Research Journal in Advanced Humanities

RJAH

https://doi.org/10.58256/svbpdm43

Open Access

Check for updates

RESEARCH ARTICLE

Section: *Digital Humanities*

The interactive relationship between confidence and academic achievement as indicators of the quality of the e-learning program

Shoeb Saleh[1] **and Khaled Ahmed Abdel-Al Ibrahim**[2]*

[1]The National Research Center for Giftedness and Creativity, King Faisal University, Saudi Arabia

[2]Department of Educational Psychology, Prince Sattam bin Abdulaziz University, Al-Kharj, Saudi Arabia

*Correspondence: ka.ibrahim@psau.edu.sa

ABSTRACT

This study sought to study the interactive relationship between confidence and academic achievement as qualitative indicators of the quality of the electronic program. An educational program based on the Moodle platform was designed in the course "Methods of Teaching Sharia Sciences", and it was administrated to a group of students, where the variables of confidence and achievement were measured before and after the experimental intervention, and the results were compared with a control group. Adhering to the rapid technological transformations taking place in higher education, it has become necessary to reconsider the determinants of the quality of e-educational programs, not only regarding the content or the technical structure but also by focusing on the psychological and social components that contribute to the effectiveness of the digital educational process. Amongst these prominent components is confidence which represents a dynamic element that reflects the learner's willingness to engage positively in the virtual learning environment.

The results showed the effectiveness of the program in increasing the level of confidence in e-learning, which was manifested in several dimensions: confidence in the system, confidence in the content, confidence in the teacher, and confidence in the safety of the learning environment, and this was positively reflected in improving academic achievement in a statistically significant method. The study also proved that confidence is not an independent variable, but rather it is an interactive variable that affects and is affected by the context of learning, and constitutes a basic structure that affects motivation, engagement and academic perseverance. The study results recommend the need to include the dimension of confidence in models, in evaluating the quality of electronic programs and in designing educational strategies that focus on developing a positive and settled relationship between the student and the digital educational system, such as immediate technical support, effective human interaction, and ensuring transparency and clarity in the course requirements. It also calls for a holistic vision of quality that is not limited to final academic performance but extends to creating a learning environment that develops confidence and supports learner autonomy and self-responsibility.

KEYWORDS: confidence in the e-learning environment, academic achievement, quality of e-learning, digital learning environments, learning management system (Moodle)

Research Journal in Advanced Humanities

Volume 6, Issue 2, 2025

ISSN: 2708-5945 (Print)

ISSN: 2708-5953 (Online)

ARTICLE HISTORY

Submitted: **04 April 2025**

Accepted: **30 May 2025**

Published: 24 **June 2025**

HOW TO CITE

Saleh, S., & Ibrahim, K. A. A.-A. . (2025). The interactive relationship between confidence and academic achievement as indicators of the quality of the E-learning program. *Research Journal in Advanced Humanities*, *6*(2). https://doi.org/10.58256/svbpdm43

Published in Nairobi, Kenya by Royallite Global, an imprint of Royallite Publishers Limited

Introduction and Context of the Problem

The role of education is to empower the student with knowledge and independent study skills so that he can become equipped with the necessary experiences and abilities for the new age. Hence, student's role turns from the passive recipient to the enlightened researcher who produces knowledge, and the creative explorer of technology, and this is consistent with saying: that the curriculum does not mean books, information and knowledge only, but also it is an industry that aims for human development. Curriculum represents also objectives, content, teaching methods, and evaluation. In addition to that It is imperative that the curriculum fosters students' self-learning skills, enabling them to keep autonomously pace with ongoing advancements and innovations in their field of specialization, through effective utilization of computer technologies.

It is noteworthy that the knowledge and information acquired independently by the student are unforgotten for a lifetime. Therefore, the learning system must be closely connected to the learner's environment and society, ensuring that the educational process is perceived as meaningful and relevant. These factors present significant and rapidly evolving challenges for educators and curriculum designers, necessitating continuous professional development, ongoing exposure to new knowledge, and the capacity for self-renewal. Consequently, there is an urgent need to shift from traditional curriculum models toward more dynamic frameworks that can effectively respond to contemporary development.

Undoubtedly, the integration of modern technologies and digital media into the teaching and learning processes is no longer a luxury, but rather a necessity imposed by the tremendous technological advancements brought about by the era of information and e-learning. Among these developments is the increasing reliance on digital programs and electronic curricula, either partially or entirely, within the educational process (Miller, E. B., 1996, pp. 95–96). Consequently, the roles of both teachers and learners have undergone significant transformation, and the skills and responsibilities required of them have evolved accordingly.

Today, all stakeholders in the educational system face unprecedented and rapidly changing challenges, which demand continuous engagement with new knowledge, ongoing self-development, and adaptability to be along with the times. Individuals could now learn not only to know but also to work, collaborate with others, and establish a meaningful presence that meets the demands of contemporary life.

E-learning has witnessed great development during the past two decades, as it has become a strategic choice for many educational institutions in the context of the digital revolution and globalization. E-learning is characterized by its ability to transcend the constraints of time and space, which has provided greater opportunities for learners to obtain education in a flexible and innovative way. However, the success of this type of education depends heavily on the quality of the educational programs offered, which is measured by a set of indicators that include trust, interactive communication, and academic achievement. (Wang, 2014).

E-learning program quality indicators are an important means for measuring and analyzing the efficiency and effectiveness of e-learning programs. These indicators contribute to the evaluation of the elements of the educational program in terms of content, educational design, interaction, techniques used, and user experience. It also helps identify strengths and weaknesses to improve programs and ensure an optimal learning experience (Garrison, Anderson, & Archer, 1999). Quality indicators involve a wide range of aspects such as clarity of learning objectives, content alignment with learners' needs, interactivity of educational tools, and flexibility of program access. In addition, indicators focus on elements such as learner support, continuous assessment, and the use of technology to enhance interaction and participation (Al-Adwan, Al-Adwan, & Smedley, 2013).

