The Challenges Facing Higher Education in Light of Corona Virus (COVID-19) and Its Impact on Student's Academic Achievement : Empirical Study on Jordanian and Syrian Private Universities

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Abstract:

This study aims to identify the challenges facing the higher education system considering the Corona pandemic and its impact on the achievement of students in Jordanian and Syrian private universities.The study covers several independent variables: Curriculum challenges, challenges facing faculty members, challenges related to the infrastructure of universities, challenges related to pandemic response procedures, challenges in the ability to reduce Educational Wastage, and challenges related to health infrastructure.The data of the study are collected through a questionnaire designed for the purposes of the study, and data are collected from a sample of faculty members at Philadelphia University and Ebla University. The first part of the questionnaire consists of information about faculty members, and the second part of the questionnaire includes (47) Items or questions that represent the challenges. The questionnaire is distributed electronically via e-mail to faculty members in both universities, and the number of valid questionnaires for analysis is (65), representing the sample size. The study uses the statistical program "SPSS" where the data are processed and analyzed. The results of the study show that the sample members feel strongly about all challenges that faced them and the highest mean value is (4.4495), which is an indicator that the students' academic achievement is affected by the challenges faced by the faculty members. Although all the variables have high mean value, we found that the lowest mean is (3.9540) for the challenges related to health infrastructure. The study recommends to pay attention and follow-up on students and faculty members in universities to confront the Corona pandemic.

Keywords: Impact of COVID-19, Students' Learning, Higher Education, Challenge.

Introduction:

The Corona pandemic began in China in 2019 and then spread to other countries [1]. This pandemic began to spread in Jordan, since March 2020 [2], as well as in Syria where cases began increasing in early August, reaching around 1,000 cases per day by the end of the month. [3], Strict and multiple preventive instructions and rules were put in place to control the spread of the pandemic, such as limiting the movement of cars, closing down schools and universities, as well as opening specialized hospitals to receive cases which were used to detect Epidemiological information about COVID-19 and conducting researches to keep the public informed about the vital pandemic. Transparency has a great impact on raising awareness of citizens on COVID-19 and allows them to feel reassured about what is going on around them, especially considering the fact that it is the first pandemic many of them live through [4]. The Coronavirus pandemic caused a complete or partial suspension of studies in universities, and thus many students at the local and international levels stopped going to universities [5], as one of the results of this pandemic is a great educational

loss, and impedes the work of an integrated educational system as it leads to waste time, effort, and money spent on the educational process without being able to reach the desired results, in addition to wasting a lot of material and human resources, and these losses will have lasting economic effects on the students, universities, and countries unless they are effectively treated [6].The idea of this research emerged from answering the following question: Has the Coronavirus pandemic affected the academic achievement of students? This virus has canceled the idea of learning in the classroom and has turned to the use of compulsory technology and different patterns of distance education to be an alternative to the traditional one [7]. The total or partial suspension of classroom suddenly led to educational loss, depending on the situations related to the suspension of work in universities for different periods, and it may be difficult to compensate for this loss through classroom education because of the continuation of this pandemic and its development from one period to another[8] . To reduce educational losses, most countries have invested their electronic educational resources and launched a distinctive educational system for universities through distance learning strategies, where this strategy was suitable for many, and it started with the distance learning system [9]. There are a number of tools that can be used electronically to prepare study plans, videos, and many other programs that are accessible to teachers and students [10]. In spite of this, there are many improvements, initiatives, and investments that the educational systems may adapt and got a positive long-term impact, such as increasing the digital skills of teachers and increasing the participation of parents [11]. In Syria and Jordan, a number of steps were taken to reduce educational losses, so it is necessary to prepare a short and long-term plan with integrated elements, clear terms and easy application and implementation to compensate for the educational loss resulting from the suspension of the educational process [12]. Knowledge cannot be compensated within a short period of time unless there is a solid plan and the necessity of investing in infrastructure and providing all forms of support to private and public universities [13]. And among the measures that have been taken is the training of many teachers on the use of technology in education, and despite this, we find that there are a number of teachers who are unable to use this technology and they have many inquiries and questions about how to deal with technology in teaching [14]. The application of technology in education is one of the challenges that universities face for the success of the educational process [15]. Providing computers and Internet speed, and providing computer packages is a challenge in itself [16]. The students or teachers may have a computer, but they do not have Internet service, or the service is ineffective to cover the requirements of some subjects, such as watching a video [17]. And there are many universities that do not have sufficient resources and infrastructure for e-learning [18]. Therefore, this matter constituted a challenge for the private universities in Syria and Jordan, which could not easily overcome it [19,] Many faculty members resort to the so-called "Instructional Design", So that they can design a teaching material to meet the educational needs of students defining the objectives of the teaching courses, and the appropriate means to achieve them, also the tools for measuring the extent of learning and feedback. In Syria and Jordan, universities have taken many procedures, the most important one is stop the teaching process in addition to health procedures, which impacted the educational process and increased educational losses in universities and schools [19], especially since universities, were not prepared for such a pandemic, and also conducting exams in light of the pandemic is difficult and cannot measure educational outcome[20] . The study identifying the challenges facing the university education system in light of the Corona pandemic and impact on student's achievement and the difficulties facing faculty members in universities regarding the use of E-learning[21] . The problem of the study stems from knowing the challenges facing the university educational system in light of the Corona pandemic on Syrian and Jordanian private universities and to study their impact on students' achievement.

