

# **Psychosocial effects of the Corona pandemic and its relationship to students' attitudes towards hybrid education**

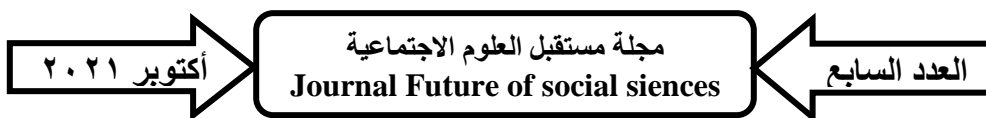
**Prepared by**

**Dr. Mohamed Reda Gad Hawass**

**Assistant Professor in the Casework Department**

Higher Institute for Social Work in Benha

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**Abstract:**

The study aimed to determine the level of psychological and social effects facing the university student in light of the spread of the Corona pandemic, and to determine the relationship between the level of psychological and social effects and students' attitudes towards hybrid education. This study belongs to descriptive studies. The study used the social survey method with a sample number of (375) individuals. The researcher applied an electronic questionnaire form for students of the Faculty of Social Work and students of the Faculty of Engineering at Helwan University. The study found the most important psychological and social effects of the Corona virus pandemic, which are (fear of infection, anxiety about the future, boredom and distress, anxiety and tension, frustration and depression, social isolation, continuous disagreement with siblings due to the permanent presence at home). The results also found a positive relationship between the psychological effects of the Corona virus pandemic and students' attitudes towards synchronous and asynchronous education, and a direct relationship between the social effects of the Corona virus pandemic and asynchronous education, and ultimately the results proved a direct relationship between the psychological and social effects of the corona virus pandemic as a whole and students' attitudes towards hybrid education.

**Keywords:** Psychological effects, Social effects, Corona pandemic, University students.

### **First: Introduction to the problem of the study:**

The coronavirus in its new form continues to spread in most countries of the world after it began to spread in China in particular, which formed and poses great concerns among members of society, and affected their lifestyle in psychological, social, economic and health aspects.

According to the statistics of the World Health Organization 2020, the number of deaths in the world is about (1776572) people , while the number of infected people is (81362561) people (WHO, 2020), which confirms the spread of the Corona virus abnormally , while in the Egyptian society, the percentage of people infected with the Corona virus in Egypt reached(136,644) people , while the number of deaths reaches( 7576 ) people. Central Agency for Mobilization and Statistics 2020 ).

As a result, members of society are in a state of panic, anxiety, and tension on a large scale that humanity may not have witnessed before, at least not for a short period of time (Velavan&Meyer, 2020).

The Corona virus also caused negative social and psychological effects for members of society, including Egyptian university students who are constantly exposed and result in stress and fatigue. These negative effects were isolation, fear, anxiety and psychological loneliness, as well as social distancing (Dong&Bouey, 2020).

In addition to the sense of alienation and distress embodied in depressive symptoms (Zhai&Du, 2020).

The study of (Khadija September 2020) confirmed that one of the negative psychological effects is the feeling of sadness and depression, which results in poor concentration and individual panic, which causes a weakness in autoimmunity, which the immune system believes that the various parts of the body are enemies that it will start attacking, which will weaken and deteriorate the body.

The results of the study (Abdul Nasser Al-Sayed , 2021) confirmed the availability of psychological problems resulting from the Corona pandemic, which were the following ( fear of infection with the virus , anxiety about the future, boredom and distress , psychological loneliness, psychological pressures, frustration and depression) , and the results of the study (Wang et al, 2020) identified the social effects of the Corona pandemic, which were lack of communication with family and friends , difficulty enjoying entertainment , social isolation,

and constant disagreement with siblings because of the permanent presence at home .

Egyptian university students have faced many difficulties, which have affected all other segments of the local and international community, as university students have faced many educational problems due to the Corona virus (Youness Maleh, Youness Dabnichi,2020).

