

**The role of the Google Classroom platform in developing e-learning
from the point of view of professors of the Faculty of Economics at. the
University of Ghardaia**

دور منصة google classroom في تطوير التعليم الالكتروني من وجهة نظر اساتذة كلية الاقتصاد بجامعة غرداية

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Abstract:

The study aims to know the attitudes of professors of the Faculty of Economics at the University of Ghardaia regarding the role of the Google Classroom platform in developing e-learning. To achieve the main objective of the study, the descriptive approach (case study approach) was used. To collect primary information, a questionnaire was designed and distributed to the study sample, which numbered 30 individuals. The study concluded To the following results : There is an impact of the Google Classroom platform in developing e-learning, and the impact on the professor and student had a significant impact on this. The study recommended the mandatory necessity of holding periodic training courses for learners and teaching staff, in order to develop their performance skills in using modern technology means in the education process.

Keywords: e-learning, Google Classroom platform, higher education institution, technology.

JEL classification codes: D83, M15, I23, C6

ملخص:

تهدف الدراسة إلى معرفة اتجاهات أساتذة كلية الاقتصاد بجامعة غرداية حول دور منصة google classroom في تطوير التعليم الالكتروني، ولتحقيق الهدف الرئيسي للدراسة تم استخدام المنهج الوصفي (منهج دراسة حالة) وجمع المعلومات الأولية تم تصميم استبيان وتوزيعه على عينة الدراسة البالغ عددها 30 مفردة وقد توصلت الدراسة إلى النتائج التالية: إن هناك تأثير لمنصة google classroom في تطوير التعليم الالكتروني وكان لبعد التأثير على الاستاذ والطالب الأثر الكبير في ذلك وأوصت الدراسة بضرورة إلزامية عقد دورات تدريبية دورية للمتعلمين وهيئة التدريس، قصد تنمية مهاراتهم الأدائية في استخدام وسائل التكنولوجيا الحديثة في عملية التعليم .

الكلمات المفتاحية: تعليم الالكتروني، منصة google classroom ، مؤسسة التعليم العالي، تكنولوجيا (s)

تصنيف JEL: C6، I23، M15، D83

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1-Introduction .

The use of educational platforms in teaching and learning processes has become a necessity imposed by technological developments, which has posed more challenges for teachers to be more informed and self-developed to keep pace with the times.

E-learning platforms provide communication between all parts of the educational system. They consist of many tools and programmes, all of which perform the functions of e-learning management on the web. They are effective e-learning tools that greatly contribute to the effectiveness of the learning process and increase the participation of activities, interaction and cooperation between students and teachers in the process. It also provides an electronic learning environment that facilitates the process of learning lessons and equips students with skills that will help them acquire as many knowledge as possible and employ it in the future in order to develop themselves.

The digital educational platform google classroom in education provides educational inputs to various levels of study and curricula. These platforms provide students with various information and develop their skills. They provide free and accessible learning for all because of its impact on e-education by improving the educational process, upgrading the efficiency of the stadium and improving the student's skill.

1.1. Problems of study:

Based on the foregoing, the following issues may be raised :

What is the impact of the use google classroom platform on the development of e-learning from the point of view of the professors of the Faculty of Economics of the University of Ghardaia?

To discuss the main problems, the following sub-questions may be asked:

- What is the level of use of the educational platform google classroom at the Faculty of Economics of the University of Ghardaia?
- What is the level of application of e-education in the Faculty of Economics of the University of Ghardaia ?

- What impact the google classroom platform on the development of e-education in the Faculty of Economics at Ghardaia University From the professors' point of view ?

