

## Primary School under the COVID-19 Pandemic: between Reality and Hope

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**Abstract:** After the outbreak of the Covid-19 pandemic, its spread at a rapid rate, and a large number of deaths were recorded. All countries, including Algeria, have issued preventive decisions and measures to limit its spread and protect human life. The most important of them is studying suspension. Facing this situation, the executive authorities decided to resort to distance education at all educational levels (primary, comprehensive, secondary and university).

So Platforms (educational platforms of the concerned Ministries, television and social media channels) have been allocated to follow up educational classes remotely, using modern information technology as much as possible, raising awareness of the importance of distance education and encouraging families to accompany their children psychologically and socially by providing audiovisual means and computers, to educate their children at home.

The aim of this study is to detect the impact of e-education on the process of teaching primary school pupils during the Covid-19 pandemic, and to achieve the

objectives of this study, the descriptive analytical approach was used, and the sample of the study consisted of 114 families, and the data for primary students were collected using electronic form, it ditorial team. Times New Roman, Size-10, Interline simple.

Consisted of four axes and 36 questions addressed to the parents of the pupils to answer them. In this research paper, we used the SPSS statistical program in order to process the statistical data. The data collection process lasted 30 days (from 1st to 30th October 2020). One of the most notable findings was the difficulty in teaching primary students remotely, and following lessons through TV channels as well as the YouTube network because they used them before the suspension as playing and entertainment means.

**Keywords:** Distant learning – Family – Pupils – Academic achievement

#### المخلص:

بعد تفشي جائحة كوفيد 19، وانتشارها بوتيرة سريعة، وتسجيل عدد كبير من الوفيات. أصدرت جميع الدول، ومن بينها الجزائر، قرارات وتدابير وقائية للحد من انتشارها وحماية حياة الإنسان. من أهمها تعليق الدراسة. أمام هذه الوضعية قررت السلطات الوصية اللجوء إلى التعليم عن بعد في جميع المستويات التعليمية. إذ خصصت منصات (منصات تعليمية خاصة بالوزارة الوصية، القنوات التلفزيونية، وقنوات التواصل الاجتماعي) لمتابعة الحصص التعليمية عن بعد مسخرتا تكنولوجيا المعلومات الحديثة قدر المستطاع، ونشر الوعي بأهمية التعليم عن بعد وحث الأسر على مرافقة أبنائهم نفسيا واجتماعيا وهذا بتوفير الوسائل السمعية البصرية والحواسيب، لتعليم أبنائهم في منازلهم.

هدفت هذه الدراسة الكشف عن واقع التعليم الإلكتروني لتلاميذ الابتدائية في ظل جائحة كوفيد 19، ولتحقيق أهداف هذه الدراسة، تم الاعتماد على

المنهج الوصفي التحليلي، وتكونت عينة الدراسة من 114 أسرة، وجرى جمع البيانات الخاصة بتلاميذ الابتدائية باستخدام استبيان الكتروني، تكون هذا الأخيرة من أربعة محاور و 36 سؤال موجهة لأولياء التلاميذ للإجابة عنها، استخدمنا في هذه الورقة البحثية برنامج SPSS الإحصائي من اجل معالجة البيانات الإحصائية. دامت عملية جمع البيانات ثلاثون يوما (من 1 إلى أكتوبر لسنة 2020). من أبرز النتائج التي توصلنا هي وجود صعوبة في تدريس تلاميذ الابتدائية عن بعد. ومتابعة الدروس عبر القنوات التلفزيونية وشبكة اليوتيوب لكونهم كانوا يستعملونها قبل تعليق الدراسة في اللعب والترفيه.

الكلمات المفتاحية: التعليم عن بعد؛ الأسرة؛ التلاميذ؛ التحصيل الدراسي

## 1.Introduction

Information and communication technologies and their continuous and rapid achievements are considered as a real revolution between what is known as interactive communication technologies on the one hand, and multiple means of communication on the other hand, as it has become required to use them due to the developments and changes that have affected the world as a whole, including the electronic learning, which has become necessary to develop techniques and means for distant teaching in light of the exceptional and health conditions of the Covid-19 pandemic, which the Algerian society is experiencing, especially in the education sector, in order to give priority to these methods and means to provide an interactive educational environment, to attract the pupils' interest and develop their skills as well as their knowledge achievement in the continuity of lessons and getting used to the internet and computer.