The results of Deemah A. AlAteeq et al, 2020) reported that there are high levels of psychological stress among university students about the interruption of education and changing the usual methods of education during the beginning of the period of the coronavirus outbreak.

The Corona crisis has asked university education to search for new answers to the major questions around the continuity of education with its philosophy , content , methods , methods , times , and places. One of the answers was what the study of (Bonk&Graham, 2004) indicated that the use of information and communication technology through various e-learning tools must be combined with traditional education and social interactions with colleagues and teachers face to face in the traditional classroom to enrich the learning process and develop skills. This is known as hybrid education, and this was confirmed by the study of (Amal Ibrahim& Mohammed Kamal,2020), as it considered that hybrid education is the most important modern methods that help university students to communicate positively with the educational process.

Hybrid education is defined as that type of traditional university education that is provided to students of the usual university education age with a percentage part of the courses being taught through the network periodically to obtain a first university degree. The network uses interaction with educational content and communication with some faculty members in order for students to acquire e-learning skills remotely (Heba Mohamed et al.,2005,45).

In this context, and in line with the current circumstances surrounding the world due to the damage caused by the Corona virus and to reduce the number of deaths and infected with the Corona virus, and to take precautionary measures to prevent the spread of the virus during the educational process of Egyptian university students, it is possible to rely on hybrid education, which seeks to create a

cooperative educational environment characterized by activity, interaction and social participation.

The different types of hybrid education are one of the most important pillars that can be employed in teaching and learning according to specific and clear objectives that can be relied upon in developing and updating their quantitative and qualitative processes and outputs through researching new strategies and methods to face many of the challenges facing the educational process during the Corona pandemic. (Muhammad Ali Salama ,2015,124)

Hybrid learning styles are the following: the integration of e-learning and traditional education, the integration of self-learning programs and cooperative learning programs, and the integration of synchronous e-learning programs and asynchronous e-learning programs, which is the commonly used type that links e-learning and traditional education (Harrison, 2003).

The study of (Simpson, 2003) indicated that hybrid education helps to exchange ideas through written online communication in addition to developing the e-learning skills of learners. Students control the learning process, practice performance, and receive and deliver learning materials (Greg, 2009). It also achieves a high level of presence and electronic social interaction among learners through participation in forums and the use of e-mail services (Kuhlemeier&Hemker, 2007). It provides learning opportunities and feedback remotely through the use of synchronous and asynchronous communication tools that provide online learning services in new, more interactive learning environments (Clarke, 2002). It facilitates the exchange of information and ideas among learners through the use of tools available in the online learning environment (Simpson, 2005).

This was confirmed by a study (Bennrtt et al , 2007) that hybrid education helps students acquire electronic communication skills as a result of Internet-based learning, and the hybrid learning environment also allows the learner to build his knowledge of himself through research and discovery through the various learning sources provided by the hybrid learning environment, and through interaction within the collaborative context with peers and friends in the face-to-face learning environment (Chew, 2008)

(Milheim, 2006) confirms that hybrid education helps students acquire skills dealing with information and communication

technologies and develop their skill in searching for and selecting information, and the study (Gwyneth, 2007) proved the effectiveness of hybrid education in developing motivation and maintaining the impact of learning , and this is what the results of the study (Vaughan, 2007) indicated that hybrid education provided students with great flexibility in learning time and provided students with the opportunity to self-learn and self-reliance in obtaining information .

Therefore, hybrid education has become the focus of attention of many educators and academics , as a study (Tara, 2016) indicated that hybrid blended education focuses on providing learning in an interactive, flexible and diverse way that helps to create appropriate learning environments for learners , and both the study of (Joana, 2011) and the study of (Zhou, 2012) agreed that hybrid education has shown its importance in meeting educational needs in universities where traditional classrooms are mixed with web-based education and training, synchronous education, or asynchronous online education in improving the quality of education and increasing expertise and experiences.

