Cyber Bullying and its Relationship to Academic Success According to a Sample of High School Students During the Corona Pandemic (Covid-19)

التنمر عبر مواقع التواصل الاجتماعي وعلاقته بالتحصيل الدراسي لدى عينة من تلاميذ الثانوية في ظل جائحة كورونا (كوفيد 19)

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Abstract

The study aims to identify bullying through social networking sites and its relationship to academic achievement, according to the variables: gender, educational level and scientific specialization during the Corona pandemic (Covid -19) using the descriptive analytical method on a sample of 100 students from five secondary schools in El-Eulma, Setif. After statistical treatment of the obtained data, the study found that there is a statistically significant correlation between bullying through social networking sites and the academic achievement of the study sample. Also, there are no statistically significant differences due to the variable of gender, academic level and scientific specialization.

Keywords: Social Media, Cyber Bullying, Academic Achievement, Corona Virus, Covid-19.

ملخص

تهدف الدراسة إلى التعرف على التنمر عبر مواقع التواصل الاجتماعي وعلاقته بالتحصيل الدراسي، وفقا لمتغيرات: الجنس، المستوى الدراسي والتخصص العلمي خلال جائحة كورونا (كوفيد 19) باستخدام المنهج الوصفي التحليلي على عينة شملت 100 تلميذ من خمس ثانويات بدائرة العلمة، ولاية سطيف. بعد المعالجة الإحصائية للبيانات، توصلت الدراسة إلى وجود علاقة ارتباطية دالة إحصائيا بين التنمر عبر مواقع التواصل الاجتماعي والتحصيل الدراسي لدى عينة الدراسة، كما لا توجد فروق ذات دلالة إحصائية تعزى لمتغير الجنس والمستوى الدراسي والتخصص العلمي .

الكلمات المفتاحية: التواصل الاجتماعي، التنمر الإلكتروني، التحصيل الدراسي، فيروس كورونا، كوفيد 19.

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1. Introduction:

The ecology of virtual space contains a wide range of social networking sites that contribute to changing human communication without cost and overcoming the boundaries of distances between individuals, also without taking into account sexual, ethnic, ideological and ideological differences in promoting this communication, and they are available in various ways (Facebook, Instagram, Snapchat, Twitter, Tik Tok...) about more than two billion people, known as users, interact socially through accounts for a personal profile that may be real or fictitious.

Although this space has managed to turn the world into a small village due to information flow and blast the knowledge between the participants, especially with regard to providing scientific communication between students, but it is a double-edged sword. In return, it has led to the spread of many electronic crimes such as blackmail, forgery, harassment, harming, threatening and insulting with ugly words, slander, and publishing intimate photos and videos... which is known as cyber bullying, cyber violence, digital violence, electronic harassment, or electronic bullying. They are concepts that ultimately refer to different ways of the same phenomenon or rather of one phenomenon, namely: negative and violent behavior towards another through communication and communication tools. With the increasing use of various modern technology tools and applications via the Internet by students of educational institutions, it was not also free from the phenomenon of electronic bullying, especially in light of the Corona pandemic, the mandatory quarantine and its unknown repercussions, the closure of educational institutions and the emergence of distance education. Many studies and scientific research have confirmed the spread of the phenomenon of cyber bullying in adolescence, as the most used category for these applications, including, for example, but not limited to, what was recorded of statistics, as 75% of the population of the Islamic world aged 13-19 years, 80% of whom use the Internet and social sites, a percentage that also reflects the increase in the number of long hours they spend in front of these sites... which was confirmed by Michael Fausoon' study (2010) that most of the "internet cafe" users are young people and adolescents, and they widely misuse it... (Borouba and Kettaf, 2020)**.**

In return, a study was conducted in Canada on a sample of 5329 male and female students, 19% of whom were victims of cyber bullying. (Sampasa-Kanyinga, & Hamilton, 2015)... (Al Brachidia, March 2020).

The methodological fact indicates that it is difficult to overcome this phenomenon due to its rapid widespread and dangerous effects, and it was prevalent before this period, but exacerbated with the emergence of this critical period, i.e. the outbreak of the Corona epidemic and the mandatory quarantine. And from an educational point of view, cyber bullying may lead to a general deterioration of the mental health of the student in school, including a low level of academic achievement, as it takes a lot of time in the negative exploitation of these sites and the practice of bullying behavior instead of providing effort in viewing, researching and reviewing lessons, especially with the privacy of this stage of growth, which crystallizes mainly in the suffering of the student adolescent from psychological crises and conflicts that have repercussions in the crystallization and formation of his personality, as this stage, in particular, is a fertile ground in which psychological disorders such as stress, anxiety and violent behavior spread…

Among the researches that emphasized the deterioration in academic learning motivation in general for the student in light of his orientation towards cyber bullying:

- Al-Rimawi and Abdul Qader (2019) study, which concluded that the level of achievement motivation among secondary school students in the schools of the suburbs of Jerusalem, whose number reached 300 students in light of their electronic bullying. (Al-Rimawi and Abdel Qader, 2019).