Theoretical Framework and Previous Studies.

There are a number of researches that have been exposed to the extent of the impact of Corona on the scientific performance of students, and a study has shown that there are difficulties that students faced from a psychological point of view, as well as teachers, during the period of closing universities, as the study indicated that 60.4% of university students suffer behavioral changes, and that 57.4% of the teachers suffered from social and psychological problems [22]. There are also a number of studies showing that e-learning is not at the level of face-to-face education [22], [23], [24]. The study showed that there are factors affecting e-learning in the presence of corona. In terms of the lack of appropriate infrastructure and unequal

educational opportunities, especially in poor countries, due to the lack of developed networks that help in e-learning [25]. The results of this study are consistent with the current study. Some studies have shown that students with special needs encounter difficulties in e-learning and need assistance to be able to use the tools they need, such as technical tools and musical instruments [26]. The study aimed to know the impact of a number of factors in light of the spread of the Corona virus pandemic in Jordan, and to show the role of mass media. The results showed that 91% of the epidemiological information variable and the preventive information variable in virus transmission were large. McKinsey Foundation distributed a questionnaire to a number of university presidents, and it was found that the faculty members had fears and concerns about the inability to deliver information sufficiently required for students, as is the case in classrooms. In addition to the material cost that they must bear [27]. The results of this study consistent with the current study.

The study presents the challenge of dealing with technology and distance learning, which was greater for students with low and limited income, while things were less complicated for students with high incomes. These challenges were represented in the access to the internet and the availability of computers and smart devices used in distance learning [28].

The study found that, the interaction and support of students and teachers is still limited to e-learning, rather it is an opportunity to develop into another type called blended or mixed education, which can be resorted to in a stage of low risk or as some call it a stage of recovery [29].

The study examined the extent to which a number of Jordanian university students were affected by modern technology. A questionnaire was distributed to 4037 students. The study concluded that psychological and economic factors affected the students' desire for e-learning [30]. A study conducted in the Kingdom of Morocco during Corona aimed to know the extent of the impact of education platforms on the performance of students and teachers, and the study concluded that the teachers expressed their desire for 50% of the study to be in the traditional style [31]. The research show that the spread of the Corona virus affected education in the whole world and in order to be able to control the spread of this virus, universities, institutes, and schools were closed, and this closure resulted that the teachers and students facing great difficulty in education, in addition to the difficulties faced by parents. Distance education is considered a solution to continue studying despite the low level of internet infrastructure, especially in developing countries which they seek to build a strategy for the use of educational technology and educational resources that are provided free of charge [32]. The aim of the study is to know how students evaluate e-learning during the Corona crisis period, and the study concluded that the students had a positive evaluation and that they use mobile phones as a means of communication [33]. The study presents the challenges faced by Syrian refugees' students in Jordanian universities. The study revealed the impact of some independent variables on these challenges and difficulties. It recommended the implementation of educational and psychological programs and economic support programs to help students in the costs of e-learning [34]. The aim of the research is to study the reality of E-learning in Syrian universities during the Corona crisis, by evaluating the effectiveness of E-learning, and the availability of its requirements in Syrian universities. The research shows the lack of controls regulating the educational process to achieve its goals, and the lack of carefully studied strategies for applying learning in Syrian universities. It recommended the necessity of creating a directorate in the Ministry of Higher Education in Syria [35]. The results of this study consistent with the current study.

