronic courses at King Saud University. One of the most prominent difficulties was the lack of e-learning courses, the Blackboard learning management system, and the difficulty of obtaining technical support.

Almelhi (2021) studied students' attitudes toward the role of Blackboard during the COVID-19 Pandemic. The participants were students' attitudes toward the role of Blackboard during the COVID-19 Pandemic. The participants were 103 students in Saudi Arabia. A questionnaire was used for data gathering. Findings showed that the study sample appreciated the use of Blackboard and its important role in their learning during the COVID-19 Pandemic.

Nassar and Rajeh (2022) investigated the educators' perspectives on teaching using Blackboard during the COVID-19 Pandemic. The participants were 29 professors from Umm Al Qura University. Results showed that using the blackboard paved the way to continue teaching during the COVID-19 Pandemic.

Concluding Remarks

The current study agrees with previous studies in referring to the importance of using e-learning systems in the educational process and students' experiences using the e-learning management system. It differs in the type of e-learning system, gender, sample size, type of dependent variables, and study methodology. It is noted by reviewing previous studies that they focused on identifying students' attitudes towards using e-learning. The studies (e.g., Masion, 2015; Al-Sadhan, 2015; Al-Jarrah, 2011) studied university students' attitudes toward learning via Blackboard software. Other studies (e.g., Shu et al., 2006; Zhang and Yeung, 2005) studied school students' attitudes toward learning via Blackboard software. The results of the majority of studies indicated positive attitudes towards e-learning among the study participants. This study came to identify the attitudes of the female students at the University College in Khafji towards the use of the Blackboard software in learning and to know the extent of their satisfaction with it. This software has never been applied to scientific subjects, but due to the coronavirus pandemic, it was applied for this chapter.

Method and procedures

The Design of the Study

To achieve the objectives of the study, the descriptive-correlative approach was used. It is more appropriate to the nature of this study to analyze the data and reach results that help answer the study questions.

Population and Sample of the Study

The study population consisted of all female students of Al-Khafji University College, who numbered (920) during the second semester of the academic year 2020/2021. A sample of (294) female students was selected from the study population using a simple random sampling method. The questionnaires were distributed electronically to all of them, and all of the questionnaires were subjected to analysis and coding, and they represented (31.9%) of the original community. Table (1) shows the distribution of individuals according to the study variables.

Table 1

Distribution of study members according to study variables

Study Variables	Categories	Frequencies	Percentage
Academic Year	first year	213	%72.4
	Second Year	9	%3.1

	third year	60	%20.4
	Fourth-year	12	%4.1
	Total	294	100.0%
Course	Humanitarian	201	%68.4
	scientific	93	%31.6
	Total	294	100.0%
Academic Achievement	Excellent	78	%26.5
	Very well	123	%41.8
	good	60	%20.4
	acceptable	33	%11.2
	Total	294	100.0%

Instrument of the Study:

To achieve the objectives of the study, an instrument was developed in the form of a questionnaire, after reviewing the literature on the subject of the research and referring to previous studies related to the topic of the study, such as the study of College (2005). The questionnaire consisted of (47) items, which were divided into two parts:

Part one (33 items) aims to measure the attitudes of undergraduate students at Khafji University College towards the use of Blackboard software in their learning and consists of.

The second part (14 items) aims to measure the degree of satisfaction of undergraduate students at Al-Khafji University College with the Blackboard software.

The validity of the Study Instrument

Content Validity

To verify the validity of the apparent content of the study tool, it was presented in its initial form to a group of arbitrators from the experienced faculty members in Jordanian universities to identify the suitability of the paragraphs to the scale in terms of (clarity of the items, linguistic formulation, suitability for measuring what they were set for, and the extent to which the items belong to the dimension to which they belong). All comments by the arbitrators have been taken into account. The linguistic wording of the items that were agreed upon has been modified by approximately (80%), as a minimum, that was agreed upon by the arbitrators as a criterion for judging their validity.

Construction Validity

To verify the validity of the construction of the study tool, it was applied to an exploratory sample consisting of (30) female students from the University College in Khafji to know the extent of the internal consistency of the tool and the extent of the contribution of its constituent items. This was done by calculating the Pearson correlation coefficients among the items of the study tool with the total score of the field to which it belongs, and Table (2) shows this.