In this context, these indicators aim to establish a comprehensive framework that can be used to ensure the quality of e-learning programs and to deliver a learning experience that meets the expectations of both learners and instructors. By analyzing and relying on these indicators, educational institutions can achieve a high level of effectiveness in delivering e-learning and enhancing their outcomes.

Confidence represents a vital element in the success of e-learning programs, as it is linked to the extent to which students and faculty members are convinced of the platform's effectiveness and its ability to provide comprehensive educational experience. According to a study by Dörnyei (2020), confidence depends on several factors, including content credibility, platform interactivity, and faculty support. This confidence can be strengthened through transparency, continuous student support, and data security assurance.

Academic achievement serves as a key criterion in measuring the success of the educational process, as it reflects the extent to which students benefit from the educational program. Research by Bernard et al.

(2020) indicates that designing interactive learning activities, providing appropriate digital tools, and utilizing continuous feedback techniques contribute to improving academic achievement in e-learning environments.

Studies have shown that the relationship between confidence and academic achievement is interactive in nature, with each reinforcing the other. Students who trust the effectiveness of the educational program are more willing to engage with the learning content, which positively impacts their academic performance. Conversely, strong academic performance enhances trust in the quality of the program. According to Lin & Wang (2021), this relationship is dynamic, whereby improvement in one aspect can lead to enhancements in the other.

Although e-learning is one of the innovative solutions that have changed the learning setting in the digital age, it provides flexible and accessible learning opportunities for all. However, the success of e-learning programs depends not only on the provision of digital content, but it depends on a set of factors that affect its quality and effectiveness. Among these factors, confidence in e-learning and the level of academic achievement of learners stand out as key indicators that reflect the quality of the e-learning program (Al-Fraihat et al., 2020). Research on these indicators is becoming increasingly important due to their pivotal role in measuring the ability of electronic programs to achieve learning objectives and enhance the user experience. Gefen et al. (2003) point out that confidence in the educational platform directly affects the level of student engagement, course commitment, and academic success, making it a key factor in evaluating the quality of e-learning.

Research regarding confidence in e-learning and academic achievement is essential for understanding and improving the quality of e-learning programs. Confidence plays a central role in enhancing the user experience, increasing course retention rates, and achieving higher academic success. Meanwhile, academic achievement reflects the effectiveness of e-learning programs and their impact on learning outcomes. Accordingly, educational institutions can enhance the quality of their programs by advancing technology, improving content quality, supporting student–teacher interaction, and providing effective support services. These efforts lead to increased levels of trust and academic achievement, resulting in a more efficient and successful e-learning experience. .

As previously mentioned, the current study aims to identify the interactive relationship between confidence and academic achievement as indicators of the quality of the e-learning program, through the preparation of an electronic program for methods of teaching Islamic legal sciences using the Moodle system, and measuring the effectiveness of this program in developing confidence in e-learning and achievement among students of the College of Education at King Faisal University.

Questions of the Study

From the previously mentioned context of the study problem. The study attempts to answer the following questions:

1. What is the suggested electronic program for the course of methods of teaching Islamic Legality sciences using the Moodle system?
2. What is the effectiveness of the suggested electronic program for the course of methods of teaching Islamic Legality sciences using the Moodle system in developing confidence in e-learning among students of the Faculty of Arts at King Faisal University?
3. What is the effectiveness of the suggested electronic program for the course of methods of teaching Islamic Legality sciences using the (Moodle) system in developing the achievement of students at the College of Arts at King Faisal University?
4. What is the interactive relationship between confidence and academic achievement as indicators of the quality of the suggested electronic program for the course of methods of teaching Islamic Legality sciences using the (Moodle) system?

Objectives of the Study

1. Developing a suggested e-learning program for the "Methods of Teaching Islamic Studies" course using the Moodle platform.
2. Examining the effectiveness of the suggested e-learning program for the "Methods of Teaching Islamic Studies" course using the Moodle platform in developing confidence in e-learning among students at the College of Arts at King Faisal University.

3. Investigating the effectiveness of the suggested e-learning program for the "Methods of Teaching Islamic Studies" course using the Moodle platform in enhancing academic achievement among students at the College of Arts at King Faisal University

Significance of the Study

The significance of this study lies in exploring how factors of confidence within the digital learning environment influence learners' academic outcomes—an area of study situated at the intersection of psychological and technological dimensions that shape the quality of digital education. Evaluating the quality of e-learning programs is essential for enhancing their effectiveness; adopting two main indicators—confidence and academic achievement—enables a deeper understanding of the interactive relationship between the psychological environment (confidence) and learners' actual performance. This approach helps identify the strengths and weaknesses of e-learning programs and supports the implementation of corrective measures for their improvement.

Theoretical Framework

With the rapid development of digital technology and the expansion of the use of e-learning, it has become necessary to understand the factors that affect the quality of e-learning programs. Today, e-learning is one of the most prominent developments in the global education sector, as it has enabled educational institutions to provide flexible and appropriate educational content for different ages and cultural groups. With the development of e-learning tools and technologies, the focus has increased on developing high-quality educational programs that balance digital interaction with educational efficiency.

Recent years have witnessed a radical shift in teaching methods with the spread of e-learning, which has become a strategic alternative or complement to traditional education. The increasing reliance on e-learning programs during global crises, such as the COVID-19 pandemic, represents a flexible choice that allows the continuity of education while reducing the challenges associated with time and place. However, the success of these programs depends heavily on multiple factors, most notably confidence and academic achievement, which are used as indicators to measure the quality of e-learning.

This study draws on contemporary educational theories such as the Community of Inquiry model, which focuses on the interaction between the elements of e-learning: social presence, educational presence, and cognitive presence. This model suggests that confidence and academic achievement are linked to the ability of educational programs to achieve sustainable interaction and effective participation between students and teachers.