The field reality indicates that hybrid education has many advantages, including increasing the effectiveness of education, diversifying the means of knowledge, achieving active learning for learners, achieving interaction during education, strengthening human and social relations among learners, mastering practical skills, providing practice and training in education, and achieving satisfaction with education, increasing academic achievement.

In light of the above, the current study tries to answer the following question (What is the relationship between the psychological and social effects of the Corona pandemic and the attitudes of university students towards hybrid education?)

### **Second: Theoretical Directions of the Study:**

The study relied on measuring the relationship between the psychological and social effects of the Corona pandemic and students' attitudes towards hybrid education according to the theoretical framework of the theory of social role, where the theory of role arose and developed within the framework of Western sociology. Concern for the position of the individual and his influence in global politics and internal politics and the development of political patterns was the main motivation for contemporary political scientists to develop a theoretical

structure for the concept of role within the framework of political science.

Attempts to use role theory in contemporary political science were represented by two levels of analysis: the first level: in which political roles within the framework of political formats are examined separately from within, and the structure of roles, their distributions, and their interactions between subforms or structures that form the political form as a whole.

The second level: It examines the political roles within the international political system and focuses in particular on the roles occupied by influential individuals in global politics and does not require that they be heads of state.

#### **A. Definition of social role:**

define the role, there are real difficulties due to the limited research on the concept of the role in the dictionaries of the Arabic language, which tended to define it in the sense of the cycle of the thing.

**There are those who define the role by distinguishing it into elements, namely:** (Abdel Moneim Youssef, 2009, 61)

- **Role expectations:** These are the rules that regulate political actions, that is, actions that involve influence, decision-making, and the authoritarian distribution of values. These expectations refer to society's demands of individuals who occupy similar positions.
- **Role orientations:** These are the ideas of the individual occupying the role, such as the behavior that he must behave when he is in a certain situation. These ideas reflect the rules set by society, the testicles of the role-holder, and his awareness of the demands and expectations of those around him.
- **Role Behavior:** It is the actions taken by the individual who occupies a certain position, where the focus here is on the action as it happened, not as it should be.

#### **B. Concepts of social role theory:**

**The concept of role is also linked to a number of distinct but important concepts to understand its essence:** (Salwa Othman, Hana Fayeze, 2012, 127)

1. **The concept of the center:** Sometimes the center is confused with the role, and in fact, many centers have roles and vice versa, but centers are considered classifications of human beings, while roles are considered classifications of behavior.



2. **The concept of activity:** The role represents those behaviors that are characteristic of people in a particular context, while the activity is defined as that temporary but distinct interaction of a number of roles that are mutually dependent.
3. **The concept of social organization:** The organization includes a set of behavioral elements or roles that are interdependent.
4. **The concept of function:** It is a concept that often overlaps with the concept of role, but it does not match it because the non-functional role includes practice.

**C. The basic assumptions on which the role theory is based:**

The role theory is based on five basic assumptions, on which there is general agreement among the various social sciences, namely :  
 :(Muhammad Mustafa ,82,2019)

1. Some patterns of behavior are characteristic of the performance of individuals working within a particular framework.
2. Roles are often associated with a certain number of individuals who share a single identity.
3. Individuals are often aware of the role they play, and to a certain extent roles are controlled by the fact of perception.
4. Roles persist because of their consequences on the one hand and their connection to the context of broader social systems on the other.
5. Individuals must be prepared for the roles they play.

In the framework of the above on the theory of the social role, the psychological and social effects of the Corona crisis can be interpreted as a defect in the inability of the university student to carry out the roles assigned to it during his university studies, which is reflected in his role as a student within the university, which may affect his academic level.