Based on the foregoing, the problem of the study revolves around the following main question:

- Is there a relationship between bullying via social media and the academic achievement of secondary school students in light of the Corona pandemic (covid-19)?

Hence the following sub-questions:

- Do you find statistically significant differences in bullying through social networking sites among secondary school students due to the variable of gender, academic level and scientific specialization in light of the Corona pandemic (covid-19)?

- Are there statistically significant differences in the academic achievement of secondary school students due to the variable of gender, academic level and scientific specialization in light of the Corona pandemic (covid-19)?

The objectives of this study are as follows:

- Confirming the existence of a relationship between cyber bullying and academic achievement among a sample of secondary school students in light of the Corona pandemic (covid-19).

- Detection of differences in bullying through social networking sites according to the gender variable, academic level and scientific specialization in light of the Corona pandemic (covid-19).

- Detection of differences in academic achievement according to the gender variable, academic level and scientific specialization in light of the Corona pandemic (covid-19).

- Attempting to find solutions to the phenomenon of bullying through social networking sites for the educated teenager in order to avoid the low level of his academic achievement.

2. Study Concepts:

2.1. Social networking sites: They are electronic technological applications, based on the second generation of web systems, to achieve communication, exchange and interaction between different individuals around the world, either by written, audio or visual correspondence, through social communication technology that includes the use of many sites. The most important of which are: Facebook, Twitter, YouTube, E-mail, Web browsing, Mailing Lists and Chatting... By saving effort and time, which achieves efficiency and effectiveness in transmitting and processing information. (Borouba and Kettaf, 2020).

Social networking sites exist within the ecologies of virtual space, and they have contributed to changing the extent and nature of human communication, without cost and overstepping the limits of distances, thus bringing the temporal and spatial intervals between individuals and groups closer without taking into account the ethnic, ideological and ideological differences in the transfer and promotion of information and experience.

2.2. Electronic bullying: Cyber bullying is one of the psychological and social concepts that have been talked about a lot in recent times and have become a threat to mental health in general, especially young people as they are more users of cyberspace, as well as the privacy of the stage of

development that distinguishes them from other segments of society, including the educated group, where UNESCO confirmed in its scientific meeting entitled: "Policy Dialogue on Bullying and Education" organized by the Regional Center for Educational Planning in the United Arab Emirates (April 2019) that this phenomenon affected one third of school students and directly affected their mental health, especially their academic achievement. Indeed, it is a huge global problem that affects all countries, whether developed or underdeveloped, to varying degrees. Before talking about cyber bullying, we refer here to the definition of bullying in general: Al-Sabbaheen and Al- Qudah define it as inflicting harm on one or more individuals physically, psychologically, emotionally or verbally. It also includes threats of physical or physical harm with a weapon, extortion, civil rights violation, assault, beating, working within gangs, attempted murder or threats, in addition to sexual harassment. (Al-Subbeen and Al-Qudah, 2013, p. 8).

It is also defined as a form of abuse directed by an individual or group towards another individual or group that is often physically weaker. Bullying is a form of repeated actions over time that involves an imbalance of power for a child with greater strength, or for a group that attacks another group which is less powerful. Bullying can be through physical harassment and physical assault, or other more subtle coercive methods such as manipulation, bullying, intimidation, bullying and other aggressive methods designed to intentionally harm another person with the aim of gaining power over them. Bullying can be defined in many different ways, and it ranges from verbal, physical, relational and online bullying. Bullying can happen anywhere: at school, on the road, in the family, in clubs, in public places, on the phone, on the Internet, and sometimes it may amount to a crime. (Al-Ayadi, 2020, pp. 7-8).

As for cyber bullying, the Arab Center for Educational Research for the Gulf States indicated that it is the use of information and communication technologies, to carry out deliberate and repeated aggressive behavior by an individual or group against a victim, who cannot defend himself easily. Cyber bullying is usually practiced outside the school, and sometimes found among students in schools. Cyber bullying is similar to traditional bullying in that it is an aggressive behavior harmful to the individual and the group, but there is a difference between both types represented in two basic

dimensions: the effect of bullying on reputation, and the imbalance of power between the bully and the victim. (The Arab Center for Educational Research for the Gulf States, 2020, p. 30).

