

## The Impact of Distance Education Using the Google Classroom Platform on the Quality of the Educational Process: A Descriptive Study from the Viewpoint of Faculty Members at the Faculty of Economics - University of Ghardaia

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### **Abstract:**

The following study aims to highlight the impact of distance education using the Google Classroom platform on the quality of the educational process, and this is from the point of view of the teaching staff at the Faculty of Economics at the University of Ghardaia, during the academic season (2020/2021). The researcher used the questionnaire as a tool for data collection, where the study sample size is estimated at (47) professors, who were randomly selected. The descriptive analytical method is used because it is an appropriate method to answer the study problematic.

The study found that there is an impact of distance education using the Google Classroom platform represented by (distance education obstacles, trends towards distance education, possession of distance education skills) on the quality of the educational process from the point of view of the Ghardaia University's faculty members at the Faculty of Economic Sciences with a total of these Value. In the case of individualizing these values, it was found that there is an impact of distance education obstacles on the quality of the educational process, but it is a negative impact. In addition, there is a positive impact of attitudes towards distance education and the possession of distance education skills on the quality of the educational process.

**Keywords:** Distance Education; Google Classroom; Quality of the Educational; Faculty Members; Faculty of Economics.

**Jel Classification Codes:** A230, I210, I230, I260

## **I- Introduction :**

Due to the exceptional circumstances imposed by the Corona pandemic, the Algerian Ministry of Higher Education has resorted to adopting the distance education mode since March (2020) in order to complete the remaining lessons of the university year (2019/2020). By the end of the year and the relatively low number of cases of coronavirus infection, the Ministry issued recommendations that university institutions should adopt distance education. This is in addition to having in-person education with reduced hourly size and respect for distancing and prevention measures, in order to ensure having a successful university year. Indeed, an exceptional calendar has been adopted for each university according to its available capabilities and capacity to carry on having in-person education and to support the e-learning platform with other electronic learning platforms to keep up with the lessons. Unfortunately, this platform soon became ineffective in this type of education. The platform witnessed many technical problems that prevented the teacher from accessing the platform in order to develop and evaluate lessons, or the student to follow up and interact with them. Therefore, many university institutions have used tools and aids in the context of distance education. Among the means that the University of Ghardaia (the university under study) used to carry on the educational process is the google classroom platform for its ease of use, and for being an educational platform that can affect the quality of the educational process. On this basis, the current study came to examine the impact of distance education using the Google Classroom platform on the quality of the educational process from the point of view of faculty members.

**The study problematic:** After adopting the distance education pattern by the ministry and approving it at the present time, and through our experience of more than two years teaching using to this pattern, we decided to study this topic on a sample of faculty members at the Faculty of Economics - University of Ghardaia. This is in order to highlight its impact on the quality of the educational process and the quality of teaching. Therefore, this study came to answer the following main question:

**- Is there an impact of distance education using the Google Classroom platform on the quality of the educational process from the point of view of faculty members at the Faculty of Economics - University of Ghardaia?**

From the main question, a number of questions emerge, as follows:

- Is there a statistically significant effect between distance education using the Google Classroom platform (distance education obstacles, trends towards distance education, possession of distance learning skills) combined and the quality of the educational process among faculty members at the Faculty of Economics - University of Ghardaia?

- Is there a statistically significant effect between distance education obstacles and the quality of the educational process among faculty members at the Faculty of Economics - University of Ghardaia?

- Is there a statistically significant effect between trends towards distance education and the quality of the educational process among faculty members at the Faculty of Economics - University of Ghardaia?

- Is there a statistically significant effect between the possession of distance education skills and the quality of the educational process among faculty members at the Faculty of Economics - University of Ghardaia?

**Study importance:** The study's importance lies in the fact that it deals with an important topic, distance education, that the concerned ministry seeks to adopt in Algerian universities. This is by providing the appropriate conditions for it, and because this educational style has proven effective in improving the educational process, especially when using educational platforms such as the google classroom platform. In addition, this type of education helps facing the crises that confront the educational process in the present and the future.

**Study Objectives:**

- Identifying the impact of the distance education dimensions using the Google Classroom platform (distance education obstacles, trends towards distance education, possession of distance learning skills) combined on the quality of the educational process among faculty members.
- Identifying the impact of distance learning obstacles on the quality of the educational process among faculty members.
- Identifying the impact of trends towards distance education on the quality of the educational process among faculty members.
- Identifying the impact of the possession of distance learning skills on the quality of the educational process among faculty members.

**II - Literature review**

**1- Distance education**

**1-1- Definition of distance education:** There are several definitions provided regarding distance education (distance learning), including:

Distance education means: "Providing educational content through media based on smart devices, applications and networks to the learners in a way that allows them to interact actively with this content, with the teacher and with their peers, whether synchronously or asynchronously." (Latif, 2019, p. 287)

It is defined by the American Society of Training and Education (ASTD) as: "Learning process for learners applying digital media" (Lin & et.al, 2017, p. 3555) It is a purposeful, systematic use of electronic or computer systems to support learning processes so that this type of education encourages learning the way of learning. This is because online learning allows the learner to decide which content to focus on in a given period, as well as the learning schedule and the repetitions number of the necessary activities to master the knowledge (Stoyanova & Lambri, 2016, p. 09).