Confidence in e-learning is defined in the current study as: Various self-knowledge of seventh-level students at the College of Legality and Fundamentals of Religion at King Khalid University, constituting various sources about the nature of e-learning and its importance to them, and their ability of good performance through it, and is measured by the degree that the student gets on the scale of confidence in e-learning.

Confidence in the e-learning program indicates that users believe in the effectiveness and efficiency of the platform, which directly affects their incentive to use and adhere to it. According to the study of Pappas et al. (2020), confidence-building factors include technical reliability, content quality, and easy access to educational resources. Data shows that students who trust the e-learning platform are more motivated and engaged in educational activities.

Academic achievement is one of the main indicators used to evaluate the efficiency of e-learning programs. This achievement is measured by the level of students' performance on tests and assignments and their acquired skills. According to Means et al. (2021), students who interact intensively with electronic resources perform better academically than students in traditional learning environments, highlighting the importance of designing stimulating and effective learning platforms.

Studies have shown that the relationship between confidence and academic achievement is naturally interactive, as they reinforce each other. Students who trust the effectiveness of the educational program are more willing to interact with the educational content, which reflects positively on their academic level. In turn, good academic performance enhances confidence in the quality of the program. According to the Lin & Wang (2021) study, this relationship is dynamic, as one aspect can be improved to reinforce the other.

The literature also suggests that there is a mutual relationship between confidence and academic achievement, where they reinforce each other. Students who trust the learning platform are more willing to invest time and effort in educational activities, leading to improved academic achievement. On the other hand, high academic achievement supports their confidence in the quality of the program. The study of Kim et al. (2019) asserted that educational platforms that integrate student support and confidence-building strategies lead to improved academic performance and guarantee their continuous use of them.

For making the optimal use of e-learning systems to achieve competitive advantage, the educational institution must pay attention to the needs of learners, so that the learner feels the importance of learning materials and their influence on their educational performance. Besides, confidence and thorough comprehension of this process should be developed, so that teachers understand the necessity of this novice system and its effect on their work and lives, in addition to its profound impact on the competitive position of the educational institution (Al-Azab, 2003).

Al-Harithi (2002) asserts the need to move from the state of transmitting information or conveying the meaning we have to others to help others form their own meaning, as meaning is not transferred, but rather cultivated in the human soul in the light of its mental structure, cultural background and way of perceiving things. Therefore, the role of the teacher should shift from a transmitter of meaning to a facilitator of the process of meaning formation, by identifying the tasks required by this new role, the most prominent of which is the shift from accustoming learners to receiving information. To train them to develop thinking and make appropriate decisions for practical educational situations.

Hussain (2005) found that teachers must be well prepared to use online knowledge tools and resources in an integrated manner with the curriculum, leading to the achievement of the desired learning goals. The significance of this study stems from the need to understand how confidence and academic achievement affect the quality of e-learning programs, especially considering the increasing reliance on distance education because of the challenges posed by global crises such as the COVID-19 pandemic. By examining this relationship, it is possible to identify strategies for developing educational programs to ensure improved e-learning experience and enhance its learning outcomes.

Literature Review

Numerous studies have highlighted the importance of confidence in adopting and continuing e-learning across different models and approaches. Socio-technological frameworks point to a set of factors that stimulate confidence, including system quality, teacher communication style, privacy and security dimensions (Wang, 2014). Empirical studies have shown that students' previous experience with e-learning and their satisfaction with it significantly predict their level of confidence (Susan et al. 2024).

Moreover, confidence is a major predictor of the intention for the continuous use of electronic platforms (Jairak, Praneetpolgrang, & Mekhabunchakij, 2009), other studies have focused on confidence among students within virtual learning environments and the importance of transparent recommendation algorithms to enhance collaboration and engagement (Barbosa & Maciel,2025), studies also addressed the role of teachers' impressions related to system confidence and system management and their relationship to the intention to the continuous utilization of online educational technology (Bøe, 2018), Other studies have highlighted the role of confidence as a mediating variable between credential intent and learners' actual behavior in contexts such as Saudi Arabia (Khan et al., 2022).Finally, they have developed vital authentication systems such as TESLA to enhance confidence in online assessment and ensure the validity of students' identity and ownership of submitted works.

Bhattacharjee et al,2018 and Razak et al. (2021) conducted a study of 315 students to examine the role of confidence in predicting the intention to the continuous use of the e-campus platform. The results showed that confidence explains 22% of the variation in intention to continue, highlighting its importance as a psychological and social factor in virtual learning environments, and in a study of 870 students in medical and dental colleges in Saudi Arabia, the Expectations Confirmation Model (ECT) and Planned Behavior Theory (TPB) were combined to analyze the factors affecting student satisfaction and the intention to continue using e-learning. The results showed that satisfaction was the strongest factor influencing the intention to continue, followed by behavioral perceptions, attitudes and social norms.

Confidence has also been shown to enhance satisfaction, supporting continuity of use (Rajeh et al.,

2021), Tha et al. (2009) examined the effect of confidence among peers on their intention to utilize e-learning communities continuously. The results showed that confidence enhances knowledge sharing and the intention to continue, especially in environments that require interaction and collaboration between users, the study of Jo, (2025) showed that confidence enhances satisfaction and positive perceptions regarding the usefulness of e-learning systems, which supports the intention to continue using them, especially during periods of crisis such as the COVID-19 pandemic.

Previous studies indicate a composition of several frameworks and models to measure and develop confidence in e-learning, the most important of which is the socio-technical model for initiating confidence, which is based on 12 motivating factors grouped in the dimensions of "course design" and "privacy and security", and the "user confidence cloud" model to assess subjective and objective confidence with a matrix of capabilities, in addition to the role of confidence as an intermediate variable in the intention of adoption and actual behavior, as well as studying the characteristics of confidence among students across four main dimensions (efficiency, integrity, familiarity, and impersonal elements).