Cyber bullying is categorized into:

- Written bullying (verbal or written: phone calls, text messages, and email).
- Visual bullying (visual forms: posting bad or indecent images).
- Bullying by excluding an individual from Internet groups or chatting.
- Bullying by impersonation is the most advanced type and is represented in taking advantage of the theft of a person's identity and access to his personal information or using another person's account.(Al Brachidia, March 2020).

The concept of bullying is determined procedurally by the degree to which each male and female student from a sample obtains study on bullying questionnaire through social networking sites prepared by Amina Ibrahim El-Shennawy (2014).

2.3. Academic achievement: Attainment in the language is proven and remains to be obtained. Technically speaking, academic achievement is one of the concepts that have not settled on a specific and clear meaning due to the difference and overlap between them. There are some who define it as:

- "The learning process we want to happen."
- And who defines it as: "The knowledge that the child obtains through a school program in order to adapt it to the environment and school work."
- It is also: "a specific level of performance or competence in school work as established by teachers or through standardized tests or both."
- It is also: "the amount of knowledge or skill that has been acquired by the individual as a result of training and passing through previous experiences."
- Also it is: "The general total of students' scores in all academic subjects, obtained in certain tests prepared by the professor, whether these tests were oral or written or both, all of this is the result of the impact of several inputs represented in the curriculum, teaching methods and teaching aids." (Esmaili, 2019, pp. 38-39).

So, we note the difference of researchers in their view of achievement. Some of them viewed it as including the processes of learning facts, principles, and information, in addition to learning values and different patterns of behavior... while others looked only at the results obtained by students in achievement tests.

The concept of academic achievement is determined procedurally by the degree obtained by each male and female student from a sample study on study achievement questionnaire, authored by Safaa Qanati (2016).

2.4. Corona Virus (Covid 19): "Virus" is a Latin term, first used by Louis Pasteur and means "Toxin" which is a small organism lives inside the cell of living organism and reproduces through the process of reincarnation and it is a small pathogen that is easily transmissible into living organisms... (Le Faou, 2012).

Corona virus, as explained by the World Health Organization (October, 2020), is a widespread family known to cause diseases ranging from the common cold to more severe illnesses such as Middle East Respiratory Syndrome (MERS) and severe acute respiratory syndrome (SARS). As for COVID-19, it is the disease caused by the emerging corona virus called SARS-COV-2. The organization first discovered this novel virus on December 31st, 2019, after a group of viral pneumonia cases were reported in Wuhan, People's Republic of China. Its main symptoms are: high temperature, dry cough and fatigue... (WHO, 2020).

The Corona virus / Covid-19 has caused the loss of large proportions of the world's population and the collapse of the global economy, the deterioration of health services, education and the endangerment of national security... This virus has tired world leaders, virologists, epidemiologists, and doctors from addressing and controlling it... (Al-Boughisi Al-Azhari, 2020). This painful reality, as well as the unknown repercussions of this epidemic, will inevitably have a negative impact on mental health, which raises concern for the future among members of society...

3. Study Approach:

Since the current research seeks to study the problem of bullying through social networking sites by describing and expressing it qualitatively and quantitatively, then revealing the relationship between it and academic achievement by clarifying: gender, academic level and scientific specialization among a sample of high school students in light of the Corona pandemic, the appropriate method is the descriptive analytical method.

4. The Limits of the Study:

The current study was done chronologically during the academic year 2020/ 2021, spatially in five secondary schools in the state of Setif, east of

Algiers, as for humans, the two study tools were applied to a sample of the pupils who attended the above-mentioned secondary schools, who numbered 100 male and female students.

5. Study Sample and its Characteristics:

The study sample was randomly selected from the school pupils in five different high schools officially registered during the school year 2020/ 2021, because this method honestly reflects the original community and brings it closer to objectivity in analyzing the results obtained, and it consists of 100 male and female students. Their ages ranged between 15 and 24 years, with a mean age of (17.46) and a standard deviation of (1.61). The following table shows the characteristics of the sample:

Table 1. The Characteristics of the Study Sample:

Sex		Academic Level			Scientific Specialization						
Male	Female	First Year	Second Year	Third Year	Practical Sciences	Mathematics	Mathematics Technical	Philosophy and Literature	Foreign languages	Economics and Management	
34	66	27	26	47	49	04	16	18	10	03

Source: Done by the Researcher.

6. Study tools:

After a review of the literature and studies related to the subject, we found that the most appropriate way to clearly reveal the relationship between bullying through social networking sites and the academic achievement of high school students is to use the following questionnaires:

- The electronic bullying questionnaire, authored by Amina Ibrahim Al- Shennawi (2014), which contains 26 items.
- Academic achievement questionnaire, authored by Safaa Qanati (2016), which contains 29 items distributed over three axes:

➢ **The first axis:** the teacher's good educational behavior leads to improving the student's academic achievement and includes 10 items.