Through the above, the definition of distance education can be summarized as: "that type of education that depends on computer-based digital media and its networks in the provision of educational content, which allows the learners the opportunity to actively interact with this content and with the teacher and their peers, synchronously or asynchronously".

**1-2- Distance education patterns:**

**1-2-1- Direct distance education:** It is represented in the educational methods and techniques based on the global information network in order to deliver educational content to the learner in real-time for education or training.

**1-2-2- Indirect distance education:** It is the learning process through a set of training courses and organized sessions, and this type of learning is adopted in the event that there are multiple circumstances that do not allow the actual attendance of the learner (Idiou, 2019, p. 37).

**1-2-3- Mixed distance education:** This type combines the two previous types, where everyone can be present at the same time in front of the network and the computer and actually participate in it. In the event that one of the learners is absent, they can return to the scientific material or the course at any time (Tebbouche, 2020, p. 145)

### **1-3- Objectives of distance education:**

The educational system in contemporary society has been based on distance education, because of its positive effects in achieving the goals of the educational process. Therefore, we find that among its objectives are: (Bdarneh, 2020)

- The ability to meet the cognitive and scientific needs and desires of learners;
- Improving the process of retaining and accessing acquired information in a timely manner;
- The speed of updating information and knowledge and arranging them according to their importance and lived situation;
- Improving interaction and communication between the two sides of the educational process (teacher and learner).

### **1-4- Google Classroom educational platform**

The Google Classroom platform is one of the most prominent educational platforms that are used in distance education. It is a method of digital education used by many educational institutions and universities in the educational process. This is the case of some Algerian universities that have had to use educational platforms in addition to the E-learning platform of each university, and this is in light of the exceptional circumstances related to the Corona pandemic that Algeria is witnessing, like other countries of the world. Corona forced educational institutions and universities to use the distance education method in order to finish the lessons of the past university year, and this is in light of the impossibility of continuing in-person education.

Google has been interested in building applications and electronic products that serve education, and has launched more than fifteen applications that support the educational process. To make it easy for users, Google has combined all these applications under one system called G Suite for Education, which made the management of all educational applications organized through a single interface. (Lotfy, 2019, p. 173)

Google Classroom was announced on May 6, 2014, at the time the preview was only available to some members of the Google G Suite for Education program, and it was first released to the public on August 12, 2014.

The mobile app for Google Classroom was introduced in January 2015 and is available for iOS and Android devices. With this app, users take photos, attach them to their tasks, and share files from other apps. In March 2017, the application was made available to any subscriber with a G mail account without the requirement to have a G Suite for Education account.

Teachers create an online class area, where they can manage all the documents their students need. Documents are stored on Google Drive and can be modified in Drive apps, such as Google Docs, Sheets, etc. But what sets Google Classroom apart from the regular Google Drive experience is the teacher/student interface, which Google has designed to fit the way teachers and students think and work. (Google Classroom, 2020)

## **2- Quality of education:**

**2-1-Defining the quality of education:** it is defined as: “The process of documenting programs and procedures and applying systems, regulations, and directives. The aim is to achieve a qualitative leap in the university education process and elevating students’ mental, physical, psychological, social and cultural level. This can only be achieved by mastering the business or the work and managing it well.” (Gomaa & et al, 2020, p. 37)

## **2-2- Education quality standards:**

Quality standards change and differ from one university to another. However, it shares many basic principles and pillars, all of which seek to produce the final product: the student who possesses all the skills that are based on thinking, research, criticism, analysis, strong personality, and the ability to express the opinion. Thus, in order to meet the needs of the labor market and society as well, it is necessary to achieve quality standards in education, which are: (Quality Standards in Education, 2016)

- The quality of academic courses and curricula;
- The quality of educational, teaching and administrative frameworks;
- Quality of infrastructure and public utilities;
- Academic achievement results;
- Continuous improvement.

## **3- Previous studies:**

The researcher reviewed a set of studies, such as (Zouaouid & Benchaa, 2021)’s study that aims to identify the impact of digital education using the Google classroom platform on the educational outcomes of the Algerian university in light of the Corona pandemic. This is from the point of view of the bachelor's level students in the Department of Finance and Accounting at the University of Ghardaia for the second half of the academic year 2019/2020. The researchers used the electronic questionnaire as a tool for data collection. The sample size of the study is 185 male and female students, who are randomly selected. The descriptive analytical approach is also used as the most appropriate to answer the problematic of the study, to analyze the data, and come up with the results. The study also found that the outcomes of digital education using the Google classroom platform in light of the Corona pandemic at the Department of Finance and Accounting at the University of Ghardaia, change according to the pros and cons of digital education using the platform. Thus, whenever the positives of digital education increase by one degree, the outputs of digital education increase by (0.710) degrees, and whenever the negatives of digital education increase by one degree, the outputs of digital education decrease by (0.004) degrees.

In addition, the study (Shraim, 2020) also aims to identify the principles, guideline,s and standards used in the e-learning system. The researcher reviewed the educational literature and

used the content analysis methodology through a review of 72 papers published between 2000 and 2019, to present a proposed framework for quality assurance in information technology-enhanced learning. The study concluded that there is no comprehensive framework for the quality of e-learning, and that there is a need to follow the ISO/IEC 40180 system, which is a flexible and adaptable framework for revolutionary organizational change, and meets the needs of the educational organizations. Therefore, the researcher recommended that higher education institutions seeking to promote growth, competitiveness and international recognition consider adopting the ISO/IEC 40180 framework, which should be incorporated into quality national education standards.