1.2 Study hypotheses :

To answer the problems and questions of the study, the following hypotheses can be suggested :

-There is a high level of use of the google classroom platform in the Faculty of Economics at the University of Ghardaia ;

-There is a high level of application of e-education at the Faculty of Economics at Gardia University ;

-There is a statistically significant impact of the use of the google classroom platform on the development of e-education at the Faculty of Economics at Ghardaia University;

1.3 Objectives of the study :

-Recognize the concept and characteristics of the google classroom platform;

-Identifying the concept and objectives of e-learning;

-Recognize the impact of the google classroom platform on the improvement of e-education in the Faculty of Economics, Commercial Sciences and Management Sciences from the point of view of professors;

1.4 Importance of the study:

a-Scientific importance: The current study derives its relevance from the topic's impact

google classroom platform on the development of e-education in the Faculty of Economics at Ghardaia University from the point of view of professors because it is important in improving the educational process in all its aspects.

b-Practical Importance : The study is important by highlighting the use of a platform in e-learning through the recent enhancement of the student's skill and proficiency and the use of ICT in the educational process efficiently.

1.5 Limits of the study: This study was identified in the following areas:

Substantive limits: The study was limited to studying the impact of the google classroom platform on the development of e-education at the Faculty of Economics at the University of Ghardaia.

Human boundaries: This study was limited to a random sample of professors at the Faculty of Economics of the University of Gardia, where the total sample was estimated to be 30 professors.

Spatial boundaries: This study was piloted by the Faculty of Economics of the University of Ghardaia.

Time limits: The study was conducted in October 2023.

1.6 Approach: For the purpose of familiarizing ourselves with the research and response aspects of the problem, we used the descriptive approach by identifying the theoretical aspect of google classroom and e-education and relying on relevant references, books and articles and a case study approach in the applied aspect based on spss24.

2. Previous studies:

2.1 Study by Noura Khairy and Hala Daghaman (2022), entitled Moodle platform for e-learning and its role in supporting university education among university students, it aimed to know the role that the Moodle e-learning platform plays in supporting education from the point of view of university students, so that the research vocabulary was estimated at 100 items, and the electronic questionnaire was based on to collect information and use the statistical program SPSS for analysis. The study concluded that e-learning is an inevitable necessity in the Algerian university, although it faces some difficulties. The study recommended the necessity of conducting training courses for students and professors on how to deal with the Moodle platform, with the need to spread the culture of e-learning in university institutions.

2.2 Study by Hamila Ben Amour and Fawzia Balahji (2022), entitled difficulties in using the distance education platform (Moodle) from the point of view of university students. it aimed to reveal the difficulties of using the distance education platform (Moodle) from the point of view of university students, so that the research vocabulary was estimated at 150 items, and the questionnaire was based on collecting information and on the statistical program SPSS for analysis. the study found difficulties in protecting lessons by professors in addition to weak training and recommended The study indicates the need for

broader attention to improving the Moodle platform in terms of its use mechanism and integrating technology into university courses in order for students to benefit from it.

2.3 Study by Hamila Ben Amour and Fawzia Balahji (2022), entitled The role of digital platforms in supporting university distance learning in light of the spread of the Covid-19 pandemic - the Moodle platform at the University of Setif 2 as an example. the study aimed to highlight the role of digital platforms in supporting and activating university distance learning in light of the spread of the Covid-19 pandemic, so that the study sample was estimated at 50 professors who use the Moodle platform, and the questionnaire was based on collecting information and on the statistical program SPSS for analysis. The study found the difficulties of protecting lessons from third parties. In addition to the lack of training among professors, the study recommended the need for broader attention to improving the Moodle platform in terms of its use mechanism and integrating technology into university courses in order for students to benefit from it.

3.Theoretical framework:

3.1. Digital Learning Platform Concept

It is known as an important but more complex learning interface, or interactive learning environment. They are remote training floors based on web technologies, and arenas to showcase all aspects of e-learning through which the learner receives all the courses, programmes and other activities that achieve the learning process (Quiggle & Sanator, 2021, p. 14).

3.2 Objectives of Digital Educational Platforms: The Most Important Objectives Are: (Quiggle & Sanator, 2021, p. 15)

- The possibility of spreading lessons on the web (ON Line) and setting duties and educational activities for learners.

- Granting learners 'direct insulting lifeline in professors through multiple technologies

- Ensuring teamwork by dividing learners into work regiments.