For this purpose, and through this research paper, we try to present the following sociological problem: "**How did students interact with modern technologies for a distanced**

**education and training in the lockdown period of the Covid-19 pandemic. And did distance education affect the academic achievement of the student during this era?"**

**Hypotheses:**

Based on the questions raised in the problematic, we can formulate some temporary scientific and methodological answers that will support us in the process of building sociological research and delve deeper into the subject of the study:

- The difference between the two genders does not have a statistical significance towards the use of social media sites at the level of  $\alpha=0.05$
- The difference between the two genders does not have a statistical significance towards following up on learning at the level of  $\alpha=0.05$
- The difference between the two genders does not have a statistical significance towards academic achievement at any level  $\alpha=0.05$

This study aims to define the importance of duplication of distance learning and technology, and to find out how effective was the decision to resort to distant learning due to the suspension of in person class studies. Our research paper also aims to find out the attitude of the family and children towards distant learning after the suspension of studies in the third academic period and achievement.

Any study in scientific research requires the researcher to provide an accurate description of the phenomenon to be studied. The method is considered as "the backbone in the design of research because it is the plan that contains the steps of conceptualization and explaining the procedural meanings,

the study framework, the choice of method, the means of data collection, and the determination of the research community and clarification of the fields of studies ... etc.". In fact, the choice of the appropriate research method depends mainly on the research community and the subject matter to be researched, for that those interested in the research methodology focus on the fact that the researcher is not free in his choice of the method. Studying the reality of distant learning in Algeria requires the use of quantitative approach, as a basic method in studying the subject, within the limits of time, effort and resources available to the researcher. This is one of the main methodologies in descriptive research "to describe the studied phenomenon and reflect it quantitatively by gathering authorized data on the problem, categorizing it, analyzing it and subjecting it to preciseness study".

The means of collecting data and information have multiplied due to the variety of the nature of their sources, and to the data and information themselves, "These tools are used individually or collectively according to the nature of the research or the phenomenon". So the methodological means and techniques are imposed by the nature of the studied subject, as well as the health situation status of Algerian society as any other societies and the nature of the researched problem, so we tried as we could to master these techniques and use them in a proper manner to achieve the required scientific accuracy, avoiding errors and deliver scientifically valued results. We relied on the electronic form as an essential means of data collection, which was applied to the sample of Algerian families (despite the difference of their geographic positioning, socio-demographic and economic characteristics), it is considered as one of the most currently used tool in research or field studies, based on this, for our research it has been used to collect as much information as possible which helped us to classify it and calculate the

answers frequencies and testing research and statistical hypotheses.

A group of Algerian families represents our study research community with children studying in educational institutions (primary, middle and secondary). We also relied on simple random sample based on the selection of sample members upon conditions set by the researcher. The research sample consists of 114 families.

## 2. Defining concepts:

**2.1 Distant Learning:** It is a relatively modern method of education. ... which consists of the transfer of an educational program from its location on the campus of an educational institution to geographically dispersed places. It aims to attract students who, under normal circumstances, are unable to continue in a traditional educational program. When applying it as a technological means or method that consists of learning lessons without moving physically to educational institutions.

Distant learning is meant as the means by which a teacher conducts his dispense to his pupils and students through the use of the internet, for this reason it is called Distant Learning, and it means that there is a long distance that may separate the teacher and the students, and regardless of the distance between them, they communicate in order to carry out the teaching learning processes. Distance learning is also defined as having all the learning process elements such as subject, the methodology, teacher, student, seats, and means of communication, papers and pens. However, communication is not direct because it is done via the Internet (Ihab Sultan, 2003), for this reason, e-learning is considered as one of the modern educational processes and depends mainly on the computer and is a complement to traditional education, E-learning is a good and economic means aiming to deliver

scientific and cognitive information, its purpose is to achieve the desired goals, to make the learner ready to face the requirements of life and deal rationally with it.

**2.2 The family:** The family is considered as the fundamental and permanent social group and a key social system, and not only the basis of the existence of society but also the source of morality and the principal pillar to control behavior through social upbringing.

**2.3 Academic achievement:** Theoretically, academic achievement is often linked to the concept of school education except that school education is more than that, "indicating changes in performance under training and practice conditions in school, while academic achievement is linked to the desired learning results and educational objectives". Procedural, it is a set of educational objectives that are achieved by pupils within the educational institution, as a result of the pupil's understanding and assimilating the lessons.