As for the study of (Samuel & et al, 2020) it aims at identifying the perception of distance education students and the availability, accessibility, usefulness and impact of educational technologies for acquiring educational experience in Ogbomosho, Osogbo and Ilorin in Nigeria. The study adopts the semi-descriptive approach using the questionnaire as a tool for collecting data from the study sample, which consists of (397) male and female students from six colleges in the study centers. The results showed that educational technologies were not sufficiently available to students in the available study centers due to a lack of high awareness of the usefulness of educational technologies for distance learning. However, the insufficiency of educational technologies was an obstacle to access for use by students. The study recommends the necessity of providing educational technologies in the study centers available to students, and conducting intensive training workshops to train students on how to use them.

Moreover, the study of (Usman & Iqmaulia, 2020) aims to discover and analyze the factors that affect educational motivation in the form of teacher communication style, teacher credibility, and the use of e-learning. The study used a questionnaire tool to collect data and it was distributed to 200 respondents. The study reached a number of results, the most important of which is that e-learning affects motivation and is considered a form of communication with the teacher depending on the method and credibility of the teacher and that it has a positive effect on learning motivation.

The descriptive study of (Yulia, 2020) aims to clarify the ways in which the Corona pandemic affected the restructuring in Indonesia. It explains the types and learning strategies used by teachers in the world using the Internet after universities were closed to limit the spread of the epidemic Corona virus. The study also shows the advantages and effectiveness of using online learning. It concluded that the Corona epidemic has a high rate of impact on the education system. The traditional method of education has declined and has been replaced by online learning, as it supports learning from home and reduces the interaction of individuals with each other, and thus reduces the spread of the virus. The study proved the importance of using various strategies to improve education and make it easier through the Internet.

Furthermore, the study of (Basilaiia & Kvavadze, 2020) aims to examine the experience of moving from school education to online learning during the spread of the Corona virus epidemic in Georgia. It is based on the statistics of the first week of the teaching process in a private school and its experience in moving from in-person education to e-learning during the Corona pandemic. The study discussed the results of online education, where the EduPage and Gsuite platforms were used in the educational process. Based on the statistics of the first week of the online

teaching process, the researchers concluded that the transition from traditional education and online education is successful. The system and skills acquired by teachers, students and school management in the post-pandemic period can be used in different situations. For example, it benefits people with special needs who need additional hours, or by increasing the effectiveness of group teaching or increasing students' independence and acquiring new skills.

As for the study of (Hodges & et al, 2020), it aims to reveal the difference between distance education in emergency situations and online education. The researchers designed a model consisting of evaluation conditions and a set of questions through which it is possible to evaluate distance education in emergency situations, and measure the success of distance education experiences via the Internet. The study concluded that the experiences of online education differ from learning in emergency situations in terms of the quality of planning, and in terms of courses offered via the Internet in response to a crisis or disaster. Colleges and universities must work on preserving education during the COVID-19 pandemic.

(Al-Bawi, 2019) conducted a study aimed at identifying the effect of using the google classroom on the computer department students' achievement in the module of Image processing and their attitudes towards e-learning. The study was implemented over a full academic year, one day per week. The training group, consisting of (47) students, was taught using the educational platform, and the control group, which consisted of (48) students, used the traditional method. The requirements for the experiment were prepared to ensure its internal and external safety. Two tools were built, the achievement test, and the measure of attitude towards e-learning, and their psychometric properties were validated. After teaching all of the programmed scientific material and applying the test, the results showed that there is a positive impact of using the educational platform observed in the achievement of the experimental group and their attitudes towards e-learning compared to the traditional method.

As for the study of (kara & et al, 2019), it aims to explore the challenges faced by adult learners in distance education via the Internet by analyzing the relevant literature on the topic. (36) Published papers were reviewed and analyzed in the main fields of open education, distance education, educational technology, and adult education, where comparative analysis was used to review the studies. The results revealed that the challenges faced by adult learners fell into three categories, including internal factors, external factors, and challenges related to programs. The study recommended the necessity of training adult learners on how to use the Internet in education, and the necessity of using technology in all areas of life.

**Commenting on previous studies:**

By reviewing the intellectual output of previous studies related to distance education, as well as the quality of the educational process, it became clear that there is great interest in this type of education and the need to apply it in educational institutions to improve the educational process.

- The current study agrees with previous studies in using the descriptive analytical method for its relevance to the nature of the study;
- The current study agrees with previous studies in stressing the importance of using and employing distance education in the educational process;

- The current study agrees with previous studies in using the questionnaire as a tool for data collection.
- The current study differs from previous studies in terms of its application to the Algerian University. There is no study on the impact of distance education using the google classroom platform on the quality of the educational process from the viewpoint of faculty members at the Algerian University in light of the Corona pandemic, to the knowledge of researchers. This can be attributed to the fact that the use of technology in university education institutions in Algeria is still in its early stages;
- The current study differs from previous studies in the target sample of the academic community. The previous studies targeted students, while the current study targeted the teaching staff as a sample to achieve the goal of the study;
- The current study differs from previous studies in the dimensions of the study variables, those related to the independent variable distance education, as well as the dependent variable educational quality;
- The current study makes significant use of the previous studies in building the general perception of the study, formulating the study problematic, building the questionnaire's axes, choosing appropriate statistical methods, and interpreting the results of the study.