- Exchange of ideas and opinions and sharing scientific content between teachers and learners

-It helps to achieve quality educational outputs.

-Encouraging effective communication between all learners at any time and anywhere in the world.

-Supporting the skill of self -learning and increasing the learner's linguistic efficiency.

3.3. Definition of classroom Google Platform: One of Google's apps launched a year 2014 Provided free of charge for the purposes of helping guide and manage the educational process. It helps the teacher to provide all the possibilities that help him to communicate information differently and provides communication between the teacher, the learner, management and parents. It is seamless and easy to use. All other Googlee apps are also easily utilized to complete the educational (Al-Samkari & Al-Jarrah, 2018, p. 135) It is defined as "one of the educational platforms, based on the use of education technology across virtual classes and Web" (Al-ammari & al-Ghaffari, 2022, p. 137)

4.1 E-Learning Concept: E-learning is a modern method of learning that relies on technological means Modern communication mechanisms such as Internet and computer, videos, electronic libraries, specialized portals, and other technological media help facilitate the process of education, transmitting information to the learner in the shortest time, least effort and most usefulness. In addition to explanation and illustration) (Hamrani., 2022, p. 74)

4.2 .E-learning objectives :

The most important goals of e-learning are the following (Falah & other, 2024, p. 5)•Providing a rich, multi-source educational environment that serves the educational process for all visitors;

- Reformulating roles in the way the teaching and learning process is carried out in accordance with developments in educational thought.

- Creating incentives and encouraging communication within the educational process system, such as communication at home, school, and the surrounding environment;

- Modeling education and presenting it in a standard form. Lessons are presented in a typical form and distinctive educational practices can be repeated.

5. Applied aspect:

5.1 Society and study sample: The study community is a sample of professors of the Faculty of Economics of the University of Ghardaia. A sample of 30 individuals was selected to carry out the study.

5.2. Study tool: A questionnaire was designed for the purpose of gathering information and preliminary data from the study sample. The design of the questionnaire was based on a number of previous studies. 50 questionnaires were distributed to the study sample. 40 questionnaires were retrieved. After the questionnaires were excluded, the number of questionnaires valid for the study became 30. The questionnaire may be in two parts: Part I concerns variables relating to the functional characteristics of the study sample individuals (sex, age, nature of work, scientific qualification, years of experience). Part II of the questionnaire consists of 40 phrases divided into two axes:

The first axis about the google classroom platform, which in turn is divided into three dimensions : after influencing the student and after influencing the professor, after affecting the educational process, contains 15 paragraphs, the second axis about e-education, which in turn is divided into three dimensions: after improving the student's skill, after improving the teacher's efficiency and after improving the educational process and contains 15 paragraphs.

5.3. Study variables:

Two variables for the study, the independent variable and the dependent variable, have been relied upon, as shown in Table 01

Table. (01): Study Variables

Variables	Statement
Independent Variable	google clasroom platform
Affiliate Variable	E-Learning

Source: Prepared by authors

5.4 Measuring questionnaire stability: The questionnaire's consistency is intended to give the same result if the questionnaire is redistributed more than once under the same circumstances and conditions, and is through the Alpha Kronbach coefficient, which is one of the most detailed measures to indicate the consistency and sincerity of the questionnaire.

Table 02: Persistence factors for each focus of the study with the overall rate of all paragraphs of the questionnaire

Axis Title	Number of paragraphs	Alpha Chrombach Value
google classroom platform	15	0.815
E-Learning	15	0.815
Questionnaire as a whole	30	,9530

Source: Prepared by authors based on SPSS24 outputs:

Through Table (02), the general constant factor of the questionnaire was 0.953. The stabilization factors for the first axis ranged from 0.815. The second axis (0.815) was greater than the minimum acceptable constant factor. This indicates that the questionnaire in all its axes has a degree of stability that can be relied upon in the field application of the study.

5.5 Computational circles and standard deviation of the study axes:

The following table shows the calculation circles and standard deviation rather than dimensions and axes of the questionnaire.