Table 2

Correlation coefficients of the study instrument items with the total score of the domain they belong to

The extent of female students' satisfaction with the Blackboard software			Students' attitudes towards the use of Blackboard software in their learning					
Item	correlation coefficient	Significance level	Item	correlation coefficient	Significance level	Item	correlation coefficient	Significance level
1	**0.546	0.000	1	**0.636	0.000	18	**0.648	0.000
2	**0.639	0.000	2	**0.739	0.000	19	**0.689	0.000
3	**0.706	0.000	3	**0.781	0.000	20	**0.599	0.000

4	**0.566	0.000	4	**0.718	0.000	21	**0.711	0.000
5	**0.613	0.000	5	**0.589	0.000	22	**0.687	0.000
6	**0.608	0.000	6	**0.652	0.000	23	**0.666	0.000
7	**0.637	0.000	7	**0.667	0.000	24	**0.629	0.000
8	**0.589	0.000	8	**0.698	0.000	25	**0.589	0.000
9	**0.652	0.000	9	**0.756	0.000	26	**0.711	0.000
10	**0.537	0.000	10	**0.636	0.000	27	**0.792	0.000
11	**0.738	0.000	11	**0.807	0.000	28	**0.756	0.000
12	**0.711	0.000	12	**0.698	0.000	29	**0.684	0.000
13	**0.722	0.000	13	**0.770	0.000	30	**0.753	0.000
14	**0.713	0.000	14	**0.598	0.000	31	**0.620	0.000
			15	**0.636	0.000	32	**0.612	0.000
			16	**0.774	0.000	33	**0.739	0.000
			17	**0.636	0.000			

Table (2) shows the values of the correlation coefficients for the items related to the attitudes of undergraduate students at Khafji University College towards the use of Blackboard software in their learning, with the total score ranging between (0.589-0.807), and the values of the correlation coefficients for items related to measuring the degree of satisfaction of undergraduate students in Al-Khafji University College towards Blackboard software, with a total score that ranged between (0.537-0.722). All of these values were statistically significant at the significance level (0.05), indicating that the scale items have some degree of internal consistency.

Reliability of the Study Instrument

To ensure the reliability of the study instrument, a reliability coefficient was found by calculating the internal consistency coefficient of the items using the Cronbach-Alpha equation. The study instrument was applied to a group of thirty (30) students from the study community and from outside the study sample. Table (3) shows the values of the internal consistency coefficients according to the Cronbach equation for the study instrument.

Table 3

The internal consistency coefficient using Cronbach's alpha for the study instrument

Dominos	Cronbach Alpha	No. of Items
Students' attitudes towards the use of Blackboard software in their learning	0.899	33
The extent of female students' satisfaction with the Blackboard software	0.878	14
Total	0.942	43

Table (3) shows that the value of the Cronbach's Alpha reliability coefficient for the items of the student's attitudes towards the use of Blackboard software in their learning reached (0.899), and the value of the Cronbach's Alpha reliability coefficient for the items of students' satisfaction with the Blackboard software reached (0.878). The Cronbach's alpha coefficient on the items of the tool as a whole was (0.942).

Variables of the Study:

Independent variables:

Attitudes of female students towards the use of Blackboard software in their learning extent of female students' satisfaction with the Blackboard software.

Dependent variables:

The academic year has four levels (first year, second year, third year, and fourth year). The course has two categories: humanitarian and scientific). Academic achievement has four levels: (excellent, very good, good, and acceptable).

Statistical Processing

The study's data were processed using the (SPSS) program as follows:

To answer the first question, mean scores and standard deviations of the attitudes of undergraduate students at Al-Khafji University College towards the use of Blackboard software in their learning were extracted. To answer the second question, mean scores and standard deviations of the degree of satisfaction of undergraduate students at Khafji University College with the Blackboard software were extracted.

To answer the third question, the Pearson correlation coefficient was used to find the relationship between the college students' attitudes towards using the Blackboard software and the level of satisfaction among the students. The Cronbach-Alpha equation was used to find the internal consistency coefficient and to ensure the reliability of the study instrument. Also, the Pearson correlation coefficient was used to find the internal consistency validity coefficient of the study instrument. The following scale was adopted to analyze the results and judge the arithmetic averages of the study instrument items as shown by using the following equation:

Category length = (the highest value of the alternative-the lowest value of the alternative) / number of scores.

$$= (5-1) / 3 = 1.33$$

Accordingly, the scores (1-2.33) became low, (2.34-3.67) medium, and (3.68-5.00) high.