### **III- Research Methodology:**

The descriptive analytical method is the method used in this study as it is the most appropriate to answer its problematic. The research hypotheses includes the following:

1. The first (main) hypothesis: There is a statistically significant effect between distance education using the Google Classroom platform (distance education obstacles, trends towards distance education, possession of distance learning skills) combined and the quality of the educational process among faculty members at the Faculty of Economics - University of Ghardaia.
2. The second hypothesis: There is a statistically significant effect between distance learning obstacles and the quality of the educational process among faculty members at the Faculty of Economics - University of Ghardaia.
3. The third hypothesis: There is a statistically significant effect between attitudes towards distance education and the quality of the educational process among faculty members at the Faculty of Economics - University of Ghardaia.
4. Fourth hypothesis: There is a statistically significant effect between the possession of distance education skills and the quality of the educational process among faculty members at the Faculty of Economics - University of Ghardaia.

As for the study population, it is the sum of the teachers working at the Faculty of Economic Sciences affiliated of Ghardaia University, and they are estimated at (87) teachers, according to the information provided by the administration of the college. After applying the research sample equation (n), the researcher determined the size of the selected sample which is randomly selected, and the sample size is (47) professors.

Regarding data collection, the researcher used the questionnaire for this important step in the research, and this questionnaire consists of (16) paragraphs, four paragraphs for each variable, and it is designed on a five-point Likert scale as follows:



1. The first section: deals with the questions of the independent variables, which are distance education using the Google Classroom platform, according to the selected values, which are (distance education obstacles, trends towards distance education, possession of distance education skills) and includes (4) paragraphs for each variable.
2. The second section: deals with the questions of the dependent variable: the quality of the educational process. We chose the variable of teaching quality to represent it, and it consists of (4) paragraphs.

As for data analysis, the researcher used the Social Sciences Statistical Package SPSS. The latter includes measuring the effect between the independent variables and the dependent variable, which includes finding the multiple linear regression coefficient and testing the conditions and hypotheses.

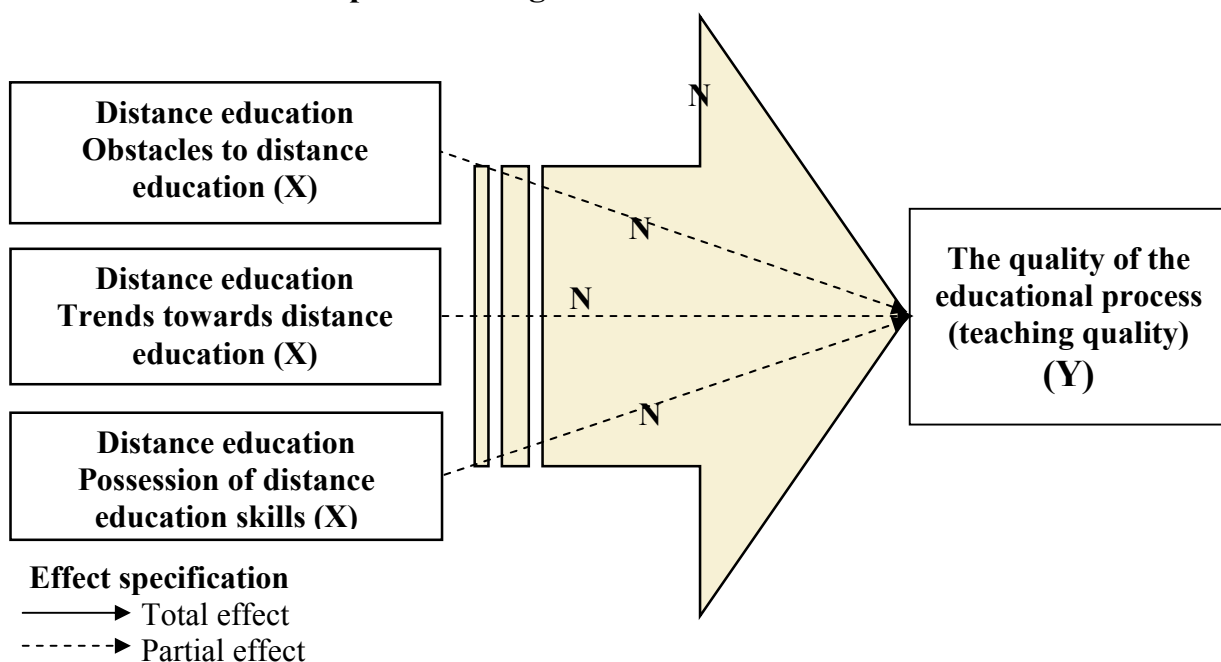
The effect of the independent study variables on its dependent variable will be analyzed, and it has been denoted by the following symbols:

**Table (1): Study variables and their symbols**

Symbols	Symbols data
Y	Dependent variable: the quality of the educational process
a	Constant value
B	The regression coefficient for the independent variables and for each of them separately
X1	Independent variable 1: Obstacles to distance education
X2	Independent variable 2: Trends towards distance education
X3	Independent variable 3: Possession of distance education skills
e	Standard error value

The effect diagram between the variables is as follows:

**Figure 1: A diagram showing the relationship of the total and partial effect of the variables from the results of the multiple linear regression coefficient.**



Source: Prepared by the researcher based on SPSS outputs

## VI- Presentation and analysis of data and drawing conclusions

### A. Validity and reliability test of the study tool

The researcher first tested the research sample in terms of the validity and reliability of the questionnaire, and the internal consistency of the questionnaire's paragraphs was calculated on the survey sample of 47 professors. This is in view of the level of significance, and according to the following tables that show the items of the validity test and the validity of the items for the questionnaire. According to the tables, it was found that most of these calculation outcomes are either less than or equal to 0.05, except that some items have been deleted.