Studies on the importance of social factors and course design in covering privacy concerns and confirm that perceived confidence plays a major role in the continued use of electronic platforms and peer interaction, and these studies highlight the importance of confidence as an influential factor in the adoption and continued use of e-learning systems. Enhancing confidence requires institutional support, appropriate training, and quality assurance of e-learning systems.

Methodology of the Study

The current study utilized the descriptive and quasi-experimental approaches: The descriptive approach was used when developing the electronic program for methods of teaching Islamic legality sciences, the confidence scale in e-learning, the interactive communication scale and the achievement test. As for the quasi-experimental curriculum, it was used to determine the effectiveness of the electronic program for methods of teaching Islamic legality sciences using the system (Moodle) in developing confidence in e-learning and academic achievement among students.

Participants of the Study

The study participants' group was identified from the students enrolled in the seventh level at the College of Arts - King Faisal University - Kingdom of Saudi Arabia, and the number of students who regularly attend at this level of academic year was (120) students. These group subjects were divided into two groups: the experimental group who are instructed using electronic programs are (60) students, and the control group subjects who are instructed using the traditional method are (60) students. For the control group, the teaching content is in the form of papers.

Instruments of the Study

The study instruments consisted of the e-learning confidence scale as well as the achievement test. The stages of developing the study instruments are shown below in detail:

1.The E-Learning Confidence Scale

The e-learning confidence scale is developed according to the following steps (Sun & Rueda, 2020; Wu & Zhang, 2021; Zhao & Wang, 2022; Kuo & Chen, 2020; Chen & Huang, 2021; Anderson, et al, 2021; Park& Kim, 2021; Alraimi & Ciganek, 2022):

1.1 Objective of the scale: The scale aims to determine the level of confidence in e-learning among students of the seventh level of the College of Legality and Fundamentals of Religion at King Khalid University.

1.2 Formulation of the scale items: The scale items were formulated in the form of statements focusing on some aspects related to the learner's confidence in using e-learning, and five alternatives were formulated for each item of the scale, namely: (**I strongly agree - I agree - I am not sure - I disagree - I strongly disagree**).

1.3 Validity of the scale: The scale was subjected to a panel of jury members- specialists in educational technology - and the initial form of the scale was modified in the light of their viewpoints by deleting or adding some items.

1.4 Calculation of scale reliability: The reliability of the scale was calculated using the Cronbach alpha coefficient, which depends on the method of variance, and the scale reliability coefficient was 0.79, which is appropriate and reliable factor.

1.5 Scale Duration: The time to answer the scale items were calculated by calculating the averages of the time of the first student who finished answering the scale items and the last student who finished answering the scale items and the average response time for all test items was (45) minutes.

2. The Achievement Test

2.1 Objective of the test

The aim of this test was to measure the level of achievement of students of the seventh level at the Faculty of Arts at King Faisal University in the Kingdom of Saudi Arabia in some subjects of the course of methods of teaching Sharia sciences prescribed for them.

2.2 Content of the Test

The test in its initial form included an instruction card that shows students how to deal with the item of each test, how to answer the item of each of them, and how to answer in the automated correction papers, and the researcher took into account that these instructions are obvious and written in an easy and appropriate language for students. The test included a set of questions that were divided into two parts; the first part is for true and false (30) questions, and the second part is for multiple choice (30) questions, and this test was restricted to the topics of the teaching methods course Islamic Legality Sciences Course for students of the seventh level at the Faculty of Arts at King Faisal University.

2.3 Validity of the Test

The test was submitted to a panel of jury members in EFL curricula and instruction (7) to whom four faculty members specialized in psychology were added , to state their opinions on the suitability of the test for its objective, the clarity of its instructions and vocabulary, and its suitability for students of the seventh level of students of the Faculty of Literature at King Faisal University. The jury members pointed to the modification of the wording in some questions, and the amendment of the order of some questions, and these observations were taken. This step also resulted in clarity of instructions, test questions, and suitability for its objectives.

2.4 Reliability of the Test

The test was administrated again to the same pilot group within two weeks, and it was taken into account that the conditions of the administration are similar to the conditions of the first one in terms of its time, and by calculating the correlation coefficient between the students' scores in the administration using the Pearson equation, the test reliability coefficient was equal to (0.81%), which is a proper rate, which confirms the validity of the test for administration. Hence, the achievement test in its final form became valid for administration, and it consists of (60) questions, (30) multiple choice questions, (30) true and false questions.

Results of the Study

To answer the study questions, the data obtained using descriptive statistical methods (mean scores, standard deviations, analytical methods) were processed by the T test at level D 01. 0, and the equation of the effect size of Carl, and the Black Modified Gain Ratio.

Answering the first question

Which states: "What is the suggested electronic program for the course of methods of teaching Islamic Legality sciences using the system (Moodle)"

Moodle system (model) concept, advantages and activities included

First of all, e-learning management systems in teaching or e-learning management systems (LMS), which are sometimes called virtual learning environments, (VLE), are meant as systems that work as a support and reinforcer of the educational process, so that the teacher puts educational materials such as lectures, exams, and resources on the system's site, and there are forum discussion rooms, and a portfolio for students' work (e- Portfolios) There are a set of important systems that help the teacher to manage courses, including: Moodle e-course management system, which is a system for managing open source courses, which teachers can use to create electronic courses, as it was designed according to educational bases to help teachers provide an e-learning environment (Dougiamas & Taylor, 2003; Al-Ajlan & Zedan, 2008; Cavus & Zabadi, 2014).