Methodology:

Research Design:

In order to evaluate the correlations among the variables, the researchers adopted a quantitative research approach. As a consequence, conclusions may be generalized, and the study can be replicated if recognized criteria are used.

Procedures

In this study, the target population consists of faculty members at Ebla Private University in Syria, and Philadelphia University in Jordan, as a research sample. The experiences of the faculty members ranged from one year to more than 15 years, and their ranks were divided into four ranks (teacher, associate professor, assistant professor, professor) at both universities. The study was conducted in the second semester of the academic year 2022/2021. Data was collected using an online survey. The study targeted all of the faculty members. The researchers tried to reach all members in both universities. Of the 85 who received the questionnaire via e-mail, 65 returned their questionnaire and were therefore used in this

study. The response rate was 76%. And the questionnaire consisted of two parts, the first part of the questionnaire consisted of information about faculty members, while the second part of the questionnaire included 47 items representing the challenges facing higher education.

The questionnaire was distributed via e-mail to the faculty members of the two universities. The questionnaire was characterized by good wording and confidentiality, and the presence of instructions for the faculty members on how to answer the paragraphs of the questionnaire.

Independent Variable:

Curriculum challenges, challenges facing faculty members, challenges related to the infrastructure of universities, challenges related to pandemic response procedures, challenges in the ability to reduce scientific loss, and challenges related to health infrastructure. These dimensions of the independent variables are evaluated by items in the 5-point Likert Scale in the questionnaire.

Dependent Variable:

The dependent variable is the achievement of students consisting of several items in the questionnaire defining the principles and procedures of examining and evaluating students in addition to their scholastic achievement. The search framework can also be divided, which are as follows (Figure 1):

Figure 1. Conceptual model
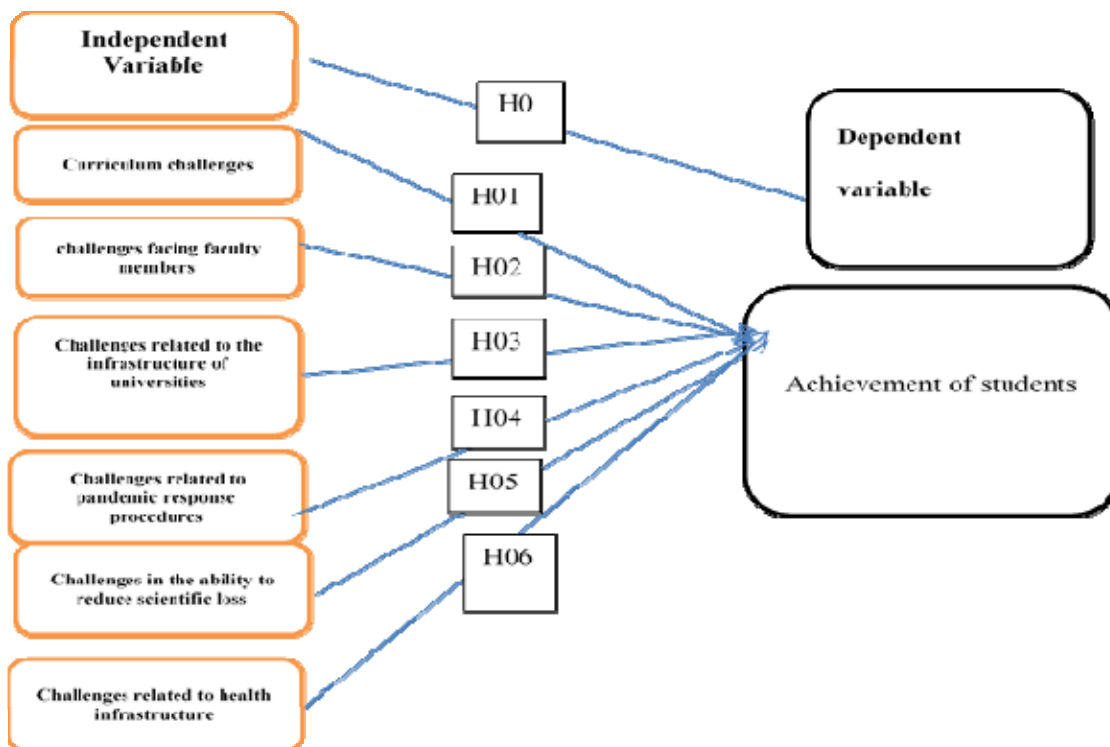
Presentation of results