#### 1- Internal validity of the first axis paragraphs: (distance education)

**Table (2): Calculating the validity of the (distance education) axis paragraphs, given the value of the statistical significance ( $\alpha \leq 0.05$ ).**

Paragraph	Statement	Significance value	Validity
1.1X	The high material cost of providing distance education tools such as the Internet	0.372	Invalid
2.1X	Absence of direct communication affects the comprehension of the educational material	0.034	Valid
3.1X	Designing online educational content	0.021	Valid
4.1X	Students' dependence on others to complete and send the required work	0.076	Invalid
1.2X	The google classroom platform helps to achieve the goals of the learning process	0.359	Invalid
2.2X	Distance learning using the google classroom platform contributes to the sharing of ideas and interaction among students	0.008	Valid
3.2X	Teaching using the google classroom platform allows students to access the educational material at any time	0.004	Valid
4.2X	Distance education using the Google classroom platform enhances the relationship between faculty and students	0.022	Valid
1.3X	The google classroom platform enabled me to design educational content that motivates students to learn	0.036	Valid
2.3X	The google classroom platform allowed me to answer students' inquiries on an ongoing basis	0.019	Valid
3.3X	The google classroom platform helped me create alternative online exams to those in-person exams	0.013	Valid
3.4X	The google classroom platform allowed me to easily follow the attendance and absence of students	0.044	Valid

Source: Prepared by the researcher based on SPSS outputs

**2- Internal validity of the second axis paragraphs: (The quality of the educational process)**

**Table (3): Calculating the validity of the (The quality of the educational process) axis paragraphs, given the value of the statistical significance ( $\alpha \leq 0.05$ ).**

Paragraph	Statement	Significance value	Validity
1Y	Faculty members use modern and diverse methods in the educational process	0.000	Valid
2Y	Faculty members encourage students to interact and participate in the distance education mode	0.001	Valid
3Y	Faculty members assign students to prepare and present research in light of the distance education mode	0.000	Valid
4Y	Students are provided with feedback on their performance in the semester exams	0.000	Valid

Source: Prepared by the researcher based on SPSS outputs

**3. Questionnaire reliability test**

As for the stability of the study tool, it means making sure that the answer will be approximately the same if it is repeatedly applied to the same people. The researcher performed the reliability steps on the same exploratory sample, the Cronbach alpha coefficient. The following table shows the reliability of the measurement tool values for the study variables, and that the total alpha value of the variables is higher than the acceptable percentage (60%). This largely reflects the reliability of the measuring instrument, and thus its validity for research.

**Table (4): Reliability coefficient Alpha Cronbach**

Symbol	Factor	Alpha Cronbach coefficient	Results
1X	The independent variable (Distance Education Obstacles)	0.930	Reliable
2X	The independent variable (trends towards distance education)	0.895	Reliable
3X	The independent variable (possession of distance education skills)	0.821	Reliable
Y	The dependent variable (the quality of the educational process)	0.763	Reliable

Source: Prepared by the researcher based on SPSS outputs

**B. hypothesis testing**

**1. Testing the main hypothesis to find out the effect between the independent variables as a whole and the dependent variable**

In this part, the researcher tests the main hypothesis of the study, which is: There is a statistically significant effect between distance education using the Google Classroom platform (distance education obstacles, trends towards distance education, possession of distance education skills) combined and the quality of the educational process among Faculty of Economics faculty members - University of Ghardaia.

The results of (multiple linear regression equations) mentioned later relate to testing the validity of the hypotheses using the statistical analysis program (SPSS). The aim is to know the effect of the independent variables represented in: distance education obstacles (X1) and attitudes towards distance education (X2) and possession of distance education skills (X3) collectively and simultaneously on the dependent variable quality of the educational process (Y). Given these results, the researcher presents an analysis and explanation of this hypothesis and proof its validity according to the following analysis results:

**Table (5): The result of multiple linear regression analysis of the effect of distance education using the Google Class room platform on the quality of the educational process**

Correlation R	determination coefficient $R^2$	F-calculated	F-tabular	D.W Durbin watson	Sig
0.543 <sup>a</sup>	0.294	8.284	3.345	1.685	0.000 <sup>a</sup>

Source: Prepared by the researcher based on SPSS outputs

Through the previous table No. (5), which includes the result of the multiple linear regression equation, it is clear that:

1. The significance level of the total independent variables is (0.000), which is below the level of the approved significance (0.05). This indicates the existence of statistically significant differences in the quality of the educational process and the influence of the dependent variable (the quality of the educational process) on the independent variables (distance education obstacles and trends towards distance education and distance education skills possession). Therefore, we accept (H1) and reject the alternative hypothesis (H0).
2. The value of the correlation coefficient shown for the impact of distance education using the Google Classroom platform (distance education obstacles and trends towards distance education and possession of distance education skills) on the quality of the educational process is (0.543), and this proves the existence of an effect between the previous variables.
3. The calculated (F) value is estimated at (8.284) at (the level of significance  $0.05 \leq \alpha$ ), while the tabular (F) value is (3.34). Therefore, the calculated value of (F) is greater than the tabular value. This proves that there is an effect between the distance education variables using the Google Classroom platform and the quality of the educational process, and that the independent variables together are valid for predicting the dependent variable (the quality of the educational process).
4. The value of ( $R^2$ ) is estimated at (0.294), and this means that the independent variables - distance education using the Google Classroom platform (distance education obstacles and attitudes towards distance education and the possession of distance education skills) explain an amount (29.4%) of the change in the dependent variable (the quality of the educational process). In addition, the percentage (70.6%) is due to other variables that were not the subject of this research.

Based on the results of the previous statistical analysis, the main hypothesis is accepted in its first part. The latter is related to the existence of a statistically significant effect (at the level of

0.05 ≤ α) (at one time) between the distance education variable using the Google Classroom platform represented in (distance education obstacles and trends towards distance education and distance education skills possession) and the quality of the educational process. Thus, we accept (H1) and reject the alternative hypothesis (H0).

**B. Testing the three sub-hypotheses to find out the effect between the independent variables and the dependent variable individually**

The second hypothesis indicates that there is a statistically significant effect between distance education using the Google Classroom platform, each separately represented in (distance education obstacles, trends towards distance education, and distance education skills possession) and the quality of the educational process.

To test the validity of these three hypotheses, the researcher used multiple linear regression analysis, and the results were as follows:

**Table (6): Test results of multiple linear regression analysis: Y**

Variable type	Unstandardized Coefficients		Standardized Coefficients	t-tabular	t-calculated	Significance level alpha	Significance level result	Hypothesis result
	B	standard error	Beta					
Independent	1.531		0.520		1.9432	3.257	0.000	0.007
X1	-0.288		0.185	-0.324	1.9432	-4.689	0.000	0.029
X2	0.323		0.631	0.246	1.9432	2.137	0.000	0.038
X3	0.526		0.124	0.197	1.9432	2.533	0.000	0.012
F hitung =8.284 F tabular=3.34						Number of sample members (47) Level of significance sig F = 0.000		

Source: Prepared by the researcher based on SPSS outputs

Based on the results of Table No. (6), the linear regression equation for the independent variables and the dependent variable (Y) is as follows:

$$Y=1.531+(-0.288X1)+0.323X2+0.526X3$$

**First: Demonstrating the effect (X1 in Y) (The Impact of Distance Education Obstacles on the Quality of the Educational Process)**

1. The level of significance of the distance learning obstacles variable is (0.029), which is less than the approved significance level, which is (0.05). This indicates the existence of statistically significant differences in distance education using the Google Classroom platform. In addition, the dependent variable (the quality of the educational process) is affected by the independent variable (distance education obstacles), and therefore we accept (H1) and reject the alternative hypothesis (H0).
2. The regression coefficient for the distance learning obstacles variable (X1) is (-0.288) and therefore:
  - a. The negative regression coefficient sign indicates that the relationship between distance education obstacles and the quality of the educational process is an inverse relationship. The higher the value of distance education obstacles, the lower the

degree of quality of the educational process and vice versa, and the value of this relationship is estimated at (-0.288).

- b. The lower the value of distance learning obstacles for faculty members, the higher the quality of the educational process. That is, the less the professor's distance learning obstacles are by one unit, the higher the degree of quality of the educational process with a value of (0.288) units, assuming the stability of the other variables in the equation.
3. The test for the calculated (t) value is equal to (-4.689), which is significant at a level less than 5%, and is greater than the tabular (t) value of (1.9432), but its value is negative, that is, the relationship increases negatively (inversely). This confirms the validity of the existence of an effect between the obstacles of distance education and the quality of the educational process.

Based on the results of the previous statistical analysis, this hypothesis is accepted with regard to the existence of a significant effect of the distance learning obstacles variable on the quality of the educational process. However, this effect is not a positive effect, that is, the relationship, in this case, is not direct but rather inverse.

The explanation of how distance education obstacles adversely affect the quality of the educational process is that the faculty members of the study sample believe that distance education obstacles associated with the use of the Google Classroom platform would reduce the quality of the educational process. This is especially the case with regard to the absence of direct communication between the professor and the students, which would affect their assimilation of the educational material, since this platform is classified as an asynchronous learning tool. In addition, it is difficult to design quality e-educational content through this platform, perhaps because it does not provide various multifunctional means and features that are useful in this aspect.

**Second: Demonstrating the effect (X2 in Y) (the impact of trends towards distance education on the quality of the educational process)**

1. The level of significance of the variable (trends towards distance education) is (0.038), which is less than the significance level (0.05). This indicates that there are statistically significant differences in distance education using the Google Classroom platform, and the influence of the dependent variable (the quality of the educational process) with the independent variable (trends towards distance education). Thus, we accept (H1) and reject the alternative hypothesis (H0).
2. The regression coefficient of the variable trends towards distance education (2X) is equal to (0.323), and therefore:
  - a. The positive regression coefficient sign indicates that the relationship between attitudes towards distance education and the quality of the educational process is a direct correlation. The higher the value of the attitudes towards distance education, the higher the degree of quality of the educational process and vice versa, and the value of this relationship is estimated at (0.323).
  - b. The higher the value of the trends towards distance education among faculty members, the higher the degree of the educational process quality. That is, if the

teacher's possession of distance learning skills increases by one unit, the degree of quality of the educational process increases by a value of (0.323) units, assuming the stability of the other variables in the equation.