**The importance of the study:**

- (1) This study contributes to identifying the negative effects of the coronavirus crisis and its impact on students.
- (2) The importance of the study stems from the seriousness of the current outbreak of the Corona virus and its psychological and social effects on the university student.
- (3) The importance of the study comes in dealing with the study of the relationship between two variables, one is a negative variable, which is the psychological and social effects, and the other is a positive variable, which is the attitudes of students towards hybrid education.

**Fourth: Objectives of the study:** The current study seeks to achieve the following objectives:

- 1- Determine the level of psychological effects facing the university student in light of the outbreak of the Corona pandemic.
- 2- Determine the level of social impacts facing the university student in light of the outbreak of the Corona pandemic.
- 3- Identify the relationship between the level of psychosocial impacts and students' attitudes towards hybrid education.

**Fifth: Study Hypotheses:** The study seeks to verify the validity of the following hypotheses:

- (1) **There is a statistically significant relationship between the psychological and social effects of the coronavirus pandemic and students' attitudes towards hybrid education. This hypothesis can be verified through the following sub-hypotheses:**
  - A. There is a statistically significant relationship between the psychological effects of the coronavirus pandemic and students' attitudes towards concurrent education.
  - B. There is a statistically significant relationship between the psychological effects of the coronavirus pandemic and students' attitudes towards asynchronous education.
  - C. There is a statistically significant relationship between the social effects of the coronavirus pandemic and students' attitudes towards concurrent education.
  - D. There is a statistically significant relationship between the social effects of the coronavirus pandemic and students' attitudes towards asynchronous education.
- (2) **There are statistically significant differences between students' attitudes towards hybrid education resulting from the psychological and social effects of the Coronavirus pandemic according to the college/gender variable.**

**- Concepts of the study:**

**(1) The concept of the Corona pandemic:**

Known as the coronavirus (COVID-19), it is an infectious disease caused by the newly discovered coronavirus. Most people who contract COVID-19 suffer from mild to moderate respiratory disorders and recover without the need for special treatment. The elderly and those with underlying medical problems such as cardiovascular diseases,

diabetes, chronic respiratory diseases and cancer are more susceptible to the disease .2020).

Coronavirus is defined as a virus that causes diseases of mammals and birds, and the virus causes respiratory infections in humans, which include colds and are usually mild, and rarely fatal, such as severe acute respiratory syndrome and Middle East respiratory syndrome, and may cause diarrhea in cows and pigs, while in chickens it may cause diseases of the upper respiratory tract. (Cohen-Serrins, J, 2020, 256)

## **(2) Hybrid education:**

Hybrid education is the type of education in which e-learning is integrated with traditional education and relies on virtual means of communication in order to widen the circle of communication between students and faculty members in order to reduce the effort and cost in the educational process and replace part of the time of the traditional educational process with a set of activities and training carried out by the student in a virtual way. Fawzi Wahidi et al. , 2020)

While hybrid education (Fu, 2006) was defined as the planned integration of face-to-face live interaction, synchronous or asynchronous cooperation, self-learning and tools to improve performance

Hybrid education is defined in (Farrington, 2014) as the combination of education within the classroom and e-learning by communicating the objectives, content, sources and activities of learning and methods of communicating information using modern technological tools and devices to improve knowledge, information and skills and increase trends. It is considered (Chang et al , 2015) the latest methods that contribute to the success of the educational process by acquiring knowledge from face-to-face learning and using e-learning platforms for assessments, self-learning and cooperative learning. It is based on the principle that the student bears responsibility for his learning through educational activities and learning methods different from traditional methods to suit this type of education.

## **Seventh: Methodological procedures of the study:**

**(A) Type of study:** This study belongs to the pattern of descriptive studies as one of the most appropriate studies for the subject of the study "Psychosocial effects of the Corona pandemic and its relationship to students' attitudes towards hybrid education."

**(B) Study Curriculum:** The study is based on the sample social survey curriculum for students of the Faculty of Social Work and students of the Faculty of Engineering at Helwan University.