Results of the Study

Results related to the first question, which states: "What are the attitudes of the undergraduate students at Al-Khafji University College towards the use of Blackboard software in their learning"?

To answer the question, the mean scores, standard deviations, degrees, and ranks were calculated on the items of the attitudes of the undergraduate students at Al-Khafji University College towards the use of Blackboard software in their learning and the overall degree in general. The results were as in Table (4).

Table 4

Mean scores and standard deviations representing the items of the attitudes of the undergraduate students at the University College in Khafji towards the use of Blackboard software in their learning, ranked in descending order

	Items	Mean score	SD	Rank	Degree
.6	The course professor uses the software (Bb) to conduct electronic tests for students.	4.56	0.64	1	High
.5	The course professor uses the software (Bb)	4.47	0.69	2	High

	to raise the assignments for the students.				
.20	Bb software helps you learn without being stuck in a specific place.	4.31	0.91	3	High
.14	Submitting assignments through software (Bb) has become easier and faster.	4.26	1.07	4	High
.10	Bb) software that increases students' achievement.	4.25	0.87	5	High
.16	Blackboard (Bb) software helps to learn without attending university.	4.19	1.01	6	High
.24	The Bb software contributes to sending information to students in a quick way.	4.14	1.02	7	High
.4	The course professor uses the software (Bb) to make course announcements for students.	4.13	1.00	8	High
.32	The (Bb) program is characterized by the ease of students exiting it.	4.12	0.97	9	High
.13	Studying using Bb software has become better.	4.11	1.11	10	High
.19	Bb software helps with self-learning.	4.09	0.92	11	High
.7	Students are quickly provided with their grades through Bb software.	4.06	0.99	12	High
.28	The (Bb) software helps to facilitate access to the course content.	4.04	1.04	13	High
.2	The professor of the course is keen to encourage students to continuously enter (Bb) to study.	4.03	0.98	14	High
.23	Bb software helps to learn in a fun way.	4.02	1.03	15	High
.27	Bb helps to achieve the principle of participatory teamwork.	3.99	1.16	16	High
.29	The (Bb) software helps to facilitate browsing and navigation between pieces of content.	3.97	1.07	17	High
.22	Bb software provides better results than normal learning.	3.96	1.15	18	High
.26	Bb provides suitable interaction patterns for students.	3.95	0.96	19	High
.33	Bb software helps provide immediate feedback and reinforcement to students	3.94	0.94	20	High
.17	The amount of information I get through Bb is much greater than in a regular class.	3.92	1.23	21	High
.18	I learn appropriately through the (Bb) software during class discussions on the topic of the lecture.	3.91	1.05	22	High
.15	Bb provides students with additional learning resources related to the course.	3.90	1.26	23	High
.12	The Bb software contributes to clarifying the course content.	3.86	1.01	24	High
.1	The course professor is keen to familiarize	3.85	1.08	25	High

	the students with the advantages of using the e-learning management system (Bb).				
.31	The (Bb) software is characterized by the ease of access for students to it.	3.84	1.21	26	High
.8	The software (Bb) helps the students in communicating with the course instructor.	3.83	1.24	27	High
.25	Bb is easy to understand and learn.	3.81	1.22	28	High
.30	The (Bb) software helps to provide creative activities that achieve interaction between students.	3.80	1.21	29	High
.21	Bb software helps to learn without having to commit to a specific time.	3.77	1.30	30	High
.3	The course professor provides me with electronic links and videos that support the learning process.	3.76	1.28	31	High
.9	The course professor helps the students to overcome any problem they face with the (Bb) software.	3.65	1.29	32	medium
.11	I'd like to get more training on how to use Bb.	3.47	1.33	33	medium
	Total	4.00	0.73		High