➢ **The second axis:** the intensity of the study programs leads to a low level of academic achievement for the student and includes 11 items.

➢ **The third axis:** the school peer group contributes to low academic achievement and includes 8 items.

The psychometric properties of the social media bullying scale were calculated:

A- Honesty: The internal validity method was used to measure bullying through social networking sites using correlation coefficients between items and the total score, and the results are presented in the following table:

Table 2. Shows Coefficients of Correlation of Items with the Dimensions of Bullying Scale across Social Networking Sites:

Item No	Correlation coefficient	Item No	Correlation coefficient	Item No	Correlation coefficient
1	0.41**	10	0,34**	19	0.43**
2	0.43**	11	0.45**	20	0.41**
3	0,49**	12	0.42**	21	0.52**
4	0.58**	13	0.46**	22	0.48**
5	0,48**	14	0.37**	23	0.45**
6	0.53 **	15	0,43**	24	0,50**
7	0.47**	16	0,40**	25	0.42**
8	0.52**	17	0.54**	26	0.37**
9	0.29**	18	0.53**		

** Correlation is D at 0.01
        Source: Done by the Researcher Depending on SPSS Results.

Table No. 02 shows the correlation coefficients between items with the total score of the scale are acceptable and statistically significant at the 0.01 level, where the correlation coefficients between items with the total score ranged between (0.29) and (0.58), so the items reach the minimum required for internal consistency (0.30), and therefore the items of the scale are consistent with the total score and are true.

B- Stability:

The stability of social media bullying scale scores was estimated using Cronbach's alpha internal consistency method, and Katman's half-split method:

Table 3. Alpha Stability Coefficients and Hash Halftones for the Electronic bullying Scale:

The Scale	Number of Items	Alpha Coefficient	Dark Coefficient
Bullying on social media	26	0.84	0.84

Source: Done by the Researcher Depending on SPSS Results.

Table No. 03 shows that Cronbach's alpha and stability coefficient Katman are high, with a value of (0.84), which confirms that the degrees of bullying scale through social networking sites have high stability.

As for psychometric properties of a scale academic achievement is as follows:

A- Honesty: To verify the validity of the academic achievement measure, the internal consistency was used by calculating the correlation coefficients between the items and the dimensions to which they belong:

Table 4. Correlation Coefficients of Items with the Dimensions of the Academic Achievement Scale

The Dimension	Item No	Correlation Coefficient	The dimension	Item No	Correlation Coefficient
Good Teaching Behaviour	1	0.33**	School Peer Group	16	0,40**
	2	0.56**		17	0.52 **
	3	0.59**		18	0.65**
	4	0.55**		19	0,50**
	5	0,67**		20	0.38**
	6	0.61**		21	0.39**
	7	0.58**		22	0.46**
	8	0.55**		23	0.58**
	9	0.47**		24	0.63**
	10	0,33**		25	0.54**
Intensity of Study Programs	11	0.45**		26	0.52**
	12	0.38**		27	0.43**
	13	0.46**		28	0,49**
	14	0,47**		29	0,47**
	15	0,43**			

** Correlation is D at 0.01

Source: Done by the Researcher Depending on SPSS Results.

Table No. 04 shows the correlation coefficients between items with the dimensions to which they belong are acceptable ranging between (0.33)

and (0.67), statistically significant at (0.01), where the correlation coefficients of items with good educational behavior ranged between (0.33) and (0.67), and between items and the intensity of study programs ranged between (0.38) and (0.65), and between items and the school peer group ranged between (0.43) and (0.63). Hence, these results showed that the items' correlation coefficients with the dimensions to which they belong exceed the required minimum (0.30), which is a statistical function at 0.01, which confirms the consistency of the items with the dimensions they fall within and therefore it is true.

Table 5. Correlation Coefficients of Items with the Dimensions of the Academic Achievement Scale

Dimensions	Total marks
Good Teaching Behavior	0,58**
Intensity of Study Programs	0,57**
School Peer Group	0.66**

** Correlation is D at 0.01

Source: Done by the Researcher Depending on SPSS Results.

It is clear from Table No. 05 that the correlation coefficients of the dimensions with the total score of the scale are high and statistically significant at the 0.01 level, where the correlation coefficient of the dimension of good educational behavior with the total score is (0.58), and the dimension of the study program intensity with the total score is (0.57). And between the school peer group dimension and the total score (0.66). Therefore, the dimensions of the scale are consistent with the total score, which confirms the validity of the academic achievement scale.

b- Stability:

The stability of the academic achievement scale with its dimensions (good educational behavior, intensity of study programs, school peer group) was estimated using Alpha Cronbach method, as shown in the following table:

Table 6. Alpha Stability Coefficients for the Academic Achievement Scale:

Scale Dimensions	Number of Items	Alpha Coefficient
Good Teaching Behavior	10	0,70
Intensity of Study Programs	11	0.63
School Peer Group	8	0.61
Overall Scale	29	0.63

Source: Done by the Researcher Depending on SPSS Results.