Stages of developing the electronic program

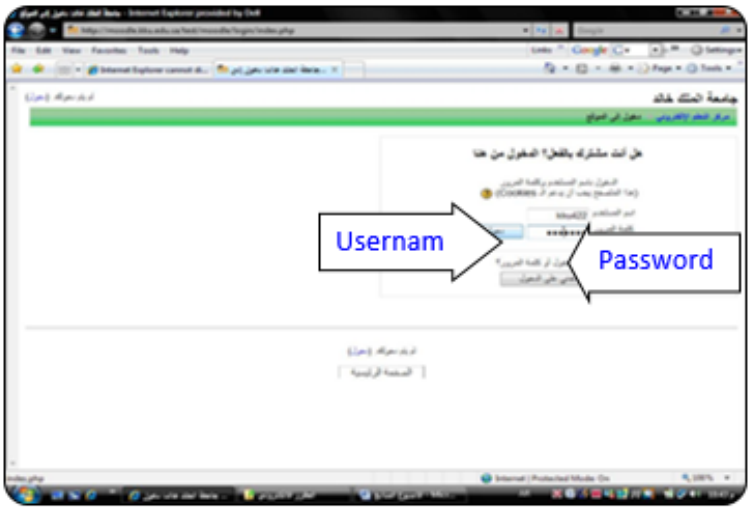
In the light of the literature of design and results of experimental intervention materials - the subject of research - the researcher reviewed many models of design and production of educational programs in general and educational computer programs in particular, and a suggested model consisting of several stages was designed as follows:

1. The stage of study, analysis and goal setting.
2. The stage of instructional design.
3. Interactive communication design stage.
4. The first production stage.
5. Experimentation and modification phase (exploratory experiment of the program and arbitration).
6. The final production stage.
7. The stage of adding the program to the Moodle system.

Description of the Program

After the suggested electronic program reached its final form, and after the researcher added the contents of the suggested electronic program for the course of methods of teaching Islamic Legality sciences to the Moodle system , the following is a model for the description of the program represented by a quick presentation of some of the frames included in the suggested electronic program for the course of methods of teaching forensic sciences using the Moodle system as contained in the body of the electronic program.

✓ The login screen of the electronic program contains the username and password to enter the program, noting that the username and password have been made for each student. As in **Figure (1).**



✓ The opening screen of the electronic program as in the corresponding form and contains the title of the course name, the name of the researcher and a brief description of the concepts included during the methods of teaching Islamic Reality sciences as in **Figure (2).**

Figure (2) Electronic program opening screen

Answering the second question

Which states: "What is the effectiveness of the proposed electronic program for the course of methods of teaching Islamic Legality sciences using the Moodle system in developing confidence in e-learning among students of the seventh level at the Faculty of Arts at King Faisal University?"

To answer this question, the researcher calculated the differences between the pre- and post-performance of seventh-level students at the College of Arts at King Faisal University - the research group - in the scale of confidence in e-learning, and the following table shows these results: **Table (1)**

Percentages of students' mean scores on pre- and post-administration E-Learning Confidence Scale

Data	No of Students	Mean Scores	Standard Deviation	Percentage of Mean	Maximum Limit of the scale
Pre-testing Control Group	60	45.1	8.4	27.33	165
Pre-testing Experimental tribal Group	60	47.3	8.3	28.66	
Post-testing Control Group	60	49.6	8.17	30.06	
Post-testing Experimental tribal Group	60	119.8	6.6	72.60	

It is clear from Table (1) that the mean scores of students in the pre-testing on the scale of confidence in e-learning for the control group is (45.1) scores by (27.33), and the experimental group is (47.3) and by (28.66). As for the post-testing, it is also clear from the table (1) that the mean scores of students in the post-testing on the scale of confidence in e-learning for the control group are (49.6) scores by (30.06), and the experimental group is (119.8) and by (72.60).

To demonstrate the effectiveness of the suggested e-program in developing confidence in e-learning, Blake's adjusted gain equation was used, which indicates that if the rate of adjusted gain falls between zero and the correct one, it can be judged that the program is ineffective; this means that students were unable to reach 50% of the expected or targeted gain.

If the percentage of gain exceeds the correct one and does not exceed (1.2), this means that the percentage of adjusted gain has reached the minimum effectiveness; this indicates that students were able to reach more than 50% of the target gain, and this indicates that the effectiveness of the program is acceptable.

However, if the modified gain ratio exceeds (1.2) or more, it means that the modified gain ratio has reached the maximum effectiveness, which indicates that the program has achieved high effectiveness (Blake, 1974, 20-21).

The following table shows the adjusted gain ratio in the e-learning confidence scale, which the suggested

e-program targeted to develop among seventh-level students at the Faculty of Arts at King Faisal University in Saudi Arabia.:**Table (2)**

Blake's ratio to the effectiveness of the training program in developing confidence in e-learning among seventh-level students at the Faculty of Arts at King Faisal University

Data	Number of Students	Pre-testing mean scores	Post-testing mean scores	Maximum limit of the scale	Adjusted gain ratio
Experimental Group	60	45.1	49.6	165	0.06515
Control group	60	47.3	119.8	165	1.0552

It is clear from the previous table that the adjusted gain ratio for the group of students who did not undergo the suggested electronic program is (0.06515), which indicates the ineffectiveness of traditional education, as students were unable to reach 50% of the expected or targeted gains.

The ratio of modified gain for the group of students who were taught the suggested electronic program is (1.0552), and this means that the ratio of modified gain reached the minimum effectiveness, and this indicates that students were able to reach more than 50% of the target gain, and this indicates that the effectiveness of the suggested electronic program in developing confidence in e-learning among students of the seventh level at the Faculty of Arts at King Faisal University was acceptable because it is higher than the correct one, but it was not high, and thus the second question of the current study has been answered.

Answering the third question

Which states: "What is the effectiveness of the proposed electronic program for the course of methods of teaching Islamic sciences using (Moodle) in developing the achievement of seventh-level students at the Faculty of Arts at King Faisal University?"