**(C) Study tools:** The study used the questionnaire tool. The questionnaire aimed to determine "the psychological and social effects of the Corona pandemic and their relationship to students' attitudes towards hybrid education. The researcher confirmed the psychological characteristics of the tool by testing the stability of the questionnaire using a sample retest method of (20) individuals from students of the Faculty of Social Work and students of the Faculty of Engineering at Helwan University. The stability coefficient reached (Alpha).Cronbach) (0.763), and the statistical validity of the questionnaire reached (0.873). These levels are considered high and acceptable, and the results of the tools can be relied upon.

**(D) Fields of study:**

**1-Spatial domain.** The spatial field of study at the Faculty of Social Work and the Faculty of Engineering at Helwan University was determined and those institutions were selected for the following reasons:

- The Faculty of Social Service is one of the literary colleges and the Faculty of Engineering in Helwan is one of the scientific colleges.
- These colleges have a student density.
- Regularity of students in attendance because the study is related to those colleges on the practical side.

**2- Human Sphere:**

- A regular random sample of the students of the teams of the Division of Attendance in the aforementioned colleges, where the sampling framework for students reached (16160) individuals and by applying the optimal size equation using an equation of Stephen Thompson, the number of the sample reached (375) individuals.

**Table (1) shows the numbers of the study population**

Helwan College of Engineering		social work		Separatism	No.
Sample size	Inspection	Sample size	Inspection		
25	1050.00	-	-	Preparatory	1
22	59 945	45	1950.00	First	2
20	856	114	4904	Second	3
18	787	61	2631	Third	4
17	748	53	2289	Fourth	5
102	4386	273	11774	MJ	

**3-Time Domain:** The time domain of the study includes the period of collecting information from the study vocabulary during the period (1/6/2021) to (1/8/2021).

**(E) Statistical analysis methods:** The level of the psychological and social effects of the Corona pandemic and its relationship to students' attitudes towards hybrid education was judged using the arithmetic mean, where the beginning and end of the triple scale categories are yes (three degrees), to some extent (two degrees), no (one degree), and the data was coded and entered into the computer, and to determine the length of the triple scale cells (lower and upper limits) , the range = the largest value – the lowest value (  $3 - 1 = 2$  ), was divided by the number of cells of the scale to obtain the corrected cell length (  $2/3 = 0.67$  ) and then this value was added to the lowest value in the scale or the beginning of the scale, which is the correct one, in order to determine the upper limit of this cell.

**Table (2) shows the level of arithmetic means**

If the average value of the statement or dimension ranges between 1 - 1.67	Low Voltage Level
If the average value of the statement or dimension ranges between more than 1.67 - 2.34	Intermediate level
If the average value of the statement or dimension ranges between more than 2.34 : 3	VOL HI

The data was processed by the computer using SPSS software .V. 24.0) statistical packages for the social sciences, and the following statistical methods have been applied: frequencies and percentages, arithmetic mean, standard deviation, range, Pearson correlation coefficient R, determination coefficient  $R^2$ , and T-test for two independent samples.

### **Eighth: The results of the field study:**

**Table (3) shows the description of the study population 375**

No.	Type:	K	%
1	Male	148	39
2	Female	227	60.
No.	Tang	K	%
1	18-30 years	67	17
2	year.	136	36.3
3	11-20 years	89	23.7
4	21 years and above	83	22(1)
Medium		19.67	
Standard deviation		1.82	
No.	College	K	%
1	social work	273	72
2	Helwan College of Engineering	102	27.2
The study team		K	%
1	My numbers	25	6 (7).
2	First	67	17
3	Second	134	35.7
4	Third	79	21
5	Fourth	70.00	18.7
ratione domicilli		K	%
1	Rural	109	29.1
2	has attended the	266	70.00

### **The previous table shows the description of the study population:**

- As for gender, the percentage of males was (39.5%) while the percentage of females was (60.5%).
- For age, the average age of students was (19.67) years, with a standard deviation of (1.82).
- For the faculty, the percentage of students in the Faculty of Social Work was (72.8%), while the percentage of students in the Faculty of Engineering was (27.2%).
- For the first grade, the students of the third grade came in the first place with a percentage of (35.7%), while the last grade came in the middle school with a percentage of (6.7%).
- For the homeland, the percentage of rural students was (29.1%), while the percentage of urban students was (70.9%).