It is clear from Table No. 06 that the alpha stability coefficients for acceptable scale dimensions amounted to (0.70) in the dimension of good educational behavior, in the dimension of the intensity of study programs (0.77), and in the dimension of the school peer group (0.61), as was the coefficient of stability. The alpha of the overall scale is acceptable (0.63), and this confirms that the academic achievement scale has acceptable stability.

7. Statistical Methods Used:

The data obtained through the program of Statistical PACKAGE SPSS was completely unloaded and the treatment was by the following statistical methods:

➢ Kolmogrove-Smirnov test and The Shapiro-Wilk test to verify the moderation of the data distribution of the study variables (bullying through social networking sites, academic achievement).

➢ Linear Pearson Correlation Coefficient to reveal the correlation between bullying through social networking sites and academic achievement among secondary school students.

➢ Three-way-Anova analysis of variance test to reveal the significant differences in each of bullying through social networking sites, and the academic achievement of high school students according to the variables of gender, academic level and academic specialization.

8. Presentation and Discussion of the Study Hypotheses:

To test the results of the hypotheses, the moderation of the distribution of the study data (bullying through social networking sites, academic achievement) was verified using the Columgrove-Smirnov test and Shapiro-Wilk test, which showed that the data are moderately distributed because the probabilities are greater than the significance level (0.05), and therefore the study hypotheses are tested using parametric statistical tests.

8.1. Displaying and Interpreting the General hypothesis: "There is a correlation between bullying through social networking sites and academic achievement among a sample of high school students in light of the Corona / Covid 19 pandemic."

To test this hypothesis, the linear Pearson correlation coefficient was used to detect the relationship between bullying through social networking sites and academic achievement among a sample of high school students, and the following table shows the results of the significance of the linear Pearson correlation coefficient between the two variables.

Table 7. The Results of Pearson's Linear Correlation Coefficient between Bullying via Social Media and Academic Achievement:

Study Variables	Academic Achievement
Bullying on Social Media	- 0,237[**]
Probability Value	18.00
Number of People	100

Correlation is D at 0.05[**]

Source: Done by the Researcher Depending on SPSS Results.

Table No. 07 shows that bullying through social networking sites is negatively and statistically related to the academic achievement of high school students in light of the Corona pandemic (Covid-19), so that the Pearson correlation coefficient between the variables of bullying through social networking sites and academic achievement is negative (- 0,237), and D Statistically because the probability value (0.018) is smaller than the significance level (0.05).

The relationship between the two variables is inverse and statistically significant, as it indicates that the higher the grades of secondary students in bullying through social networking sites, the lower their degrees in academic achievement, and vice versa, that is, the lower their degrees in academic achievement, the higher their degrees in bullying through social networking sites. Accordingly, the results of the hypothesis concluded that there is a statistically significant negative correlation at the 0.05 level between bullying through social media sites and the academic achievement of high school students in light of the Corona pandemic. This is explained by the repercussions or rather the effects of the Corona pandemic, as it is not

only a health crisis but a humanitarian crisis in the first place, in addition to several factors, including those circumstances surrounding the individual himself, family factors, and others specific to society and peer group the media and the school environment...

Indeed, the quarantine period resulting from the Corona pandemic (Covid-19) has had many negative effects on family relations and the moral system, as well as social ties, and thus the mental health of the individual and his social adaptation in general. The situation worsened with the pandemic in the fragility of family security, the conditions of isolation and the current low standard of living, which is violence or what is known as abuse or bullying. With the addiction of children and adolescents in this period to the virtual space and the wide range of social networks it contains, this bullying has turned into electronic.

In the same context, the United Nations Social and Economic Commission for Western Asia indicated that the phenomenon of domestic violence has increased and worsened due to the Corona virus and its social and psychological repercussions... (Amenchuk, 2020).

This was also confirmed by a study by researchers ''Abedi Sana'' and "Labyad Linda" (June 2021) from the University Center in Mila, Algeria, entitled: "The Socio-Psychological Effects of the Corona Pandemic on Algerian Society", as the spread of fears and anxiety reinforced addiction to social networking sites, as well as disputes and family violence... (Obeidi and Labyad, June 2021).

