

The Role of Applying E-learning in Developing Students' Academic Motivation

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ARTICLE INFORMATION

Original Research Paper

Received: 01/01/2024

Accepted: 04/04/2024

Published: 01/06/2024

Keywords:E-learning; Academic Motivation; Students.

Abstract

This study aims to know the role of the application of E-learning in developing students' Academic Motivation in light of a set of variables (Institute, Gender, University Stage). For this reason, the researcher relied on the descriptive approach for its suitability to the nature of the study, and the study sample consisted of 36 male and female students divided equally among some Institutes of Science and Technique of Physical and Sports Activities (Souk Ahras, Constantine, Tebessa), where they were randomly selected. The study data was collected using the questionnaire that the researcher built, which consists of 20 phrases, trying to find out the students' point of view on this topic, and to process the data he collected and in order to test the hypotheses, the Mann Whitney, Kruskal Wallis test was used. One of the most important results reached is that the role of the application of E-learning in the development of Academic Motivation is average, and that there are no statistically significant differences between students according to the variable of Gender, University Stage, and Institute.

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doi.org/10.5281/zenodo.15191351

1. Introduction

The rapid development of information systems and internet technology, not only makes a lot of progress in the multimedia industry, but also affects innovation in teaching methods, because of the development of technology will develop E-learning, where the learner and teacher will face new teaching and learning methods, in order to improve the effectiveness of learning (Lin, Chen, & Nien, 2014). As educational systems have begun to move towards providing high-quality inputs to obtain more quality outputs as a result of the requirements of society and the nature of the rapid changes in societies (Khaled Mouhamed & Abd El Salam, 2012).

The traditional education delivery system in universities has long been a classroom with a professor giving speech to students and students listening and taking notes, communication between the professor and students has been identified to be an important educational component in this presentation platform, novelties in education delivery systems such as interactive and reflective schools of thought, however, traditional attitudes towards education occur, technology proposes many new characteristics that can be applied to make education more interesting for learners, it is usually assumed that new technologies are taking place, many proponents of E-learning argue that everyone should be prepared with basic knowledge of technology, as well as used as a means of obtaining educational aims (Safiyeh rajaee, 2015).

E-learning is an education process that is facilitated and supported through the use of information technology and the internet, E-learning is an internet application that can communicate between students and teachers in the online classroom to overcome the constraints of time, place and circumstances, E-learning is associated with the term online learning, it is part of E-learning, which includes a series of applications and processes that use all electronic media to make traditional education more flexible, and this can improve students' understanding and interaction with the subject (Alin, Nunuk, & Agus, 2019). Where the Academic Motivation of students contributes to the acquisition of knowledge and is therefore of paramount importance for their future success, many factors affect students' motivation to learn, and the question of how to motivate a student to learn remains a big topic to research, in relation to teachers, their role in the educational process is to create a positive environment that encourages learning and student success in the long term, moreover, it is suggested that in order for students to increase their

knowledge and Academic Motivation they must be active in addressing this knowledge (Elshareif & Mohamed, 2021)

There are many theories about Academic Motivation, but this study is based on the theory of self-determination of Deci and Ryan (1985), where people can be classified based on three types of motivational orientation: internal, external, and a motivation (Amir Touraj, Nahid, & Mohammad Bagher, 2020). Individuals with intrinsic motives have a strong perception of self-esteem and self-determination, these people do not allow others or external factors to influence their performance, and tend to do specific tasks for personal pleasure and satisfaction, as for people with external motives they consider themselves worthy or independent, that is, external factors and other people play a crucial role in shaping their behaviors and decisions, and activities are carried out with the aim of gaining reward or avoiding punishment, the third orientation is the motivation in which there is no a relationship between a person's behavior and its consequences, and they consider forces beyond their control as the cause of their behavior (Amir Touraj, Nahid, & Mohammad Bagher, 2020).

1.1. Literature Review

This made the low levels of Academic Motivation among learners one of the problems that captured the attention of those in charge of the educational process because of its negative effects on the learner as an individual, the family, and the learning environment, including learners, teachers and desired aims that are not achieved for the direct communication group with this individual and on society as a whole as a major communication environment that includes these learners (Imane Khaled, 2019).

Through what we have touched on and based on previous studies on this subject, this research paper aims to know the role of the application of E-learning in developing Academic Motivation, as the study was applied to students of some institutes of science and techniques of physical and sports activities.

2. Method and Materials

2.1. Participants

The sample consisted of 36 applications a randomly selected sample, divided equally among the Institutes of Science and Techniques of Physical and Sports Activities (University of Constantine, University of Souk-Ahras, and University of Tebessa), with 12 students from each, table 01 presents the characteristics of the sample. As for the survey sample, it may consist of 12 male and female students from the University of Souk Ahras.

Table 1. Descriptive Statistics of Sample (N=36)

The characteristics	n (%)
Gender (%)	
Male	22 (61.1)
Female	14 (38.9)
Institute (%)	
Constantine	12 (33.3)
Souk-Ahras	12 (33.3)
Tebessa	12 (33.3)
University Phase (%)	
Master	19 (52.8)
Licence	17 (47.2)

Source : Spss²¹Program Outputs

2.2. Materials

The study questionnaire included 20 positive phrases which is divided into three axes (Intrinsic motivation, Extrinsic motivation, A motivation), that aimed to understand the student's perspective on E-learning and its effectiveness in developing Academic Motivation. The tool uses a triple Likert scale (Always = 3, Sometimes = 2, Never = 1) to answer the statements. The total score is the sum of all responses and ranges between 20 and 60. The scores are classified into three levels: low (20-33), medium (34-47), and high (48-60). The validity and reliability of the scale were confirmed through tables (02, 03).