It is noted from the results of Table (4) that the arithmetic mean values of the items of the bachelor students' attitudes at Khafji University College towards the use of the Blackboard software in their learning ranged between (3.47 – 4.56), and the evaluation degree ranged from high to moderate on the items. The instrument as a whole obtained a mean score (4.00), a standard deviation (0.73), and a high evaluation level. Item (6), which states that "the course professor uses the software (Bb) to conduct electronic tests for female students," came in the first place, with an average of (4.56) and a high degree. The researcher attributes this result to a large reliance on this software by the professor of the course in conducting electronic tests and evaluating the performance of students after the COVID-19 pandemic. This was followed by item (5), which states that "the course professor uses the software (Bb) to raise assignments for female students" with an average of (4.47) and a high degree. The researcher attributes this result to a large reliance on this software by the professor of the course to raise the duties for female students after the COVID-19 pandemic. Item (11), which states "I would like to get more training on how to use the (Bb) software." has got the last rank with a mean score of (3.47) and a medium degree. This indicates that the use of the Blackboard software has helped the students better in their learning and increased their achievement. It provides the required summaries of the material and helps in organizing and following up their studies in a better way. The results of this study agree with the studies of Akkoyunlu and Soylu, 2006; and Liang and Tasi, 2009. The researcher attributes this result to the rapid transition from traditional education to e-learning and because the blackboard system was suddenly imposed due to the COVID-19 pandemic and was not an option, in addition to the poor experience in using the Internet and computers for some students and the simple knowledge of using the e-learning management system. This result is in agreement with the study of Al-Mulhim et al. (2018), which indicated that the effectiveness of the blackboard in university studies came to a medium degree from the student's point of view.

Results related to the second question, which states: "How satisfied are the undergraduate students at Al-Khafji University College with the Blackboard software?"

To answer the second question, the mean scores, standard deviations, degrees, and ranks were calculated for the items of the degree of satisfaction of the bachelor students at the University College in Khafji towards the Blackboard software. The overall degree in general and the results were as shown in Table (5).

Table 5

The mean scores and standard deviations of the items of satisfaction of undergraduate students at the University College in Khafji towards the Blackboard software were ranked in descending order.

	Items	Mean score	SD	Rank	Degree
.14	I am satisfied with the (Bb) software because I can access it through a mobile phone or a computer.	4.28	0.94	1	High
.11	I feel satisfied with the level of my achievement through the (Bb) software.	4.27	0.87	2	High
.3	I feel satisfied with quickly sending test scores, assignments, and reports to students through Bb.	4.18	1.12	3	High
.4	I am satisfied with the ease of accessing the course content through the Bb software.	4.07	1.00	4	High
.13	I am satisfied with the open time available while learning through Bb.	4.06	1.04	5	High
.12	I am satisfied with the level of interaction with the course instructor through the Bb software.	4.05	1.04	6	High
.2	I am satisfied with sending information quickly to students through Bb.	4.02	1.11	7	High
.1	I am satisfied with the class discussions on the topic of the lecture through Bb.	4.01	1.09	8	High
.6	I am satisfied with the ease of browsing and navigating between pieces of content through the (Bb) software.	3.97	1.10	9	High
.8	I am satisfied that additional learning resources about the course have been provided to me through Bb.	3.95	1.12	10	High
.5	Feel satisfied with instant feedback and reinforcement with Bb.	3.92	1.08	11	High
.7	I am satisfied with the ease of understanding and learning through Bb.	3.90	1.08	12	High
.9	I am satisfied that you provide me with electronic links and videos that support the learning process through Bb.	3.88	1.04	13	High
.10	I feel satisfied with the assistant professor's help in solving the problems we face	3.87	1.11	14	High

	through the (Bb) software.				
	Total	4.03	0.83		High

Table (5) shows that the mean scores of the items representing the degree of satisfaction of undergraduate students in Al-Khafji University College with the Blackboard software ranged between (3.87 - 3.71), with a high evaluation score on all items. The tool as a whole got a mean score (of 4.03), a standard deviation of (0.83), and a high evaluation score.

Item (14), which states, "I feel satisfied with the (Bb) software because of the possibility of accessing it through a mobile phone or a computer," came in the first place, with an average score of (4.28), and a high evaluation score. Students can access the Blackboard software at the specified lecture time and at the specified exam time as well, and they did not face problems with that, as the technical support team at the university was addressing any problems drastically.

This was followed by item (11) which states, "I feel satisfied with the level of my achievement through the (Bb) software" with a mean of (4.27), and a high evaluation score. The researcher attributes this result to the advantages of the blackboard in managing the content of the educational process, as it helped greatly in learning and increasing the students' achievement, as the students were able to view the content of the course at any time and any place as well as communicate with the course professor and other students registered in the course, as the use of the Blackboard software The board facilitated the teaching process in light of the COVID-19 pandemic. The results of this study are consistent with the study of Al-Jarrah (2010) and the study of Al Randi and Aba Al-Khail (2016), which confirmed that students' attitudes towards blackboard software are positive. The last place came item (10), which states, "I feel satisfied with the assistant professor's help in solving the problems we face through the (Bb) software." with a mean score of (3.87) and a high evaluation score. There was extensive training for course professors about Blackboard software, which had a role in the course professor's knowledge of how to tackle simple technical problems that students face while entering the software and while submitting assignments, communicating, and performing tests.