Ali Saadi Abdul-Zahra Jabbar from the Iraqi University (January, 2021) indicated in his study on the social effects of the Corona pandemic that the weakness of psychological immunity from having the ability to face crises and psychological pressures, bearing difficulties and troubles, and resisting the resulting feelings and thoughts makes the individual vulnerable to many disorders such as: violence, depression, fears and anxiety... (Jubeir, January 2021).

Many researchers from the Chinese Association for Mental Health have unanimously agreed that continuous browsing of social networking sites in light of the Corona pandemic and looking at the content of unfounded publications raises terror, confusion, fear and pressures ... in the individual, which leads him to a charge of anger, and as a result of lack of control and self-control leads to him To cyber bullying, as cyberspace has

become in this period a cradle for hate speech, bullying and violence...(Chinesse Association For Mental Health, March 2020).

As for the circumstances surrounding the individual himself, the teenager usually feels frustrated and alienated due to several factors: his lack of acceptance in the adult society easily, his inability to regress to an earlier stage, his lack of attention to him and his personality, abilities and tendencies it generates emotional responses in varying degrees according to the basic personality and the nature of social support, and among these reactions, anger, because there are obstacles that prevent him from achieving his goals, which leads him to practice bullying behavior, which has been dominated by the electronic character.

The results of the general hypothesis agreed with the results of the study of Gracie Tarab Issa (2012), which concluded that there is a statistically significant inverse relationship between bullying behavior and academic self, as well as academic achievement, as this study included a sample consisting of 367A male and female student in the upper primary stage from the Nazareth region in Palestine... (Gracy, 2012).

The role of parental relations and the poor academic achievement of secondary school students in the emergence of bullying through social networking sites, agreed with the results of the study of Sana Latif Hassoun (2018): "Bullying and its Relationship to Parenting Methods and Academic Achievement Among Middle School Students". It included 300 students, and found that there was a weak and negative relationship between bullying, assertiveness and democracy for the mother, that is, the more assertiveness and democracy, the less bullying, and consequently the higher the level of academic achievement. (Hassoun, 2018).

8.2. Displaying and Interpreting the results of the first partial hypothesis: "There are statistically significant differences in bullying through social media sites among secondary school students due to the variable of gender, academic level and scientific specialization in light of the Corona pandemic (covid-19)."

To test this hypothesis, three-way analysis of variance was used to identify the differences in bullying through social networking sites according to the variables of gender, academic level and scientific specialization, considering the interaction between the independent variables:

Table 8. The results of the Three-Way Variance Analysis to Indicate the Differences in Bullying through Social Networking Sites According to the Variables of Gender, Academic Level and Scientific Specialization:

Contrast Source	Sum of Squares	Degrees of Freedom	Mean Squares	q Value	Probability Value
Gender	0002	1	0002	0006	0940
Academic Level	0,321	2	0,161	0488	0,616
Scientific Specialization	0,285	5	0,057	0, 173	0,972
gender x Educational Level	0,182	2	0091	0,277	0,759
Gender × Scientific Specialization	0,083	3	0028	0,084	0969
Academic Level × Scientific Major	0,402	5	0080	0,244	0,942
Gender x Educational Level x Scientific Specialization	0,445	3	0,148	0,450	0,718
The Error	25,355	77	0,329		
Total	28,544	99			

Adjusted Multiple Correlation Coefficient (0.142 -)

Source: Done by the Researcher Depending on SPSS Results.

Table No. 08 shows that the differences in bullying through social networking sites according to the variables of gender, academic level and scientific specialization are not statistically significant at the 0.05 level.

The probability value (0.940) showed that there are no statistically significant differences in bullying through social networking sites according to the gender variable, it is greater than the significance level 0.05 (F = 0.006; p > 0.05), and the probability value (0.616) revealed that there were no differences in bullying through social networking sites according to the academic level variable (F =0,488; p > 0.05), and the probability value (0.972) also showed that there were no statistically significant differences at

the 0.05 level according to the variable of scientific specialization.(F = 0.173 ; p > 0.05).

With regard to the interaction of the independent variables, the interaction of gender with the academic level, and the interaction of gender with the scientific specialization, there were no statistically significant differences at the 0.05 level, as there are no differences in bullying through social networking sites according to the interaction of gender with the academic level. (F =0,277; p > 0.05), according to the interaction of gender with scientific discipline (F =0.084; p > 0.05). In addition to the absence of differences in bullying through social networking sites according to the interaction of the academic level with the scientific specialization (F =0,244; p > 0.05), and in the triple interaction between gender, academic level and scientific specialization, there are no differences between secondary school students in bullying through social networking sites (F =0,450; p > 0.05).

The independent variables (gender, academic level and scientific specialization) and their interactions explained a small percentage of (14.2%) of the variance in bullying through social networking sites (R2 = -0.142) among secondary school students. Therefore, there are no statistically significant differences at the 0.05 level in bullying through social networking sites among secondary school students due to the variable of gender, academic level and scientific specialization.