The questionnaire consisted of two parts, the first contained information about gender, rank, college, and years of experience. The second part included (47) paragraphs that represented the challenges faced by the higher education system on the student's academic achievement due to the Coronavirus (COVID-19) pandemic using the 5-point Likert Scale.

The questionnaire which designed by the researchers was distributed by e-mail after verifying the validity and reliability of it.

Reliability of scale was verified by using Cronbach's alpha coefficient and it was (0.852) which is more than (0.7).

The results of the study showed that the sample members feel strongly about all challenges faced them and the highest mean value is 4.4495, which is an indicator that the students' academic achievement is affected by the challenges faced by the faculty members. Although all the variables have high mean value, we found that the lowest mean is (3.9540) for the challenges related to health infrastructure.

Respondents

The study population consisted of all faculty members in Jordanian and Syrian private universities, and a random sample of faculty members at Philadelphia University in Jordan and Ebla University in Syria was conducted

Table 1. Mean and Standard Deviation for all Variables

Variables	Means	Standard Deviation	Importance	Level
Curriculum challenges	4.3796	.44907	4	High
challenges facing faculty members	4.4495	.46557	1	High
challenges related to the infrastructure of universities	4.3848	.53399	3	High
challenges related to pandemic response procedures	4.4245	.55380	2	High
challenges in the ability to reduce scientific loss	4.2190	.64838	5	High
challenges related to health infrastructure	3.9540	.88720	7	High
DEP	3.9683	.81489	6	High

It is evident from Table 1 that all the independent variables enjoy a high level of means and the challenges facing the faculty members have the highest mean average of (4.4495), and this indicates that the challenges related to faculty members are an indicator for measuring the academic achievement of students. Also, it was found that the lowest mean average of (3.9540) for the independent variable which is challenges related to health infrastructure.

Demographic Variables:

Statistics showed that (66.2) per cent of the sample size is males, (33.8) per cent from the College of Administrative sciences, (30.8) per cent at the rank of assistant professor, 38.5 per cent of the faculty members have experience between (10) and (15) years, and (78.5) per cent of the sample members are from Philadelphia University. Table 2.

Table 2. Respondents' demographics

Demographic Variables		Frequency	Percentage
UNIVERSITY	Philadelphia University	51	78.5
	Ebla University	14	21.5
	Total	65	100.0
GENDER	Male	43	66.2
	Female	22	33.8
	Total	65	100.0
RANK	Teacher	9	13.8
	Associate professor	26	40.0
	Assistant professor	20	30.8
	Professor	10	15.4
	Total	65	100.0
COLLEGE	Administrative sciences	22	33.8
	Literature	5	7.7
	Law	3	4.6
	Engineering	16	24.6
	Pharmacy	12	18.5
	Engineering and Technology	7	10.8
	Total	65	100.0
EXPERIENCE	Less than 5 years	9	13.8
	From 5 to 10 years	18	27.7
	From 10 to 15 years	25	38.5
	More than 15 years	13	20.0
	Total	65	100.0

The Hypotheses

H0: there is no statistically significant effect of the challenges faced by the higher education system on the student's academic achievement due to the Coronavirus (COVID-19) pandemic.

- **H01**: There is no statistically significant effect at ($\alpha \leq 0.05$) of curriculum challenges on the student's academic achievement due to Coronavirus (COVID-19) pandemic.

- **H02:** There is no statistically significant effect at ($\alpha \leq 0.05$) of challenges facing faculty members, on the student's academic achievement due to Coronavirus (COVID-19) pandemic.

- **H03**: There is no statistically significant effect at ($\alpha \leq 0.05$) of challenges related to the infrastructure of universities on the student's academic achievement due to Coronavirus (COVID-19) pandemic.