To answer this question, the researcher calculated the differences between the pre- and post-testing of seventh-level students at the Faculty of Arts at King Faisal University - Research Group - in the achievement test in some subjects of the course of methods of teaching Islamic Legality Sciences, and the following table shows these results: **Table (3)**

Percentages of students' mean scores on pre- and post-testing in the achievement test

Data	Number of students	Mean Scores	Standard deviation	Percentage of Mean scores	Maximum limit of the scale
Pre-testing Control Group	60	10.3	23.3	17.16	60
Pre-testing Experimental tribal Group	60	10.5	23.3	17.50	
Post-testing Control Group	60	30.2	17.6	50.33	
Post-testing Experimental after me	60	49.8	11.3	83.00	

It is clear from Table (3) that the mean score of students on the achievement test in the pre-testing of the control group is (10.3) scores by (17.16), and the experimental group is (10.5) by (17.50). As for the post-administration, it is clear from the table that the mean scores of students on the test in the post-testing of the control group is (30.2) degrees by (50.33), and the experimental group is (49.8) and by (83.00), and to show the effectiveness of the proposed electronic program in developing achievement in some topics of the course of methods of teaching Islamic Legality Sciences among students of the seventh level at the Faculty of Arts at King Faisal University in the Kingdom of Saudi Arabia, the modified gain ratio for Blake was used.

The following table shows the ratio of adjusted gain in the achievement test, which targeted the suggested electronic program to be developed among seventh-level students at the Faculty of Arts at King Faisal University in Saudi Arabia.: **Table (4)**

Blake's ratio to the effectiveness of the suggested electronic program in developing achievement among seventh-

level students at the Faculty of Arts at King Faisal University

Data	Number of teachers	Pre-testing mean scores	Post-testing mean scores	Maximum limit of the scale	Adjusted gain ratio
Experimental Group	60	43.5	44.6	195	0.73206
Control group	60	45.4	149.6	195	1.44893

It is clear from the previous table that the adjusted gain ratio for the control group of students who did not undergo the suggested electronic program is (0.73206), which indicates the ineffectiveness of traditional education, as students were unable to reach 50% of the expected or targeted gains. The percentage of the adjusted gain for the group of students who were taught the suggested electronic program is (1.44893), which indicates that the effectiveness of the proposed electronic program in developing achievement in some topics of the course of methods of teaching Islamic Legality Sciences among students of the seventh level at the Faculty of Arts at King Faisal University in the Kingdom of Saudi Arabia was high because it is higher than (1.2), and thus the fourth question of the current research questions has been answered.

Answering the fourth question

Which states: "What is the interactive relationship between confidence and academic achievement as indicators of the quality of the proposed electronic program for the course of methods of teaching Islamic Legality Sciences using the system (Moodle): **Table (5)**

Pearson's correlation coefficient between students' scores on the confidence scale and the academic achievement test as an indicator of the quality of the electronic program

Correlation between students' scores on the confidence scale and the Academic Achievement Test	Pearson's correlation coefficient value	Significance level
	0.924**	0.01

It is clear from Table (5) that the value of the Pearson correlation coefficient between students' scores on the confidence scale and the academic achievement test (0.924), and this value indicates a statistically significant positive correlation at the level of significance (0.01), and this means that the higher the level of confidence in the electronic program, the higher the level of academic achievement they have.

Discussion of the Results

The results of the current study showed the effectiveness of the suggested electronic program using the system (Moodle) in developing confidence in e-learning and student achievement during teaching the course of Islamic Legality Sciences. Thess results are consistent with the results of: Abdul Hamid Bassiouni (2007), the study of (Primoz & Tomaz, 2007), the study of Abdullah Yahya Al Muhya (2006), and the study of Awad Hussein Al-Todari (2006), Yasser Saad Mahmoud Ahmed Ahmed (2006), Jamal Al-Sharqawi (2005), Iman Osta (2005), Jasser Al-Harbish (2003), Ahmed Al-Saei (2002), Muhammad Nabil Al-Atrouzi (2002), and Hassan Al-Batea Mohamed Abdel-Ati (2001).

The results of the study showed that there is a statistically significant interactive relationship between confidence in e-learning and academic achievement, which reinforces the hypothesis that confidence is a central element in enhancing the effectiveness of digital educational environments, and hence it is a qualitative indicator of the quality of the electronic program.

The results of the study indicate that confidence in the educational platform and the virtual environment directly affects the motivation of the learner, and the level of his/her involvement in the educational process. This is aligned with the findings of a study Al-Fadhli (2008), who confirmed that confidence in content and the ease use of the system affects learner satisfaction, and therefore academic performance, Gefen et al. (2003) pointed out in the context of their study on online education, that developing confidence includes cognitive, emotional and behavioral dimensions, all of which affect the student's willingness to employ technology in learning, which reflects positively on achievement.

The interactive relationship between confidence and achievement is a compound indicator of the quality of e-learning programs; confidence not only affects the extent to which the learner uses the system but extends to affect his ability to learn deeply and effectively. This result is supported by the TAM – Technology Acceptance Model which indicates that confidence is one of the main determinants of technology acceptance, which in turn is associated with achieving good academic results (Venkatesh & Davis, 2000), from this standpoint, the results of the current study confirm that achieving educational quality in the electronic environment requires not only an effective technical design, but also a supportive environment that develops confidence, and ensures students' sense of security and positive interaction, which is directly reflected in their academic achievement.

Recommendations of the Study

- E-learning developers should consider both psychological and technical aspects, through easy user interfaces, clear content, and human interaction (such as an online beacon), which enhances students' sense of confidence and connection to the platform.
- Developing digital self-efficacy among learners before engaging in electronic environments, as this has a direct effect on the level of confidence and achieving effective academic results.
- Encourage the use of interactive teaching strategies within learning management systems (such as forums, adaptive tests, simulations) that enhance student confidence and increase academic achievement.
- Add qualitative indicators such as confidence, satisfaction, and believing in the platform as tools to assess the quality of e-learning programs.
- Redesigning the content of e-courses according to the adaptive education model, so that the content adapts to the learner's skills and speed of understanding, which enhances his/her confidence in his/her ability to learn and increases achievement outcomes.
- Educational programs must consider the diverse learning styles of students (visual, auditory, sensory motor...) because developing confidence and achievement is affected by the degree to which the presentation style matches the student's preferences, which calls for a diversity of media and assessment methods.
- The use of motivation elements (such as badges, challenges, levels) contributes to enhancing the student's academic self-confidence and increases his engagement, thus reflecting positively on achievement.