**Table (4) the relationship between the psychological effects of the coronavirus pandemic and students' attitudes towards simultaneous education. 375**

No.	Variables	Weighted Average	Standard deviation	Correlation coefficient
1	Psychological effects of the coronavirus pandemic	52.	0.359	399
2	Students' attitudes towards concurrent learning.	56.	0.347	

**\*\* Moral at (0.01)**

**\* Moral at (0.05)**

The **previous table shows:** There is a positive relationship between the psychological effects of the Coronavirus pandemic and students' attitudes towards simultaneous education, as the value of the correlation reached (0.399\* \*), which is statistically significant at a significant level (0.01).

**Table (5) The relationship between the psychological effects of the coronavirus pandemic and students' attitudes towards asynchronous education. 375**

No.	Variables	Weighted Average	Standard deviation	Correlation coefficient
1	Psychological effects of the coronavirus pandemic	52.	0.359	0.283**
2	Students' attitudes towards asynchronous education.	0.63	267	

**\*\* Moral at (0.01)**

**\* Moral at (0.05)**

The **previous table shows:** There is a positive relationship between the psychological effects of the coronavirus pandemic and students' attitudes towards asynchronous education, where the value of the correlation reached (0.283\* \*), which is statistically significant at a significant level (0.01).

**Table (6) the relationship between the social effects of the coronavirus pandemic and students' attitudes towards simultaneous education. 375**

No.	Variables	Weighted Average	Standard deviation	Correlation coefficient
1	Social effects of the coronavirus pandemic	51	0.386	569
2	Students' attitudes towards concurrent learning.	56.	0.347	

**\*\* Moral at (0.01)**

**\* Moral at (0.05)**

The **previous table shows:** There is a positive relationship between the social effects of the coronavirus pandemic and the trends of students towards simultaneous education, where the value of the correlation reached (0.569\* \*), which is statistically significant at a significant level (0.01).

**Table (7) the relationship between the social effects of the coronavirus pandemic and students' attitudes towards asynchronous education 375**

No.	Variables	Weighted Average	Standard deviation	Correlation coefficient
1	Social effects of the coronavirus pandemic	51	0.386	258
2	Students' attitudes towards asynchronous education.	0.63	267	

**\*\* Moral at (0.01)**

**\* Moral at (0.05)**

The **previous table shows:** There is a positive relationship between the social effects of the coronavirus pandemic and the trends of students towards asynchronous education, where the value of the correlation reached (0.258\* \*), which is statistically significant at a significant level (0.01).



**Table (8) the relationship between the psychological and social effects of the coronavirus pandemic as a whole and students' attitudes towards hybrid education 375**

No.	Variables	Weighted Average	Standard deviation	Correlation coefficient
1	Psychosocial effects of the coronavirus pandemic as a whole	52.	306	571
2	Students' attitudes towards hybrid education	2.59	0.256	

\* \* Moral at (0.01)

\* Moral at (0.05)

The **previous table shows:** There is a positive relationship between the psychological and social effects of the Corona virus pandemic as a whole and the attitudes of students towards hybrid education, as the value of the correlation reached (0.571\* \*), which is statistically significant at a significant level (0.01).