**2.4 Social media sites:** A social electronic formula used by individuals or groups in particular through which ideas and experiences are shared as well as skills and knowledge between users through continuous interaction and communication" (Asmaa Amouri, 2020).

### **2.5 The importance of distant learning for students:**

The developments taking place in the world today in various fields, from technological development and the information boom, are considered as the necessities, as many modern technologies appeared to have affected public administrations, including the Algerian University, with the emergence of a new type of learning, which is distant learning through relying on the Internet and modern technological and digital technologies in learning, and for keeping pace with these developments in the field of learning, the Ministry of Education has intended to include this type of education in

teaching the student to continue the proper program for each subject and because it is a positive step and a qualitative leap for the sake of improving education and developing students' skills in order to provide them with individual or collective experiences in the field of distant learning.

### 3. Results View:

**3.1 Children's use of social media sites:** The world is witnessing a tremendous revolution in the field of information and communication technology, and the standard of progress of nations has become measured by the extent to which they use various technological media and the extent to which they are employed in different areas of life, foremost of which is the field of distant learning. In this context, most developed and under developed world countries alike have tended to develop educational plans based on the shift to the culture of electronic teaching and technology investment, especially the internet, which has become a necessity of the era under the Covid-19 pandemic. In other words, e-learning has become an integral part of working in schools, especially since it has become easy and simple to use electronic devices in various categories of the Algerian society, even if there is not a conclusive evidence for its superiority to all aspects of education.

Social media sites, and the new technologies of communication devices, have long faced criticism from some social and psychological researchers. They described it as affecting the students' academic achievements, as it consumes a lot of their time and distracts them from reviewing their lessons and performing their assigned works, which has a consequence of having educational problems, such as lack of sleep, attention and concentration in the lesson. But with the closure of schools and the use of virtual teaching, many countries resorted to providing lessons through television



channels, electronic platforms and YouTube. But did the pupils use them to pursue electronic lessons? And how well do children master the use of computers and social media sites?

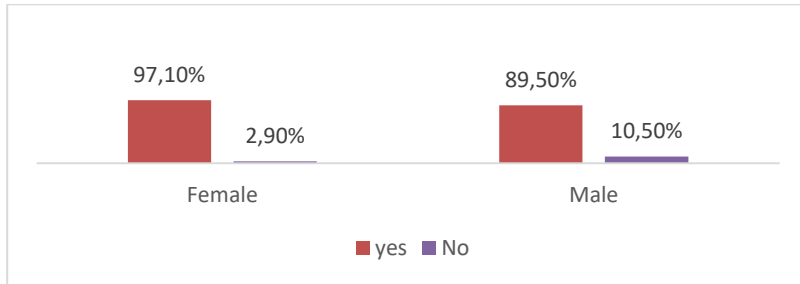
The results of our "field" research and graph # 1 show that 94% of 54 students use social media of all kinds. Of these, 97.1% are female and 89.5% are male. And to answer the statistical hypothesis that there is no statistically significant gender difference towards the use of social media sites. We filled the non-parametric hypothesis  $\chi^2$  test for two independent samples (see Table 1). The obtained result was tending towards the above mentioned formula, where we recorded a significance level of 0,240, which is greater than the level of  $\alpha \geq 0.05$ . In other words, there is no gender difference regarding the use of social media sites.

It can be said that mastering the use of websites facilitates the virtual learning process for the respondent pupils.

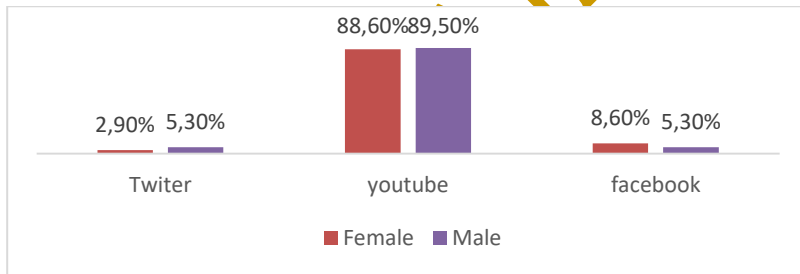
**Table n°1: The hypothesis test, that there are no gender differences towards the use of social media sites**

Variable	number	Numerical value $\chi^2$	Degree of freedom	Stat Significance $\alpha \geq 0,05$
Gender	Male	19	1	0,240
	Female	35		Not significant

**Graph n° 1: Distribution of respondents according to gender of social media sites users**



**Graph n° 2: Most used social media sites according to gender**



Through the results of the field study, we recorded respondents use of YouTube at 88,9% of the total number of (see graph 2 above), of which 88,57 were female and 89,47% male.