3. The calculated (t) value test is estimated at (2.137), which is significant at a level less than 5%, and is greater than the tabular (t) value of (1.9432). This confirms and supports the validation of an effect between attitudes towards distance education and the quality of the educational process.

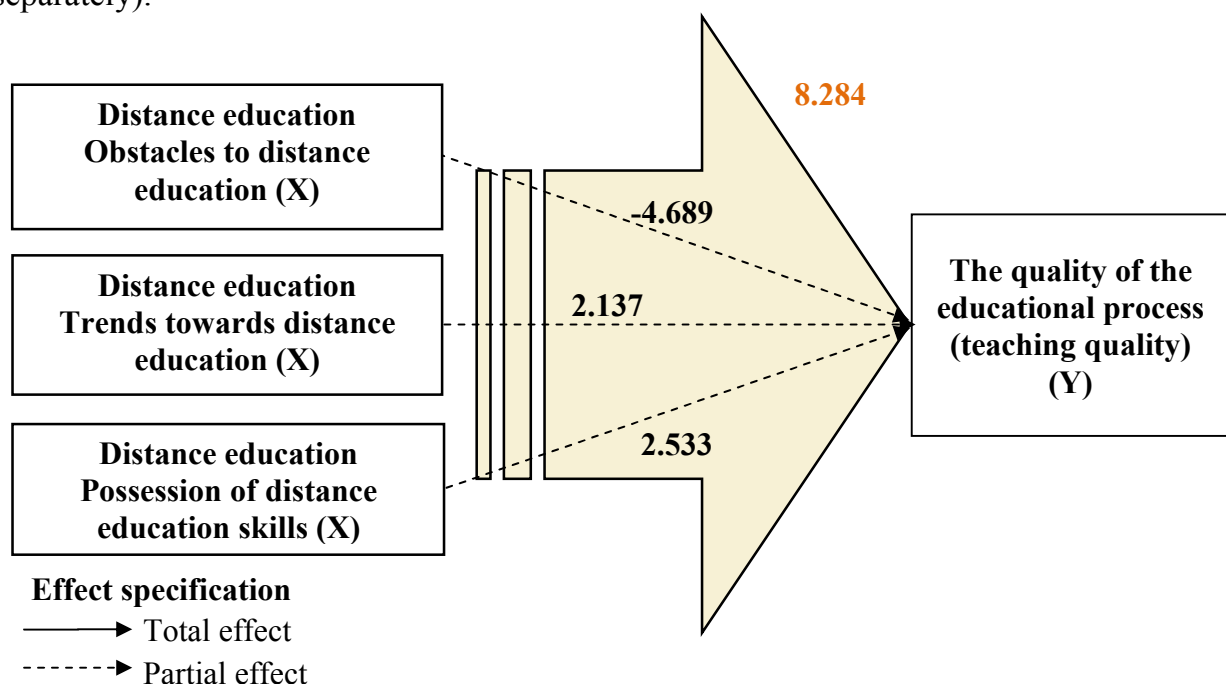
Based on the results of the previous statistical analysis, this hypothesis is accepted with regard to the existence of a significant effect of the variable attitudes towards distance education on the quality of the educational process and that this effect is a positive effect. This effect indicates that attitudes towards distance education make faculty members of the study sample support the use of the google classroom platform in achieving the goals of the college learning process, and they see that this platform has the ability to raise the quality of the educational process.

**Third: Demonstrating the effect (X3 in Y) (The effect of having distance education skills on the quality of the educational process)**

1. The significance level of the variable (possession of distance education skills) is (0.012), which is less than the level of the approved significance, which is (0.05). This indicates that there are statistically significant differences in distance education using the Google Classroom platform and the influence of the dependent variable (the quality of the educational process) with the independent variable (possession of distance education skills). Thus, we accept (H1) and reject the alternative hypothesis (H0).
2. The regression coefficient of the distance learning skills variable (3X) is (0.526), and therefore:
  - a. The positive regression coefficient sign indicates that the relationship between the possession of distance education skills and the quality of the educational process is a positive correlation. The higher the value of acquiring distance education skills, the higher the degree of the educational process quality, and vice versa, and the value of this relationship is (0.526).
  - b. The higher the value of the faculty members' possession of distance learning skills, the higher the degree of quality of the educational process by one unit. That is, the higher the professor's distance learning skills, the higher the degree of quality of the educational process with a value of (0.526) units, assuming that the other variables are held constant in the equation.
3. The calculated (t) value test is estimated at (2.533), which is significant at a level less than 5%, and is greater than the tabular (t) value of (1.9432). This confirms and supports the validation of the existence of an effect of owning distance education skills on the quality of the educational process. Based on the results of the previous statistical analysis, this hypothesis is accepted regarding the existence of a significant effect of the distance education skills variable on the quality of the educational process and that this effect is a positive effect.