- **H04**: There is no statistically significant effect at ($\alpha \leq 0.05$) of challenges related to pandemic response procedures, on the student's academic achievement due to Coronavirus (COVID-19) pandemic.
- **H05:** There is no statistically significant effect at ($\alpha \leq 0.05$) of challenges in the ability to reduce scientific loss on the student's academic achievement due to Coronavirus (COVID-19) pandemic.
- **H06**: There is no statistically significant effect at ($\alpha \leq 0.05$) of challenges related to health infrastructure on the student's academic achievement due to Coronavirus (COVID-19) pandemic.

Testing the main hypothesis

H0: there is no statistically significant effect of the challenges faced by the higher education system on the student's academic achievement due to the Coronavirus (COVID-19) pandemic.

Table 3. Relationship between the Variables

Model	R	R Square	Durbin-Watson
1	.512	.262	.696

It is clear from Table 3 that the relationship between the variables (dependent and independent) is strong.

Correlation coefficient (R = .512) and coefficient of determination (R^2 = .262) meaning that the dimensions of the independent variable explain (26.2) per cent of the variance of the dependent variable while the remaining percentage is explained by other factors not included in our study. Durbin-Watson measure is (0.696) which is less than (2.0) indicating that sample size is adequate.

The results of multiple regressions are given in Table 4.

Table 4. Multiple Regressions

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistic	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	3.280	.845		3.883	000		
first	.301	.198	.166	1.520	132	.630	1.587
second	-.183	.211	-.105	-.865	389	.516	1.939
third	-.025	.177	-.016	-.141	888	.559	1.790
forth	-.318	.187	-.216	-1.703	092	.467	2.141
fifth	-.014	.136	-.011	-.103	918	.643	1.554
six	.445	.085	.484	5.208	000	.871	1.149

(F = 5.806, p = 0.000)

From Table 4 it is clear that (F = 5.806, p = 0.000), indicating that the challenges faced by the higher education system have significant impact on the student's academic achievement and that the values of VIF for the dimensions of the independent variable are less than 5, and this means that these dimensions are not strongly correlated with each other, and they all can be included in the analysis. Also, the values of Tolerance are more than 0.20, and therefor are within the accepted limits.

It is also clear that all dimension has statistically significant effect on the dependent variable with sig. value of 0.000, and with t-value of 5.208 and it has the highest βeta=0.484.

But the other dimensions do not have statistically significant effects since the Sig is > 0.05 for each.

Furthermore, the findings of data analysis have shown that challenges related to the actions required to confront the pandemic (β = -.216, t = -1.703, p = 0.092) giving the largest negative impact and high standardized beta coefficient, indicating that challenges related to the actions required to confront the pandemic has a negative effect (although non-significant) on the student's academic achievement due to the Coronavirus (COVID-19) pandemic.

Data analysis have shown that, challenges facing faculty members has no significant predictor (β = .166, t = 1.520, p =.132) which means that although challenges facing faculty members has negative impact, they are not statistically significant at 0.05level.

Testing Sub Hypothesis

- **H01**: There is no statistically significant effect at ($\alpha \leq 0.05$) of curriculum challenges on the student's academic achievement due to Coronavirus (COVID-19) pandemic.

To test this hypothesis, simple regression was performed, and the result is given in Table5.

Table 5. Results of Simple Regression for the First Sub- Hypothesis

Dependent Variable	R	R2	Independent Variable	F	SIG
Dep	.060	.004	Curriculum Challenges	.366	**.546**

Table 6 Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.495	.786		4.448	.000
	first	.108	.178	.060	.605	.546

It is clear from Table 5 and Table 6 that there is no statistically significant effect of the independent variable on the dependent variable because the value of F= (.366) which is less than the tabulated value, and sig is more than .05 then there is effect, but it is not statistically significant. The same conclusion is reached since t=.605 which is less than the tabulated value (2. 01).

Moreover, the tables also show that there is a correlation between the independent variable and the dependent variable which is indicated by the value of R (R =.060). In addition, the coefficient of determination (R2 = 0.004) indicates that the independent variable explains 0.4% of the variation of the dependent variable and the remaining percentage is due to other factors.