The results of our research showed that there were no significant differences in the use of social media sites types at the level of  $\alpha \leq 0.05$  according to gender (0,828).

**Table n° 2: The hypothesis Test that there are no gender differences regarding the use of social media sites types.**

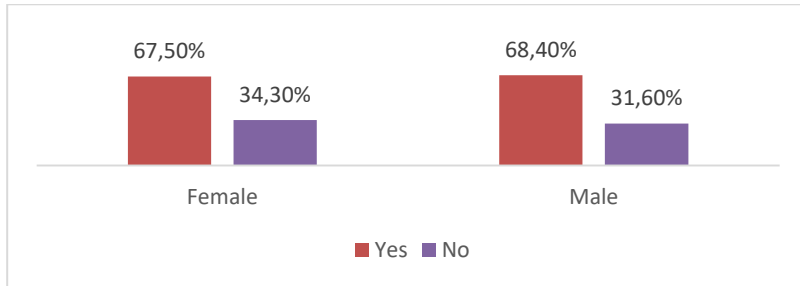
Variab le	number	Numerical value $\chi^2$	Degree of	Stat Significance
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				freedom	$\alpha \geq 0,05$
G e n d e r	Male	87	0,376	2	0,828
	Female	147			Not significant

**3.2 Children remotely lessons Follow-up:** In the light of what we are facing now (the health crisis due to the outbreak of the Covid-19 pandemic), the increased demand for distant learning, the continuous increase in the number of students, and the need to provide additional opportunities for education in this system in equal opportunities, and the desire to increase the students motivation and encouraging them to acquire and employ knowledge and the scientific data on their own. This is through their interaction with this system, which came as an alternative to the traditional school after the suspension of the study.

After the forms validation using the SPSS, and tabulating the data we recorded approximately 67% of the respondents who stated that they followed the teaching sessions that were conducted through public and private television channels, electronic platforms, and the YouTube channel. Of these, 68.42% are females and 67.50% are males (See Graph No.3). While 33% did not receive any teaching ration. Their argument was the inability to follow the virtual lessons due to poor internet flow, and they were ignorant of the TV broadcast. This is due to the non-concerned role of the family, which is accustomed to teaching their children through the teacher only.

**Graph n°3: Distribution of respondents according to gender towards following virtual lessons.**



Regarding the statistical hypothesis test, that states that there are no gender differences in following the virtual lessons, has been accepted by the results we obtained represented by the level of significance equal to 0,84%, which is less than the theoretical significance level of 0.05%. This indicates that there not difference between gender towards following lessons remotely, and females are more followers than males.

**Table n° 3: Examining the hypothesis test that there are no gender differences towards following the virtual lessons**

Variable		number	Numeric al value $\chi^2$	Degree of freedom	Stat Significance $\alpha \geq 0,05$
Gender	Male	19	0,84	1	0,84 Not significant
	Female	35			

**3.3 The method used to follow lessons remotely according to gender:** In the Covid-19 period, teaching is witnessing continuous developments in the technological means that can be used in the educational process, which fall under three main techniques:

A- Computer-based learning, which is represented by interaction between the computer and the learner only;

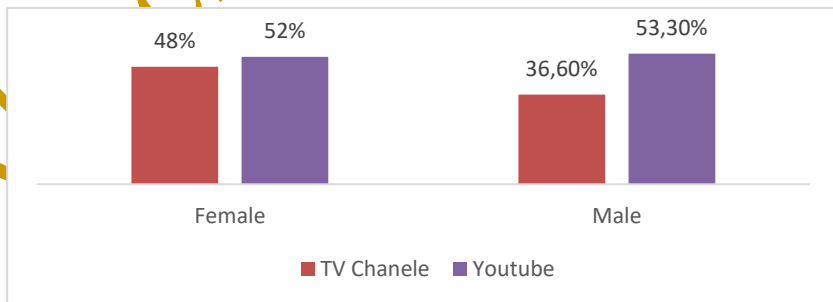
B- Learning with the help of television channels in which television is a source of knowledge and a means of learning

such as information retrieval or review of questions and answers.