Table 2. Validity of the Questionnaire in manner of Comparison of Extreme Groups

Comparison groups	N	Mean	Std Deviation	T-value	df	Sig
Lower group	12	11.58	2.11	3.062	11	0.011
Upper group	12	9.25	1.82			

Source: Spss²¹Program Outputs

Table 3. Reliability of the Questionnaire in Alpha-Crumbach Manner.

Crumbach's Alpha	N of items
0.79	20

Source: Spss²¹Program Outputs

2.3. Design and Procedure

For this study, a descriptive approach was employed to achieve its objectives. This approach aims to discover facts, accurately describe phenomena, and determine their characteristics quantitatively or qualitatively. It reveals the past state of phenomena and how they reached their current form, attempting to predict their future (Marwan, 2000). The study was conducted by distributing an electronic questionnaire to a sample of students from the Institutes of Science and Techniques of Physical and Sports Activities at three institutes. The questionnaire was answered over four days, from 22/12/2023 at 15:30 to 26/12/2023 at 14:28.

2.4. Statistical Analysis

The SPSS version 21 was employed in the study to extract descriptive statistics regarding the sample and analyze the psychometric properties of the tool. Furthermore, the Mann-Whitney test was conducted to determine the disparities between groups based on Gender and University Stage, while the Kruskal-Wallis test was utilized to evaluate the differences between groups based on the Institute variable. It is noteworthy that the data did not normal distribution (this was confirmed by a test Shapiro-Wilk $P > 0.05$).

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3. Results

3.1. The Role of applying E-learning in developing Academic Motivation (level) :

Table 04: Axes arrangement of Academic Motivation

Questionnaire axes	Degrees	Mean	Std. Division	Percent	Arrangement of axes
Intrinsic motivation	574.00	15.94	2.55	36	1
Extrinsic motivation	571.00	15.86	2.46	35.80	2
A motivation	450.00	12.50	2.03	28.2	3
Academic Motivation	1595.00	44.31	4.96	100	-

Source: Spss²¹Program Outputs

3.2. Studying the differences between student's answers :

A. According to the Gender variable :

Table 05: Shows the differences between students by Gender variable.

Statistical Operations					
	Medium Rank	N	U de Mann-Whitney	Z	Sig
Male	18.25	22	148.5	-0.180	0.857
Female	18.89	14			

Source: Spss²¹Program Outputs

B. According to The University Phase :

Table 06: Shows the differences between students by University Phase variable.

Statistical Operations					
	Medium Rank	N	U de Mann-Whitney	Z	Sig
Master	17.68	19	146.0	-0.494	0.621
Licence	19.41	17			

Source : Spss²¹Program Outputs

C. According to According to The Institute :

Table 06: Shows the differences between students by The Institute.

Statistical Operations					
	Medium Rank	N	Kruskal Wallis (Khi-deux)	df	Sig
Souk-Ahras	18.92	12	5.06	2	0.08
Tebessa	23.08	12			
Constantine	13.50	12			

Source : Spss²¹Program Outputs

4. Discussion

Today is the age of information technology, and one of its results is the transformation of educational practices in the form of E-learning and online education, studies have shown that 80% of what is taught in traditional education is completely forgotten in 8 weeks, in the other hand, the traditional method encourages learners to adopt passive learning attitudes, does not take into account individual differences and the needs of learners, ignores problem-solving, creative thinking, and other high-level cognitive skills, and is usually unproductive (Button, Harrington, & Belan, 2014).

Daniels, Martin, and Ritzhaupt have shown that the application of multimedia technology in education is effective in students' academic development because multimedia-assisted learning leads to faster information processing, accelerated learning, improved cognitive skills in learners, and provides reasons for their academic progress (Ritzhaupt, Martin, & Daniels, 2016).

Although many studies have shown that E-learning can enhance students' Academic Motivation (Elfaki, Abdulraheem, & Abdulrahim, 2019), (Makhmbetova, Zhiyenbayeva, & Ergesheva, 2021), and that the motivation for online study is higher than when using a whiteboard and projector in the department (Alin, Nunuk, & Agus, 2019), The results of this study do not seem to confirm this position, as the results found that the role of applying E-learning to the development of Academic Motivation among students is negative (medium level). The differences between the answers according to the variable of Gender; University Stage; and Institute are evidence that no variable affects the results. Our study agreed with the study of (Anna, Gulnara, Liudmila, & Alisa, 2022).

One could argue that technical problems such as poor internet connectivity, for example, can contribute to a low level of learning motivation in students, for this very reason learners must receive an optimal amount of high-quality information for self-study because they may express growing concerns and concerns about the large volume of educational materials to cover on their own (Anna, Gulnara, Liudmila, & Alisa, 2022).

Therefore, faculty members must develop strategies to increase the involvement of students in electronic activities, in addition to conducting courses to support the students and introduce them to the importance of E-learning and how to use it.

5. Conclusion

Academic Motivation is a very important factor and can contribute to improving the quality of education, in this paper, the role of applying E-learning to develop students' Academic Motivation was researched, by distributing a questionnaire to find out the student's points of view on this topic, the results showed that the level of this role is average, and more specifically that students see that the impact of E-learning on the development of Academic Motivation in an average manner is not very effective or negative, as for the differences between students according to the variable of the Institute; Gender and University Stage, there are no differences, meaning there is no other factor that affects the result, as more attention must be paid to E-learning and make it an effective environment for students to raise Academic Motivation.

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