Funding

1- This study is supported via funding from Prince Sattam Bin Abdulaziz University Project Number (PSAU /2025 /R/1446).

2- The authors acknowledge the Deanship of Scientific Research at King Faisal University, Saudi Arabia for financial support under annual research grant number Grant (KFU251481).

References

1. Abdelhamid Bassiouni (2007). E-Learning and Mobile Education, Cairo: Dar Al-Kutub Al-Alamia for Publishing and Distribution.
2. Abdullah Yahya Al-Muhya (2006). Quality in E-Learning: From Design to Teaching Strategies, International Conference on Distance Education from Tuesday2-7-29 March, Sultan Qaboos University, Muscat, Sultanate of Oman.
3. Ahmed Al-Saei (2002). The effect of the different styles of providing multimedia computer programs on the anxiety of learning through the computer and the attitude of educated students towards using it in education and on their achievement in the field of educational technologies, Journal of Education, Faculty of Education, Al-Azhar University, Issue 110, August, pp. 151-187.
4. Al-Adwan, A., Al-Adwan, A., & Smedley, J. (2013). Exploring students acceptance of e-learning using Technology Acceptance Model in Jordanian universities. *International Journal of Education and Development using ICT*, *9*(2).
5. Al-Ajlan, A., & Zedan, H. (2008, October). Why moodle. In *2008 12th IEEE International Workshop on Future Trends of Distributed Computing Systems* (pp. 58-64). IEEE.
6. Al-Azab, Iman Mohammed (2003). E-Learning – Introduction to Non-Traditional Training, Cairo: Arab Administrative Development Organization.
7. Al-Fadli, S. H. (2008). Students' perceptions of e-learning in Arab society: Kuwait University as a case study. E–Learning and Digital Media, *5*(4), 418–428.
8. Al-Fraihat, D., Joy, M., Masa'deh, R., & Sinclair, J. (2020). Evaluating E-learning systems success: An empirical study. *Computers in Human Behavior, 102*, 67-86.
9. Al-Harthy, Ibrahim Ahmed Muslim (2002). Training teachers to teach thinking skills in a cooperative learning style, Riyadh: Al-Shaqri Library.
10. Alraimi, K., Zo, H., & Ciganek, A. P. (2022). *Understanding the Role of Trust and Academic Achievement in E-learning Platforms: A Longitudinal Study.* Computers & Education, 170, 104234.
11. Al-Salman, S., Haider, A., & Hussain, A. (2021). *The Impact of Trust on Academic Performance in E-learning Programs: Evidence from University Students*. International Journal of Educational Technology, 18(4), 45–62.
12. Anderson, T., Rourke, L., Garrison, D. R., & Archer, W. (2021). *Assessing Quality in Online Learning: A Framework for Trust and Achievement Interaction*. The Internet and Higher Education, 25(3), 67–83.
13. Awad Hussein Al-Towdri (2006). Modern roles for the future teacher in the light of the electronic school, Saudi Society for Educational and Psychological Sciences (Justin) College of Education - King Saud University - Riyadh Thirteenth Annual Meeting.
14. Barbosa, M. P., & Maciel, R. S. P. (2025). Interpersonal Trust Among Students in Virtual Learning Environments: A Comprehensive Review. *arXiv preprint arXiv:2503.17976*.
15. Bernard, R. M., Borokhovski, E., Schmid, R. F., Tamim, R. M., & Abrami, P. C. (2020). *A Meta-Analysis of Blended Learning and Online Learning Effectiveness: A Review of Educational Outcomes*. Educational Technology Research and Development, 68(3), 1053–1076.
16. Bhattacharjee, S., Ivanova, M., Rozeva, A., Durcheva, M., & Marcel, S. (2018). Enhancing trust in eassessment-the tesla system solution. In *International Technology Enhanced Assessment Conference (TEA2018)*.
17. Bøe, T. (2018). E-learning technology and higher education: the impact of organizational trust. *Tertiary Education and Management*, *24*(4), 362-376.
18. Cavus, N., & Zabadi, T. (2014). A comparison of open source learning management systems. *Procedia-social and behavioral sciences*, *143*, 521-526.
19. Chen, J., & Huang, Z. (2021). *Exploring the Role of Academic Performance in Trust-Building for E-learning Environments*. Computers in Education, 34(1), 59–72.
20. Dörnyei, Z. (2020). *Motivation and Learning in the Digital Age: Enhancing Trust in Educational*