C- Learning through the YouTube channel, where it works to explain educational materials with image and sound to guide the learner.

Through the results of our research paper, we noticed that 52.5% of all researchers were following the lessons on TV and 37.5% were watching classes on YouTube. It is enough to point out from these findings that a large number of researchers have only some of the old techniques they are used to, represented in the television set, and now they are also able to deal with any modern teaching technology, knowing its advantages and disadvantages. Educational topics that can be programmed in the form of films, floppy disks or slides to be displayed in the classroom learning process, with the need to take into account many things of them (Aouatif El-Kassimia, 2010, 21)

**Graph n°4: Distribution of respondents according to gender towards the technique used when following up the lessons.**



To answer the question, are there statistically significant gender differences at the level of  $0.05 \geq \alpha$  between the sexes regarding the technique used in following the virtual lessons? We used the  $\chi^2$  test, which indicates that there is no statistically significant effect between the sexes on the technique used in following up the electronic lessons, with a significance level (0.8265).

**Table n°4: The hypothesis test that there are no gender differences between regarding the technique used in following up the virtual lessons**

Variable		numbe r	Numerical value $\chi^2$	Degree of freedom	Stat Significance $\alpha \geq 0,05$
G e n d e r	Male	19	0,381	2	0,826 Not significant
	Femal e	35			

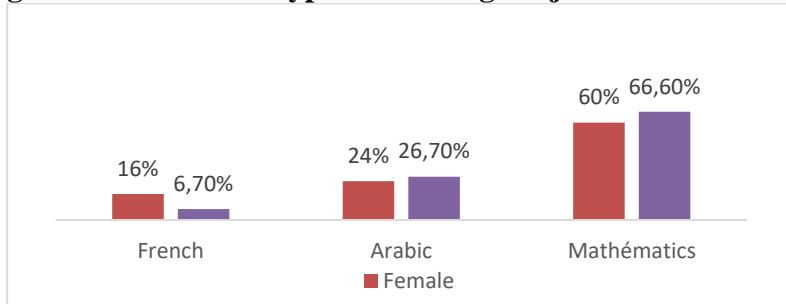
### 3.4 The educational lessons received by the children:

Despite the importance of the basic subjects course in general and the secondary subjects in particular, the latter did not find interest and following-up among most students, and this is due to the method used in teaching them in the traditional school, which depends on recitation and explanation without giving its importance and increase. The same is true for e-learning. By attending classes remotely we noticed the broadcast of the basic subjects only, on which the learners are examined in the final classes. So is learning consists merely of acquiring knowledge or acquiring information?

Graph No.5 shows that most of the respondents (students) followed lessons in mathematics at a rate estimated to 52.5%, 25% for Arabic language classes, and 12.5% for

French language classes. The students stated that they followed only the basic lessons in the elementary school.

**Graph n°5: Distribution of respondents according to gender towards the type of teaching subject**



It was found through the results of our research that the gender differences towards following basic and secondary lessons is not statistically significant at the level of  $\alpha \leq 0.05$ . The significant ratio that they recorded was estimated to be 0.8133.

**Table n° 5: The hypothesis test, that there are no gender differences towards following principal and secondary lessons.**

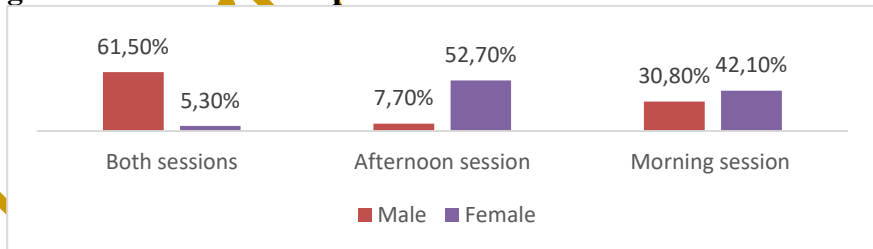
Variable	number	Numeric value $\chi^2$	Degree of freedom	Stat Significance $\alpha \geq 0,05$	
Gender	Male	19	0,950	3	0,8133
	Female				

**3.5 Lessons Timing follow-up:** E-learning is an educational system designated for providing instructional or training programs to learners or trainees at anytime, anywhere using interactive information and communication technologies such

as the internet, local channels, e-mail, CDS, computers, etc.. In other words, one of the advantages of providing an interactive, multi-sources, teaching and learning environment in an asynchronous remote manner without being committed to a specific place or period of time.