Table 03 :shows respondents' perceptions of the paragraphs of the questionnaire

Statement	Arithmetic Average	Standard deviation	Grade
google classroom platform	4,63	0,91	Strongly Agreed
Impact on the professor	4,48	0,91	Strongly Agreed
Impact on the student	4,68	0,89	Strongly Agreed
Impact on the educational process	4,63	0,29	Strongly Agreed
E-Learning	4,76	0,90	Strongly Agreed
Improving the student's skills	4,75	0,21	Strongly Agreed
improving teacher's efficiency	4,60	0,61	Strongly Agreed
improving the educational process	5,00	0,53	Strongly Agreed

Source: Prepared by the two researchers based on SPSS24 outputs:

From the above table (03) respondents from the study sample individuals showed strong approval about the dimensions of the first axis of the google classroom platform. The arithmetic average was estimated at (4,63) with a standard deviation of (0, 90) to a strongly agreed degree.

The second axis, on e-learning, recorded the average arithmetic B (4.76) with a standard deviation of (0.90) to a strongly agreed degree according to the Descart ladder.

5.6. Distribution of data: Colmgrove-Summernoff test was conducted to see whether or not the data track natural distribution which is necessary in case of hypothesis test because most of the teacher tests require that the data distribution be normal, as we have identified the zero and alternative hypothesis as follows:

Zero hypothesis H0: data does not track natural distribution

Alternative hypothesis H1: Data tracking natural distribution

Through Table (4) it is clear that the Z value of the first axis is equal to (0.844), that the level of the denominator is equal to (0.739), and that the Z value of the second axis is equal to (Z). (, 9720), and that the level of indication is equal to (, 3020) which is greater than the level of morale 0.05, which is a statistical function at the level of indication (0.05). Accordingly, we reject the zero hypothesis H0 and accept the alternative hypothesis H1, that the data follows the normal distribution.

Table 04 :shows the normal distribution of the axes' data

Part	About the axis	Number of paragraphs	Z value	Indicative Level Value
First	google classroom platform	15	0,683	0.739
Second	E-Learning	15	0,972	,3020

Source : From the student's preparation accredited SPSS24

5.7 Hypothesis test results

a. " The results of the first main hypothesis test: which states that "there is availability of an ICT application at the University of Gardia", for the purpose of answering the above hypothesis and testing its validity, we used the T -test test. The results are shown in the following table:

Table (05) :Test (T) for google classroom platform axis vertebrae

Interlocutors	Sample Size	Average calculation	Standard deviation	T value	Level of morale	Statistical connotation
First hypothesis	30	4.63	0.91	22.81	0.000	D. Statistically

Source : Prepared by authors based on the outputs of spss 24

From the table (05) shown above for the test (T) and descriptive statistics of ICT axis vertebrae, we note that the average calculation of sample personnel 'opinions was highly positive, with a rating of 3.90, whichever is somewhat strongly approved, and the standard deviation value of the axis was 1.24, while the value of (T) calculated was equal to 22.81 and its probability value is equal to 0.000. It is below the approved statistical morale level of 0.05, so it can be said that the first hypothesis that there is a strong use of the google classroom platform of the Faculty of Economics at Ghardia University has proven

b. The results of the second hypothesis test: which states that "a high level of administrative development at the University of Gardaya", for the purpose of answering the above hypothesis and testing its validity, we used the test-T test. The results are shown in the following table(06)

Table (06) :Test (T) for google classroom platform axis vertebrae

Interlocutors	Sample Size	Average calculation	Standard deviation	T value	Level of morale	Statistical connotation
Second hypothesis	30	4.76	0.90	22.91	0.000	D. Statistically

Source: Prepared by authors based on the outputs of spss 24

From the table (06) shown above for the test (T) and descriptive statistics of ICT axis vertebrae, we note that the average calculation of sample personnel 'opinions was highly positive, with a value of 4.76 whatever is strongly approved, and the value of the standard deviation of the axis was 0.90. (T) calculated was equal to 22.91 and its probabilistic value was equal to 0.000. It is below the statistical morale level adopted $\alpha = 0.05$. It can therefore be said that the second hypothesis, which states "There is a high use of e-education at the Faculty of Economics of the University of Ghardia has been proven.