**Table (9) Results of the multiple regression analysis of the relationship between the psychological and social effects of the coronavirus pandemic and students' attitudes towards hybrid education 375**

Independent variables	Regression coefficient B	Test (V) ti		Test (F) F		Correlation coefficient UNTRANSLATED_CONTENT_START UNTRANSLATED_CONTENT_END	Coefficient of determination R <sup>2</sup> (%)
		A mo un t	M or al	A mo un t	Moral		
Psychological effects of the coronavirus pandemic	406	0.57	0.00	92	0.00	567	332
The Social Impacts of the Coronavirus Pandemic Hybrid Education	091	= 1.	078				

Independent variables	Regression coefficient B	Test (V) ti		Test (F) F		Correlation coefficient UNTRANSLATED_CONT ENT_STARTR UNTRANSLATED_CONT ENT_END	Coefficient of determination R <sup>2</sup> (%)
		Amount	Moral	Amount	Moral		
Psychosocial effects of the coronavirus pandemic as a whole	0.564	9	0.00				

The **previous table shows:** The value of the multiple correlation coefficient between the independent variable and its dimensions: the psychological and social effects of the coronavirus pandemic, where it reached (0.567), which indicates a direct correlation between the variables.

The result of the F test was (F=92.30), which is significant at (0.01), and therefore it indicates the significance of the multiple regression model, and the value of the coefficient of determination was (0.332), meaning that the psychological and social effects of the coronavirus pandemic explain (33.2%) of students' attitudes towards hybrid education.

The result of the (T) test shows the impact of each of the variables of the effects of the Corona virus pandemic as a whole on the dependent variable, which is the attitudes of students towards hybrid education, as follows: (psychological effects) are significant at (0.01) , and (social effects) are immaterial.

**\*Considering the results of tables No. (4) - (5) - (6) - (7) - (8) - (9), we accept the first hypothesis of the study: There is a statistically significant relationship between the psychological and social effects of the coronavirus pandemic and students' attitudes towards hybrid education**

**Table (10) shows the differences between students' attitudes towards hybrid education resulting from the psychological and social effects of the coronavirus pandemic according to the college variable 375**

No.	Student Trends	College	N	Weighted average	Standard deviation	liberty	F	t-value
1	Students' attitudes towards concurrent learning.	social work	273	2.59	328	373	7 (23)	3-41
		Engineering	102	2.46	0.379			
2	Students' attitudes towards asynchronous education.	social work	273	2 124 65	257	373	813	32.
		Engineering	102	2.55	0.281			
	Students' attitudes towards hybrid education.	social work	273	0.63	233	373	92	06
		Engineering	102	51	0.295			

**\*\* Moral at 0.01**

**\* Moral at 0.05**

It is clear from the previous table that there are significant differences between the students of the faculties of social service and engineering about their attitudes towards simultaneous education, as the value of the T test reached (3.41\* \*), which is significant at the level of (0.01). It was also found that there are significant differences between the students of the faculties of social service and engineering about their attitudes towards non-education, as the value of the T test reached (3.32\* \*), which is significant at the level of (0.01), and therefore there are significant differences between the students of the faculties of social service and engineering about their attitudes towards hybrid education, as the value of the T test reached (4.06\* \*), which is significant at the level of (0.01).

**Table (11) shows the differences between students' attitudes towards hybrid education resulting from the psychological and social effects of the coronavirus pandemic according to the gender variable 375**

No.	Student Trends	Type:	N	Weighted average	Standard deviation (Maths.)	liberty	F	t-value
1	Students' attitudes towards concurrent learning.	male	148	51	356	373	76	2
		Female	227	2.59	0.339			
2	Students' attitudes towards asynchronous education.	male	148	56.	263	373	0.013	77
		Female	227	2.67	0.26			
	Students' attitudes towards hybrid education.	male	148	54.	271	373	85	3.34
		Female	227	0.63	241			

**\*\* Moral at 0.01**

**\* Moral at 0.05**

It is **clear from the previous table** that there are significant differences between male and female students about their attitudes towards simultaneous education, as the value of the T test reached (2.029\* \*), which is significant at the level of (0.05). It was also found that there are significant differences between male and female students about their attitudes towards asynchronous education, as the value of the T test reached (3.77\* \*), which is significant at the level of (0.01), and therefore there are significant differences between male and female students about their attitudes towards hybrid education, as the value of the T test reached (3.34\* \*), which is significant at the level of (0.01).