Platforms. Journal of Digital Education Research, 15(3), 120–135.
21. Dougiamas, M., & Taylor, P. (2003). Moodle: Using learning communities to create an open source course management system. In *EdMedia+ innovate learning* (pp. 171-178). Association for the Advancement of Computing in Education (AACE).
22. Garrison, D. R., Anderson, T., & Archer, W. (1999). Critical inquiry in a text-based environment: Computer conferencing in higher education. The internet and higher education, 2(2-3), 87-105.
23. Gefen, D., Karahanna, E., & Straub, D. W. (2003). Trust and TAM in online learning. *MIS Quarterly, 27*(4), 51-90.
24. Gefen, D., Karahanna, E., & Straub, D. W. (2003). *Trust and TAM in online shopping: An integrated model*. MIS Quarterly, 27(1), 51–90.
25. Hassan Al-Batea Mohamed Abdel Ati (2001). A suggested program to train teaching assistants and assistant teachers at the Faculty of Education, Alexandria University on some uses of the Internet according to their training needs, Master Thesis (unpublished), Faculty of Education, Alexandria University.
26. Hussein, Ahmed (2005). The challenges of using e-learning in an integrated manner in Egyptian schools, Educational Technology - Studies and Research, Institute of Educational Studies, Egyptian Society for Educational Technology, May, pp. 13-29.
27. Iman Osta (2005). Information and Communication Technology in Mathematics Education, Studies from Developed and Developing Countries. Education and Information Technology in the Arab Countries, Lebanese Organization for Educational Sciences, Yearbook4, pp. 357-381.
28. Jairak, R., Praneetpolgrang, P., & Mekhabunchakij, K. (2009, December). An investigation of trust in e-learning for instructors and students in private and public universities. In *Proc. 6th elearning for knowledge-based society conf., Thailand* (pp. 17-18).
29. Jamal Mustafa Al-Sharqawi (2005). Developing the concepts of teaching and e-learning and its skills among students of the College of Education in the Sultanate of Oman, Journal of the College of Education, Mansoura University, Issue 58, Part 2, Month 5, pp. 215-253.
30. Jasser Al-Harbish (2003). The experience of e-learning at the Technical College in Buraidah, the first global symposium on e-learning held by King Faisal Schools in Riyadh, from 21-23 April.
31. Jo, H. (2025). Determinants of continuance intention towards e-learning during COVID-19: An extended expectation-confirmation model. *Asia Pacific Journal of Education*, *45*(2), 479-499.
32. Khan, F., Gupta, N., & Swarup, C. (2022). Learners' perception, adoption intention, and adoption of e-learning technology: Measuring the mediating role of perceived trust. *Transylvanian Review*, *30*(1).
33. Kim, H., Lee, Y., & Jo, I. H. (2019). *Trust, Engagement, and Academic Achievement in Online Learning: A Structural Equation Modeling Approach*. International Journal of Educational Technology in Higher Education, 16(1), 1–18.
34. Kuo, F., Chu, S., & Chen, Y. (2020). *Trust in Online Learning Platforms: Key Factors and Implications for Practice.* Journal of Educational Technology, 45(2), 101–115.
35. Lin, X., & Wang, Y. (2021). *Trust and Academic Performance in Digital Learning Environments: An Analytical Perspective.* Journal of Digital Learning Research, 12(2), 59–74.
36. Lin, X., & Wang, Y. (2021). *Trust and Academic Performance in Digital Learning Environments: An Analytical Perspective.* Journal of Digital Learning Research, 12(2), 59–74.
37. Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2021). *Evaluation of E-learning Effectiveness: An Analytical Review.* Computers & Education, 108, 1021–1036.
38. Miller, E. B. (1996): "The Internet Resource Directory For K-12 Teachers and Librarians", 95/96 Edition. Englewood, CO: Libraries Unlimited, Inc. ISBN-1-3-366-5630, ED 389 330.
39. Mohammed Nabil Al-Atroni (2002). E-learning – one of the models of university education, the first annual Arab national conference of the Center for the Development of University Education at Ain Shams University, distance university education: a future vision, 17-18 December.
40. Pappas, E., Giannakos, M. N., & Sampson, D. G. (2020). *Building Trust in E-Learning: A Systematic*

Review. Educational Technology & Society, 23(2), 45–58.
41. Park, J., & Kim, S. (2021). *The Impact of E-learning Content Quality on Academic Achievement: Evidence from University Students.* Educational Technology Research and Development, 69(3), 15-29.
42. Primoz,L&Tomaz,P. (2007): "Practical e-learning for the faculty of mathematics and physics at the University of Ljubljana". Journal of knowledge and Learning Objects.3.
43. Rajeh, M. T., Abduljabbar, F. H., Alqahtani, S. M., Waly, F. J., Alnaami, I., Aljurayyan, A., & Alzaman, N. (2021). Students' satisfaction and continued intention toward e-learning: A theory-based study. *Medical education online*, *26*(1), 1961348.
44. Razak, F. Z. A., Rahman, A. A., & Abidin, M. Z. Z. (2021, February). The role of trust on continuance intention to use e-campus. In *Journal of Physics: Conference Series* (Vol. 1793, No. 1, p. 012023). IOP Publishing.
45. Sun, L., & Rueda, R. (2020). *The Role of Trust in Online Learning: An Exploratory Study of Student Engagement.* Journal of Educational Technology, 34(3), 45–58.
46. Susan, M., Winarto, J., Kambono, H., & Prayogo, E. (2024). How E-Learning Experience Can Explain Student Trust. *Review of Integrative Business and Economics Research*, *13*(4), 339-345.
47. Tha, K. K. O., Poo, C. C. D., & Yu, X. (2009). Understanding continuance intention in e-learning community. *AMCIS 2009 Proceedings*, 690.
48. Venkatesh, V., & Davis, F. D. (2000). A theoretical extension of the technology acceptance model: Four longitudinal field studies. Management Science, 46(2), 186–204.
49. Wang, Y. D. (2014). Building student trust in online learning environments. *Distance Education*, *35*(3), 345-359.
50. Wang, Y. D. (2014). Building Trust in E-Learning. *Athens Journal of Education*, *1*(1), 9-18.
51. Wu, P., Liu, Y., & Zhang, H. (2021). *Enhancing Academic Performance in E-learning Environments: A Multi-factor Analysis.* Computers & Education, 110, 1201–1213.
52. Yasser Saad Mahmoud Ahmed Ahmed (2006). The effectiveness of a suggested electronic program for refrigeration and air conditioning technology in developing technological enlightenment and technical creativity among students of industrial secondary education, PhD thesis (unpublished), Faculty of Education, Zagazig University.
53. Zhao, X., Li, J., & Wang, S. (2022). *Exploring the Dynamic Interaction Between Trust and Academic Achievement in Online Learning Environments.* International Journal of Digital Education, 19(2), 33–49.