c-The results of the third main hypothesis test: "There is a statistical effect of the dimensions of the google classroom platform in the development of e-education at the Faculty of Economics at the University of Gardia" to answer the

above hypothesis and test its validity. We used the Multiple Linear Regression Analysis test. The results are shown in the following table(07):

Table: (07) : Multiple linear regression analysis of google classroom platform's role in e-learning development

Statement	Form Information	Beta	Test t	Indicative level
Third hypothesis	B0	,577	2,116	,044
	Influence on Professor	,592	2,789	,010
	Impact on the student	,120	,475	,639
	Impact on the educational process	,051	,237	,815
	Binding coefficient	0.688	2,116	
	Determination coefficient	,0.473		
	Test (F)	25,168		
	Indicative level	0.000		

Source : Prepared by authors based on spss24outputs

It is clear from the table(07) above that the sum of the dimensions of the google classroom platform explain the variation on the e-learning variable where the value was $R^2 = 0.473$ and it is statistically significant at a level below 0.05 and the value of $F = 25.168$, as also shown by the scale of the regression analysis and by the values of Beta, after the influence on the professor was the most and only statistically significant, It is statistically significant at a level below 0 0.05, and was followed by an impact on the student where Beta = , 120It was done after affecting the student where the value of Beta = , 050. "The impact of a statistical indication of the dimensions of the google classroom platform in the development of e-education at the Faculty of Economics at Gardia University" Installed for one dimension of the google clasroom platform which is after influencing the professor.

6.. Conclusion:

In the light of the study's main objective of knowing the impact of the use of google classroomic platform on the development of e-learning from the point of

view of the professors of the Faculty of Economics of the University of Ghardaia, the study reached a number of findings and recommendations.

6.1 Results: The study found several results, the most important of which were:

- There is a high level of influence on the use of the google classroom platform at the Faculty of Economics of the University of Gardia.
- There is a high level of application of electronic education at the Faculty of Economics of the University of Ghardaia from the professors' point of view. After improving the skills of the student, the first order was followed by improving the teacher's competence and, finally, improving the educational process;
- The google classroom platform had the greatest impact on the development of e-education at the Faculty of Economics of the University of Gardia from the professors' point of view in terms of the influence on the professor;

6.2 Recommendations: In the light of previous findings, the study suggests:

- To prepare trained professionals for the Department of Education and the operation of the University's digital distance educational platforms;
- All university courses should be digitized and open-source;
- Facilitating students' access to digital educational platforms;
- Compulsory periodic training sessions for learners and teaching staff to develop their performance skills in using

Modern means of technology in the process of education, such as "model", and how to teach and learn;

- Search for problems in the application of e-education and find solutions to smallpox;
- The use of various electronic media to increase the efficiency of e-learning;
- Compulsory gradual integration of technology into school and university curricula, and even inclusion of a technology scale Information and communication in all university courses annually rather than hexagonally, making it a measure repeated in each year of the student's university course;

7.References:

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8. Annexes:**Crombach's alpha for questionnaire as a whole****Reliability Statistics**

Cronbach's Alpha	N of Items
,953	30

Crombach's alpha for the first axis**Reliability Statistics**

Cronbach's Alpha	N of Items
,815	15

Crombach's alpha for the second axis**Reliability Statistics**

Cronbach's Alpha	N of Items
,815	15

The linear warning

Mode 1	R	R-deux	R-deux adjusté	Error standard de l'estimation
1	,688 ^a	,473	,455	,34380

Coefficients ^a

Model	Coefficients are non-standardised		Coefficient s standardisé s	t	Sig .
	A	Error standard	Bêta		
(Constante)	,577	,273		2,116	,044
Dimension1	,527	,189	,592	2,789	,010
Dimension2	,115	,242	,120	,475	,639
Dimension3	,051	,215	,051	,237	,815

a. Variable dépendante : E-learning