Testing Sub hypothesis 2

- **H02**: There is no statistically significant effect at ($\alpha \leq 0.05$) of challenges facing faculty members, on the student's academic achievement due to Coronavirus (COVID-19) pandemic.

To test this hypothesis, simple regression was performed, and the result is given in Table 7.

Table 7. Results of Simple Regression for the second Sub- Hypothesis

Dependent Variable	R	R2	Independent Variable	F	SIG
Dep	.062	.004	challenges facing faculty members	.399	**.529**

Table 8. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.452	.770		5.782	.000
	SECOND	-.109	.172	-.062	-.632	.529

It is clear from Table 7 and Table 8 that there is no statistically significant effect of the independent variable on the dependent variable because the value of F= (.399) which is less than the tabulated value, and sig is more than .05 then there is effect, but it is not statistically significant. The same conclusion is reached since t= -.632 which is less than the tabulated value (2. 01).

Moreover, the tables also show that there is a correlation between the independent variable and the dependent variable which is indicated by the value of R (R =.062). In addition, the coefficient of determination (R2 = 0.004) indicates that the independent variable explains 0.4% of the variation of the dependent variable and the remaining percentage is due to other factors

Testing Sub hypothesis 3

- **H03**: There is no statistically significant effect at ($\alpha \leq 0.05$) of challenges related to the infrastructure of universities on the student's academic achievement due to Coronavirus (COVID-19) pandemic.

To test this hypothesis, simple regression was performed, and the result is given in Table 9.

Table 9. Results of Simple Regression for the third Sub- Hypothesis

Dependent Variable	R	R2	Independent Variable	F	SIG
Dep	.006	. 000	challenges related to the infrastructure of universities	.003	.956

Table 10. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.931	.664		5.920	.000
	third	.008	.150	.006	.056	.956

a. Dependent Variable: dep

It is clear from Table 9 and Table 10 that there is no statistically significant effect of the independent variable on the dependent variable because the value of F= (.003) which is less than the tabulated value, since sig is more than .05 then there is effect, but it is not statistically significant. The same conclusion is reached since t=.056 which is less than the tabulated value (2. 01).

Moreover, the tables also shows that there is a correlation between the independent variable and the dependent variable which is indicated by the value of R (R =.006a). In addition, the coefficient of determination (R2 = 0.000) indicates that the independent variable explains 0.5% of the variation of the dependent variable and the remaining percentage is due to other factors

Testing Sub Hypothesis 4

- **H04**: There is no statistically significant effect at ($α ≤ 0.05$) of challenges related to pandemic response procedures, on the student's academic achievement due to Coronavirus (COVID-19) pandemic.

To test this hypothesis, simple regression was performed, and the result is given Table 11.

Table. 11 Results of Simple Regression for the forth Sub- Hypothesis

Dependent Variable	R	R2	Independent Variable	F	SIG
Dep	.141	.020	challenges related to the infrastructure of universities	2.084	.152

Table 12. Coefficients

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.885	.640		7.633	.000
	forth	-.207	.144	-.141	-1.443	.152
a. Dependent Variable: dep						

It is clear from Table 11 and Table 12 that there is no statistically significant effect of the independent variable on the dependent variable because the value of F= (2.084) which is less than the tabulated value, since sig is more than .05 then there is effect, but it is not statistically significant. The same conclusion is reached since t=-1.443 which is less than the tabulated value (2. 01).

Moreover, the tables also show that there is a correlation between the independent variable and the dependent variable which is indicated by the value of R (R =.141). In addition, the coefficient of determination (R2 = 0.02) indicates that the independent variable explains 0.2% of the variation of the dependent variable and the remaining percentage is due to other factors

Testing Sub hypothesis 5

- **H05**: There is no statistically significant effect at ($α ≤ 0.05$) of challenges in the ability to reduce scientific loss on the student's academic achievement due to Coronavirus (COVID-19) pandemic.

To test this hypothesis, simple regression was performed, and the result is given in Table13

Table.13 Results of Simple Regression for the fifth Sub- Hypothesis

Dependent Variable	R	R2	Independent Variable	F	SIG
Dep	.007	.000	challenges related to the infrastructure of universities	.005	.946

Table 14. Coefficient

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	4.004	.529		7.576	.000
	fifth	-.008	.124	-.007	-.068	.946

a. Dependent Variable: dep

It is clear from Table 13 and Table 14 that there is no statistically significant effect of the independent variable on the dependent variable because the value of F= (.005) which is less than the tabulated value, since sig is more than .05 then there is effect but it is not statistically significant. The same conclusion is reached since t=-.068 which is less than the tabulated value (2. 01).