It is clear from this that the degree of satisfaction of students increases with the use of the Blackboard software. We find that the results of the current study are consistent with the results of other research studies, such as Al-Dasmani (2017), who showed the attitudes of University of Jordan students towards the use of educational and distance learning management platforms during the Corona crisis were very positive. The study by Bui et al. (2020), revealed that there was a high degree of female students' satisfaction in a Vietnamese university with the experience of teaching and distance learning through the use of video conferencing software and platforms during the Corona Virus pandemic.

Also, we find that the results of the current study are consistent with the results of other research studies, including the study of Badawi (2010), which showed that the blackboard system provided students with opportunities to participate in teaching the unit through forums and discussion boards, which had an impact on the growth of positive trends towards e-learning. The results showed an increase in interaction and communication between them and the lecturer. It also agrees with Al-Sadhan's study (2015), and the results of his study showed that the general average of the attitudes of students and faculty members towards the use of the e-learning management system is positive.

Results related to the third question, which states: "Is there a statistically significant relationship between the attitudes of the female students of Al-Khafji University College towards using the Blackboard software in learning and the level of satisfaction among the female students?"

To answer the third question, the Pearson correlation coefficient was calculated between the attitudes of the female students at the University College in Khafji towards the use of Blackboard

software and the level of satisfaction among the students. The value of the correlation coefficient was (0.834) and at the level of significance (0.000), and this value indicates the existence of a positive direct relationship and a statistically significant at the significance level ($0.01 \geq \alpha$) among the study variables.

It is clear from this that the relationship is direct. The more the use of Blackboard software in the educational process, the greater the students' satisfaction with the education process in general, as a result of the positives of the Blackboard software on students in terms of high achievement and sending information to students quickly and easily and self-learning, and this was confirmed by the results of the study (Ojo and Olakulehin, 2006; Zhang and Yeung, 2005) which indicated the presence of positive trends among the study members and the Blackboard software.

Recommendations

In light of the study results, the researcher recommends the following:

1. Depending on Blackboard software in the teaching and learning process is so vital as it has many features that may be useful for university professors.
2. Conducting more practical, practical training for faculty members about the Blackboard software and the mechanism of employment in the educational process.
3. Training students on how to use the Blackboard software before starting teaching.
4. Encouraging faculty members to use the Blackboard system in the educational process.
5. Providing the basic supporting infrastructure for the Blackboard software comprehensively.

References:

- Almelhi, A. M. (2021). The Role of the Blackboard LMS in EFL course delivery during the COVID-19 Pandemic: Investigating attitudes and perceptions of faculty and students. *International Journal of English Linguistics*, 11(2), 46. <https://doi.org/10.5539/ijel.v11n2p46>
- Al-Randi, B., & Aba Al-Khail, A. (2016). Students' attitudes towards the use of the blackboard for e-learning by undergraduate students in the College of Social Sciences at Kuwait University. *Journal of Research in Library and Information Science, Information Systems and Services Research Center, Faculty of Arts, Cairo University*, (16), 30-329.
- Al-Mulhim, I., Al-Badr, M., & Al-Matahir, N. (2018). The reality of female students' use of the Blackboard Learning Management System in electronic courses at King Saud University. *Journal of Educational and Psychological Sciences: The National Research Center Gaza* 2(9), 28-51.
- Al-Manhrawi, D. (2015). The reality of the use of the teaching staff at the College of Education, University of Hail, of the Blackboard Learning Management System in light of the availability of e-learning competencies between reality and expectations. *Educational technology, Studies, and Research*, 25,91-126.
- Akkoyunlu, B., & Soyulu, M. Y. (2006). A study on students' views on blended learning environment. *Turkish Online Journal of Distance Education*, 7(3), 43-56.
- Al-Dasmani, A. (2017). Evaluating the experience of King Saud University in using the Blackboard e-learning management system. *Specialized International Educational Journal*, 6(3),61-71
- Alhussain, T. (2017). Measuring the impact of the blackboard system on blended learning students. *Learning*, 8(3).
- Al-Jarrah, A. (2011) Attitudes of University of Jordan students towards the use of Blackboard software in their learning. *Studies of Educational Sciences*. 38(4) 1293-1304