It is clear from the results obtained in the field, represented in the graph No. 06, the students attend virtual classes in the evening; with an estimated rate of 44.8% out of 165 students, and 29.7% of them attend lessons in the morning, and we registered only 25.5% of all respondents. The freedom to choose the timing to study has helped many students follow recorded lessons on YouTube at any given time. In contrast to the traditional school which imposes students to a period of time that exceeds five hours a day, divided into morning and evening sessions. Many researchers attributed the decline in the level of academic achievement to the hourly volume imposed to student studies, especially in the elementary school.

**Graph n° 6: Distribution of respondents according to gender and the follow-up of virtual classes.**



Through our research paper, we recorded that there were no statistically significant differences at the level of  $\alpha \leq 0,05$  for both genders (0,632), according to academic levels.



**Table n°.6: The hypothesis test that there are no gender differences regarding the timing of following up the virtual lessons.**

Variable		number	Numerical value $\chi^2$	Degree of freedom	Stat Significance $\alpha \geq 0,05$
G e n d e r	Male	19	0,229	1	0,632 Not significant
	Female	35			

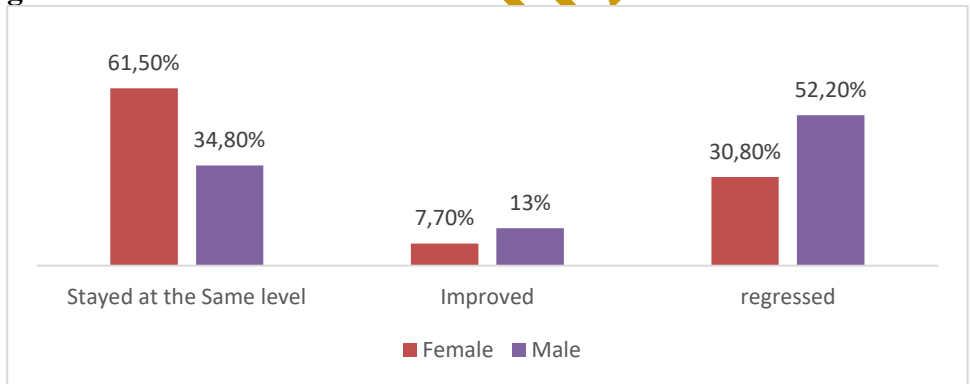
**3.6 Assessment of learning achievements during the Covid-19 pandemic:** The Coronavirus (Covid-19) pandemic prompted the concerned Ministry of education to suspend studies and resort to the distant learning system, amid questions about the success of this experiment in light of a number of obstacles that both students, and parents confront, especially in terms of academic achievement, which is not electronically designed to evaluate the student. And not all students were tested at the end of the last term. The Algerian school took into account just the final classes concerned by the BAC and BEM exams while the remaining classes at all levels could move to upper classes taking into account the average of the first and second term.

The concepts of evaluation have multiplied due to its importance and the value it has for social and psychological researchers, "it means issuing a support for a precise purpose, and includes the use of criteria for the extent of adequacy, accuracy and effectiveness of things" (FanyGhania, 2005, 92) In our study, we asked a question about the family evaluation of the level of their children after the six-month school break and the resort to virtual learning. The purpose of this question

is to determine the children's academic achievement level in the third term; the obtained results are shown in Graph No. 7.

We notice through the results of the graphical representation an estimated 44% of student maintained their educational level, including 61.5% for females and 34.8% for males. With an equal proportion of all students, their level decreased, and it was estimated at 44% (30.8% for females and 52% for males). We also scored 10% of respondents whose level improved. They referred this to reviewing the recorded lessons and resolving course exercises.

#### Graph n°7: Distribution of respondents according to gender towards educational achievement



We can explain these results by relating it to the nature of receiving the scientific subject and the way that best suits the student through various educational means. Some of them prefer the visual method, others the audible or readable method and some of them prefer the practical method where the lessons and explanations are recorded which means that they are not limited by time. This is exactly what the parents have declared saying that: “The E-learning and its resources allow the possibility of applying them in many different ways

that allow the development of his scientific and cognitive skills.” The results of the  $\chi^2$  test show that there are no statistically significant gender differences at the level of  $\alpha \geq 0.05$  towards academic achievement with a value of (0.632).