So the first partial hypothesis resulted in the following:
- There are no statistically significant differences in bullying through social networking sites according to the gender variable.
- There are no statistically significant differences in bullying through social networking sites according to the academic level variable.
- There are no statistically significant differences in bullying through social networking sites according to the variable of scientific specialization.

In addition to the absence of significant differences related to the interactions of the independent variables: the interaction of gender and academic level, gender and scientific specialization, academic level and scientific specialization, as well as in the tripartite interaction between gender, academic level and scientific specialization.

Bullying through social networking sites in light of the Corona pandemic (Covid-19) has spread to both male and female secondary school students at all levels, as well as all streams at this stage of education:

Experimental Sciences, Mathematics, Technical Mathematics, Literature and Philosophy, Foreign Languages and Management and Economics.

Many Social Sciences and Humanities researchers indicated that there is a great demand for social networking sites among adolescents in various ways (positive or negative and sometimes ambiguous), and this represents a clear threat to the stability and balance of socialization institutions, including the family in particular, the educational institution, the home, the street, or other spaces for young people (Borouba and Kataf, 2020).

There is no doubt that with the conditions of quarantine, the closure of educational institutions and the obligatory distance education, which did not exclude gender, academic level or scientific specialization, and the desire of these people to virtual space, including social networking sites, this communication has transformed and even extended because this it cannot be denied before this period from the outbreak of the Corona crisis to hate speech, hatred, abuse and harm.

Although there are studies that confirm the prevalence of cyber bullying among males other than females, including the study of Al-Ammar Youssef Abdullah (2016), which concluded that there are statistically significant associations between cyber bullying and Internet addiction in favor of males. The study sample consisted of 140 students of applied education in the State of Kuwait. (Al-Ammar, 2016).

Another study by researchers Ibrahim Abdel-Qader Muhammad and Talib Al-Rimawi Omar (September, 2019) on cyber bullying and its relationship to academic achievement motivation among a sample of 300 high school students in the suburbs of Jerusalem. (Ibrahim Abdel Qader & Talib Al-Rimawi, September 2019).

The study of the research team Olnik-Shams, Heymann and Eden (2017) shows that low body estimation is a prominent indicator among victims of cyber bullying, and in that sample the prevalence of cyber bullying was 45%, and body dissatisfaction was associated with cyber bullying even at an early age from middle school in a sample of 6944 students.

Another study by Ramos Salazar (2017) indicated to explore personality features using the model of the big five personality factors among victims of cyber bullying among a sample of 910 adolescents, and

higher degrees of neuroticism, openness, and acceptance were noted among the victims.

Another study by a team of researchers Kenny, Sullivan, Klagan and Mulshaw, and also Kelly that the victim's dissatisfaction with his body increases his chances of being subjected to cyber bullying. The results of a cross-sectional study showed that extremely obese girls were more vulnerable to cyber bullying, as well as adolescent boys who suffer from obesity.

The study of Zilla et al (2018) found that cyber bullying is more likely to occur in victims after 11 pm, as applied to a Hungarian sample of 6,237 adolescents, linking cyber bullying to excessive Internet use as well as drug abuse. It found that 30% of teens spend more than six (06) hours a day on social media, 16% of them received offensive messages, 12% reported seeing embarrassing pictures of themselves online without their permission and 24% of victims reported being bullied by ahead of their peers at school. (Al Rashidiya, September 2020).

The results of the first partial hypothesis also agreed with the study of Mubaraka Makrani (2018), which aimed to study cyber bullying and its relationship to social anxiety in a sample of 106 male and female second year secondary school students who are addicted to social networking sites in Ouargla, which resulted in no statistically significant differences in cyber bullying. The study sample has addicts to social networking sites, according to gender, as well as the educational level of the parents. (Maqraani, 2018).

8.3. Displaying and interpreting the results of the second partial hypothesis: "There are statistically significant differences in the academic achievement of high school students due to the variable of gender, academic level and scientific specialization in light of the Corona pandemic (covid-19)."

In the same way in which the second partial hypothesis was treated, the third hypothesis was tested using a three-way analysis of variance to detect differences in academic achievement according to the variables of gender, academic level and scientific specialization, taking into account the interaction between the independent variables of gender, academic level and scientific specialization in their effects on academic achievement. The results obtained are shown in the following table:

Table 9. The results of the Three-Way Analysis of Variance to Indicate the Differences in Academic Achievement According to the Variables of Gender, Academic Level and Scientific Specialization

Contrast Source	Sum of Squares	Degrees of Freedom	Mean Squares	q Value	Probability Value
Gender	0021	1	0021	0,329	0,568
Academic level	0197	2	0099	1,533	0222
Scientific specialization	0195	5	0039	0,607	0,695
gender x educational level	0,084	2	0,042	0,654	0,523
Gender × scientific specialization	0,151	3	0,050	0,784	0,506
Academic level × scientific major	0,086	5	0017	0,267	0,930
Gender x educational level x scientific specialization	0,118	3	0039	0,613	0,608
The error	4,956	77	0,064		
total	5,947	99			

Adjusted Multiple Correlation Coefficient (0.072 -)

Source: Done by the Researcher Depending on SPSS Results.