- Al-Juhani. L. (2020) The degree of female graduate students' satisfaction with the blackboard system and its use in their remote emergency teaching in the light of the information system success model of Dillon and McLean. *International Journal of Research in Educational Sciences* 3(4) 260-304 <https://doi.org/10.29009/ijres.3.4.6>
- Al-Sadhan, A. (2015). Attitudes of students and faculty members at the College of Computer and Information Sciences at Imam Muhammad bin Saud Islamic University towards the use of the Blackboard e-learning management system and its relationship to some variables. *Journal of Educational Sciences. The Imam Muhammad bin Saud Islamic University of Saudi Arabia*, 2 (26), 223-279.
- Badawi, M. (2010) The effectiveness of teaching a proposed unit through e-learning in developing the skills of using content management programs and modifying patterns of cognitive preference among students of educational diploma and their attitudes towards it. *Journal of the College of Education*, 2(144).
- Bradford, P., Porciello, M., Balkon, N. and Backus, D. (2007) .The blackboard learning system: The be-all and end-all in educational instruction? *Journal of Educational Technology Systems*, 35, 301-314. <https://doi.org/10.2190/X137-X73L-5261-5656>
- Bui, T. H., Luong, D. H., Nguyen, X. A., Nguyen, H. L., & Ngo, T. T. (2020). Impact of female students' perceptions on behavioral intention to use video conferencing tools in COVID-19: Data of Vietnam. *Data in Brief*, 32, 106142. <https://doi.org/10.1016/j.dib.2020.106142>
- Fazio. R., & Roskos, E. (2008). *Acting as feel: When and how attitudes guide behavior*. Allyn & Bacon.
- Ghazel, M. (2005). Learning management systems and their characteristics. Riyadh Electronic Schools Symposium held in Riyadh schools from 10/12 to 10/15/2005, Kingdom of Saudi Arabia.
- Graham, C., Cagitay, K., Lim, B., Craner, J., & Duffy, T. (2001). Seven principles of effective teaching: A practical lens for evaluating online courses.
- Heidi, Y. J. T., & Neo, M. (2015). Exploring the use of authentic learning strategies in designing blended learning environments: A Malaysian experience. *Journal of Science & Technology Policy Management*.
- Hong, K. S., Ridzuan, A. A., & Kuek, M. K. (2003). Students' attitudes toward the use of the Internet for learning: A study at a university in Malaysia. *Journal of Educational Technology & Society*, 6(2), 45-49.
- Khas, H., & Al-Hadrami, A. (2006) The Effectiveness of Teaching Accounting Principles (1) using educational materials prepared on the information network according to the Blackboard system. *The Jordanian Journal of Business Administration*, 213-223
- Liang, J. C., & Tsai, C. C. (2009). The information commitments toward web information among medical students in Taiwan. *Journal of Educational Technology & Society*, 12(1), 162-172.
- Liaw, S. (2008). Investigating students' perceived satisfaction, behavioral intention, and effectiveness of e-learning: A case study of the Blackboard system. *Comput. Educ.*, 51, 864-873.
- Masion, M. (2015). Integration of blackboard in the online Learning environment. *Journal of instructional pedagogies*, (16),1-10.
- Nassar, A. A., & Rajeh, M. T. (2022). Blackboard in dental education: Educators' perspectives during the COVID-19 Pandemic: A qualitative study. *Advances in Medical Education and Practice*, Volume 13, 629–639. <https://doi.org/10.2147/amep.s367221>
- Ojo, D. O., & Olakulehin, F. K. (2006). Attitudes and perceptions of students to open and distance learning in Nigeria. *The International Review of Research in Open and Distributed Learning*, 7(1). <https://doi.org/10.19173/irrodl.v7i1.313>

- Olsen, F. (2001). Getting ready for a new generation of course-management systems. *Chronicle of Higher Education*, 48(17).
- Pittinsky, M. (2004). The networked learning environment. *Stepping Beyond Courses to a More Expansive Online Learning Experience*.
- Shu, H0., Siu, M., & Gwo, D. (2006). Surveying instruction and learner perception of e-learning. *Journal of Educational Technology* 53(5)261-266.
- Torrisi, G. (2010). Collaborative learning strategies in a blended international context. *Journal of e-Learning and Knowledge Society*, 6(3), 71-81.
- Zhang, W. Y., Perris, K., & Yeung, L. (2005). Online tutorial support in open and distance learning: Students' perceptions. *British Journal of Educational Technology*, 36(5), 789-804.