**Table n°7: The hypothesis test, that there are no gender differences towards the academic achievement**

Variable	number	Numerical value $\chi^2$	Degree of freedom	Stat Significance $\alpha \geq 0,05$
G e n d e r	Male	19	1	0,632 Not significant
	Femal e	35		

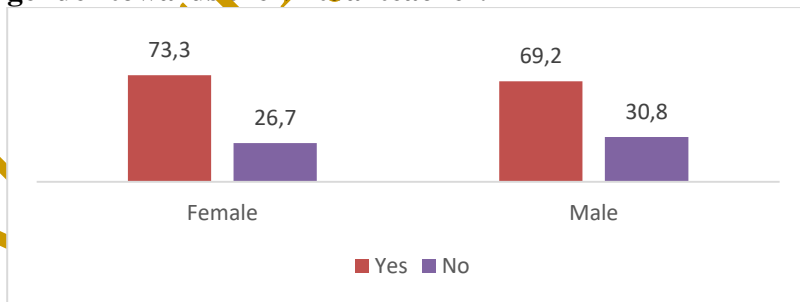
### **3.7 The virtual teacher and the interaction of the primary pupils:**

The e-learning does not neglect the role of the real teacher quite the opposite his role becomes more important if he interacts directly with his students by using the new technologies Most of the difficulties that respondent students encountered in distant learning tend towards changing the professor or the teacher. And the difference in the way the lessons are explained by the virtual teacher. In order to be effective, the role of distant learning must bring together the teacher and his pupils through modern technological techniques such as using "Zoom" application. That is, in order for the teacher's role to become important in directing students to make the most of the technology of distant learning, the teacher must transmit information steadily and in one direction to and from the student in an environment characterized by virtual teaching techniques and develop a practical understanding about the characteristics and needs of

the learners. He also follows teaching skills that take into account the diverse and differing needs and expectations of the recipients, and there is no doubt that the role of the teacher will always remain significant, but it becomes more difficult than before, because the teacher is the essence of the learning process, so he must be open to everything new with flexibility that enables him creativity and innovation (Bouabza Ahmed, 2018, p 346).

Most of the respondent students stated that they found difficult to understand a given lesson from another professor, and this is approximately 70% for both sexes. (See Chart N8). This is an important stage in the educational phase, where students have a strong relationship with their teacher or professor and their educational level largely reflects their teacher's way of explaining. Through our field of study, it is possible to explain the decline in the level of some pupils due to this factor. But, there is another factor represented by the role of some families who have stated that they will not accompany their children in the distant learning process.

**Chart n°8: Distribution of respondents according to gender towards the virtual teacher.**



The results of the  $\chi^2$  test confirmed that there are no statistically significant gender differences at the level of  $\alpha \leq 0,05$  towards replacing the school teacher with a virtual

one. But according to educational levels, we recorded clear and statistically significant differences (see Table No8).

**Table n°. 8: Testing the hypothesis that there is no gender differences towards the virtual teacher.**

Variable	number	Numerical value $\chi^2$	Degree of freedom	Stat Significance $\alpha \geq 0,05$
Gender	Male	19	1	0,632 Not significant
	Female	35		

### 9. Conclusion:

Distant Learning is considered as one of the modern available tools, in recent periods in the exceptional circumstances of the Covid-19 pandemic, which helped students to continue their studies through digital platforms and television channels in order to raise the level of their academic achievement and complete the program for each subject. And this is what we concluded through our field of study: the culture of distant learning needs to be trained and developed, with more encouragement, formation and effort, for both teachers and students, because the use of the Internet and social media sites in distant learning has become necessary to encourage students and teachers to exchange messages and discussions with each other, depending on the Internet.

Training teachers to take advantage of the available educational sites on the Internet helps them to acquire e-learning sites designing skills. And thinking about making the

transition from traditional educational forms to modern digital ones, and that is requiring teachers and pupils to go through the stage of merging between old and modern education formulas, and to work on the process of raising the academic achievement of students remotely, by building a network for each school so that teachers communicate with their students and the administration. In order to improve the level of achievement and replace the traditional school with the virtual one in exceptional circumstances, this is what made this kind of education one of the most important pillars of the modern education process and led the concerned Ministry in a general way, to keep pace with developments the world is witnessing today in this field in order to develop the learners' skills and abilities by various means.

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