\*Considering the results of Table No. (10) and Table No. (11), **we reject the second hypothesis of the study**: There are no differences between the psychological and social effects of the Corona virus

pandemic and the attitudes of students towards hybrid education according to the college and habitat variable.

**Ninth: The general results of the study:**

**(1) For the description of the study population: The results of the study proved that :**

- As for gender, the percentage of males was (39.5%) while the percentage of females was (60.5%).
- For age, the average age of students was (19.67) years, with a standard deviation of (1.82).
- For the faculty, the percentage of students in the Faculty of Social Work was (72.8%), while the percentage of students in the Faculty of Engineering was (27.2%).
- For the first grade, the students of the third grade came in the first place with a percentage of (35.7%), while the last grade came in the middle school with a percentage of (6.7%).
- For the homeland, the percentage of rural students was (29.1%), while the percentage of urban students was (70.9%).

**(2) As for the hypotheses of the study : The results of the study proved:**

- There is a positive relationship between the psychological effects of the coronavirus pandemic and the attitudes of students towards simultaneous education, as the value of the correlation reached (0.399\* \*), which is a statistical function at a significant level (0.01).
- There is a positive relationship between the psychological effects of the coronavirus pandemic and students' attitudes towards asynchronous education, where the value of the correlation reached (0.283\* \*), which is statistically significant at a significance level (0.01).
- There is a positive relationship between the social effects of the coronavirus pandemic and the trends of students towards simultaneous education, where the value of the correlation reached (0.569\* \*), which is statistically significant at a significant level (0.01).

- There is a positive relationship between the social effects of the coronavirus pandemic and the trends of students towards asynchronous education, where the value of the correlation reached (0.258\* \*), which is statistically significant at a significance level (0.01).
- There is a positive relationship between the psychological and social effects of the coronavirus pandemic as a whole and the attitudes of students towards hybrid education, as the value of the correlation reached (0.571\* \*), which is statistically significant at a significance level (0.01).
- The value of the multiple correlation coefficient between the independent variable and its dimensions: the psychological and social effects of the coronavirus pandemic reached (0.567), which indicates a direct correlation between the variables. The result of the F test reached (F=92.30), which is significant at (0.01), and therefore it indicates the significance of the multiple regression model. The value of the coefficient of determination reached (0.332), meaning that the psychological and social effects of the coronavirus pandemic explain (33.2%) of the students' attitudes towards hybrid education. The result of the (T) test shows the impact of each of the variables of the effects of the Corona virus pandemic as a whole on the dependent variable, which is the attitudes of students towards hybrid education, as follows: (psychological effects) are significant at (0.01) , and (social effects) are immaterial.
- There are significant differences between the students of the faculties of social service and engineering about their attitudes towards simultaneous education, where the value of the T test reached (3.41\* \*), which is significant at the level of (0.01). It was also found that there are significant differences between the students of the faculties of social service and engineering about their attitudes towards non-education, as the value of the T test reached (3.32\* \*), which is significant at the level of (0.01), and therefore there are significant

differences between the students of the faculties of social service and engineering about their attitudes towards hybrid education, as the value of the T test reached (4.06\* \*), which is significant at the level of (0.01).

- There are significant differences between male and female students about their attitudes towards simultaneous education, as the value of the T test reached (2.029\* \*), which is significant at the level of (0.05). It was also found that there are significant differences between male and female students about their attitudes towards asynchronous education, as the value of the T test reached (3.77\* \*), which is significant at the level of (0.01), and therefore there are significant differences between male and female students about their attitudes towards hybrid education, as the value of the T test reached (3.34\* \*), which is significant at the level of (0.01).

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