This effect indicates that the possession of distance education skills contributes positively to raising the quality of the process. Faculty members believe that having the skills to use the google classroom platform in the educational process increases students' motivation towards learning and allows them to follow up on students continuously.

The summary of the impact statement between distance education variables using the Google Classroom platform on the quality of the educational process among faculty members at the Faculty of Economics at the University of Ghardaia reached some results. It indicates that there is a positive effect when a significant significance value is less than (0.05) for both trends towards distance education and possession of distance education skills. In addition, the effect of distance education obstacles has an adverse effect on the quality of the educational process, and this result is illustrated in Figure No. 2 in terms of showing the effect (at one time) as well as (the effect of each of the independent variables on the dependent variable separately).



Source: Prepared by the researcher based on SPSS outputs

## V - Discussion of results

Our study found that there is a negative significant effect of the distance learning obstacles variable on the quality of the educational process from the point of view of the teaching staff, and this is consistent with the study of (Zouaouid & Benchaa, 2021) and the study (Samuel & et al, 2020) regarding this variable. However, it differs with the study (Basilaia & Kvavadze, 2020) and the study (Al-Bawi, 2019), where there is no negative impact of distance education on the quality of the educational process. Regarding the statements of this variable, we find that one of the disadvantages of distance education using the Google Classroom platform is the absence of direct communication between the student and the teacher, which affects the absorption of the educational material. Moreover, the design of the educational content electronically, is not at the ideal level through which the scientific material can be presented in a modern and innovative way, because this platform belongs to the asynchronous education platforms. Therefore, the presence of these obstacles in this educational style would reduce the quality of the educational process.



Furthermore, our study also found a positive, significant effect of the distance education trends variable on the quality of the educational process from the point of view of the teaching staff. This agrees with the study of (Shraim, 2020), the study of (Samuel & et al, 2020) and the study of (Usman & Iqmaulia, 2020) regarding this variable. However, it differs with the study (Hodges & et al, 2020) and the study (Kara & et al, 2019) in terms of the absence of an impact of the distance education trends variable on the quality of the educational process.

Based on the statements of this variable, we find that the Google Classroom platform contributes to the sharing of ideas and interaction among students through the comments available in the participation arena when the scientific material is uploaded there. It also allows students to access the educational material at any time. This is what makes it a unique platform in this aspect, especially while preparing for exams. It is worth noting that students can lose this feature if the teacher archives his/her scientific material. Faculty members believe that this platform, despite its shortcomings, allows the promotion of distance education, and this is by strengthening the relationship between faculty members and students. Accordingly, the trends of distance education using the Google Classroom platform positively affect the quality of the educational process.

The study found that there is an effect of possession, distance education skills on the quality of the educational process from the point of view of the faculty members. This is consistent with the study of (Yulia, 2020), the study of (Samuel & et al, 2020) and the study of (Basilaia & Kvavadze, 2020) regarding this variable. However, it differed with the study of (kara & et al, 2019) in terms of the lack of an effect of having distance education skills on the quality of the educational process.

Given the statements of this variable, we find that distance education using the Google Classroom platform enables faculty members to design educational content that stimulates students' motivation towards learning. This is through using the acquired skills of faculty members related to information technology and employing them in the educational process. In addition, the faculty members believe that this platform allows them to answer students' inquiries on an ongoing basis, and this is through the possibility of returning to the comments written on the platform under the scientific article that was submitted to them. They are also aware that the Google Classroom allows them to create alternative electronic exams for those in-person exams and allows them to follow students easily and smoothly. Therefore, the possession of distance education skills positively affects the quality of the educational process.

#### **IV-Conclusion:**

Through what was presented in this study, we conclude that distance education using the Google Classroom platform has an impact on the quality of the educational process, and it can be improved in the future, as it has proven effective in exceptional cases and in light of the Covid 19 pandemic. This is provided that there is an optimal exploitation of the functions of the Google Classroom platform and introducing students to it, along with adopting other platforms and applications in the simultaneous education during the educational process in order to improve it, and reflect its results on the level of students' educational achievement.

Our study reached a set of results, which we highlight as follows:

- There is a statistically significant effect between distance learning obstacles and the quality of the educational process among faculty members at the Faculty of Economics, Ghardaia University.
- There is a statistically significant effect between trends towards distance education and the quality of the educational process among faculty members at the Faculty of Economics, Ghardaia University.
- There is a statistically significant effect between the possession of distance education skills and the quality of the educational process among faculty members at the Faculty of Economics, Ghardaia University.
- There is a statistically significant effect between distance education using the Google Classroom platform (distance education obstacles, trends towards distance education, possession of distance learning skills) combined and the quality of the educational process among faculty members at the Faculty of Economics, Ghardaia University.

**Study recommendations:** In light of the study results and objectives, the study recommends the following:

- Working to increase the flow of the Internet and its accessibility by faculty members and students, as it is an important pillar for the success of distance education, in light of the pandemic and in emergency situations.
- The necessity for faculty members to rely on synchronous distance learning as an aid in providing lessons and lectures for students, given that asynchronous distance learning platforms and programs, such as the google classroom platform, are not sufficient to show students' creativity.
- The Ministry of Higher Education and Scientific Research should urge universities to design educational materials that are compatible with distance education and its requirements, and to establish specialized committees to follow up and evaluate this matter, in order to improve the quality of the educational process.

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