The results of Table No. 09 show that there are no statistically significant differences at the 0.05 level in academic achievement due to the variables of gender, academic level and scientific specialization.

The probability value (0.568) showed that there were no statistically significant differences in academic achievement according to the gender variable because it is greater than 0.05.(F = 0.329; p > 0.05), the probability value (0.222) revealed that there were no differences in academic achievement according to the academic level variable (F =1,533; p > 0.05), and the probability value (0.695) also revealed that there were no

statistically significant differences at the 0.05 level according to the specialization variable (F = 0.607; p > 0.05).

In addition, Table No. 09 shows that there are no statistically significant differences at the 0.05 level in academic achievement according to the interaction of gender with academic level, gender interaction with scientific specialization, academic level interaction with scientific specialization, and interaction between gender, academic level and scientific specialization. There are no differences in academic achievement according to the interaction of gender with academic level (F =0,654; p > 0.05), according to the interaction of gender with scientific discipline (F =0,7854; p > 0.05), and according to the interaction of the academic level with the scientific specialization (F =0,267; p > 0.05), and according to the tripartite interaction between gender, academic level and scientific specialization, which revealed no differences in academic achievement (F =0,613; p > 0.05) among secondary school students.

The independent variables (gender, academic level, scientific specialization) and their interactions translated a small percentage of variance amounting to (7.2%) of the variance in academic achievement (R2 = - 0.072) among secondary school students. Thus, there are no statistically significant differences at the 0.05 level in the academic achievement of secondary school students due to the variable of gender, academic level and scientific specialization.

So the second partial hypothesis resulted in the following:
- There are no statistically significant differences in academic achievement according to the gender variable.
- There are no statistically significant differences in academic achievement according to the academic level variable.
- There are no statistically significant differences in academic achievement according to the variable of scientific specialization.

In addition to the absence of significant differences related to the interactions of the independent variables: the interaction of gender and academic level, gender and scientific specialization, academic level and scientific specialization, as well as in the tripartite interaction between gender, academic level and scientific specialization.

The results of the second partial hypothesis agree with the results of the study of Abdel Moneim (2005) entitled: "The Relationship Between the

Level of Ambition and Academic Achievement in Some Personality Traits," which targeted a sample of 287 male and female students, as it confirmed the absence of a statistically significant relationship between the level of ambition and academic achievement for the study sample members for the gender variable.

It also agreed with the study of Rey et al. (2006), which sought to identify the nature of the relationship between social adjustment and academic achievement among members of a sample of 100 male and female students, and concluded that there is no statistically significant relationship between social adjustment and academic achievement among the study sample according to the gender variable, and the school year, as well as Social status.

9. Conclusion:

In light of the objectives, questions and the findings of the study it can be said that the stage of adolescence is a sensitive stage, and characterized by changes affecting the individual in all physiological, psychological, mental, social, educational and educational aspects. What affects the level of academic achievement, especially when it comes to the schooled teenager is the frequent use of social networking sites and electronic bullying methods.

The current study found the following:

- There is a relationship between bullying through social networking sites and academic achievement among a sample of secondary school students.
- There are no statistically significant differences in bullying through social networking sites among secondary school students according to the variable of gender, academic level and scientific specialization.
- There are no statistically significant differences in the academic achievement of secondary school students according to the variable of gender, academic level and scientific specialization.

It is possible to suggest the following:

- Adopting educational guidance curricula to guide students to positively exploit the digital space, in return highlighting the dangers of its wrong use in light of the technological acceleration on society and the individual.
- Working on developing preventive school programs to confront the problems that cyber bullying may pose among high school students.
- The necessity of periodic participation and monitoring of parents of children and youth Internet users in the digital space.

- Involve families in school meetings and decisions to confront the phenomenon of cyber bullying.

- Since young people are increasingly using digital technology, which affects their lives and future, digital policies and products must reflect their needs, especially since most of the designs of this virtual world are directed at adults.

- Conducting further studies to know the level of cyber bullying, its forms, causes and risks at the national and local levels in light of variables not included in our current study..

- Caring about the development of psychological security to reduce cyber bullying behavior.

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