Moreover, the tables also show that there is a correlation between the independent variable and the dependent variable which is indicated by the value of R (R =.007). In addition, the coefficient of determination (R2 = 0.000) indicates that the independent variable explains 0.0% of the variation of the dependent variable and the remaining percentage is due to other factors

Testing Sub Hypothesis 6

- **H06**: There is no statistically significant effect at (α ≤ 0.05) of challenges related to health infrastructure on the student's academic achievement due to Coronavirus (COVID-19) pandemic.

To test this hypothesis, simple regression was performed and the result is given in Table15 .

Table 15. Results of Simple Regression for the six Sub- Hypothesis

Dependent Variable	R	R2	Independent Variable	F	SIG
Dep	.445	.198	challenges related to the infrastructure of universities	25.404	.000

Table 16. Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.353	.328		7.165	.000
	six	.409	.081	.445	5.040	.000

a. Dependent Variable: dep

It is clear from Table 15 and Table 16 that there is a statistically significant effect of the independent variable on the dependent variable because the value of F= (25.404) which is > the tabulated value, and sig is less than .05. The same conclusion is reached since t=5.040 which is more than the tabulated value (2. 01).

Moreover, the tables also show that there is a correlation between the independent variable and the dependent variable which is indicated by the value of R (R =.445a). In addition, the coefficient of determination (R2 = .198) indicates that the independent variable explains 19.8% of the variation of the dependent variable and the remaining percentage is due to other factors not studied in our model.

Discussion of Results

The results of the study showed that the respondents feel strongly about all the variables and the highest mean value is 4.4495 which deal with the challenges faced by the faculty members, which is the most important indicator that the students' academic achievement is affected by the challenges faced by the faculty members. Although all the variables have high mean value, we found that the lowest mean is 3.9540 for the independent variable, which are the challenges related to health infrastructure.

The results indicated that the challenges faced by higher education have a significant impact on student achievement this means that the results also indicated that there is a statistically significant effect of all independent variables taking together on the dependent variable. The challenges related

to health infrastructure has statistically significant effects on student achievement.

And challenges related to epidemic response procedures have a negative impact (although not statistically significant) on student academic achievement due to the Corona Virus (COVID-19) pandemic.

Data Analysis

Data were exported and analyzed using SPSS version 21.0 (IBM Corporation). Descriptive statistics were presented as counts and percentages to summarize the collected data. To measure the effect of the challenges facing the higher education on student's academic achievement in light of coronavirus (COVID-19), the means, standard deviations, one-way analysis of variance, and regression analysis were found.

Recommendations

- To overcome challenges, we should keep pace with recent developments in university teaching and developing the performance of faculty members in universities.
- We should hold workshops, seminars, and conferences for faculty members; to reach the required level.
- We should increase the effectiveness of university e-learning.
- The Ministry of higher education should know the challenges facing university students and work to overcome these challenges and improve the educational process.

Conclusion:

It was found from data analysis that the regulations approved regarding higher education in light of the Coronavirus pandemic had a prominent role in managing and controlling the spread of this epidemic in student's achievement.

The results proved that the transparency that the universities have followed since the beginning of the COVID-19 played a major role in overcoming the challenges faced the student's achievement. The results of the study showed that the respondents feel strongly about all the variables and that the challenges faced by the faculty members have the highest mean value of 4.4495 and we found that the lowest mean is 3.9540 for the independent variable, which are the challenges related to health infrastructure.

The results indicated that the challenges faced by the universities have a significant impact on student achievement, also the results indicated that there is a statistically significant effect of all independent variables taking together on the dependent variable.

One of the conclusions reached by the study is that there is a fear of students 'parents about the effectiveness of students 'academic achievement so officials and decision makers in higher education institutions should take into account a good mechanism to ensure the academic achievement of students in emergency cases.

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التحديات التي تواجه التعليم العالي في ظل فايروس كورونا (كوفيد-19) وأثره على التحصيل الأكاديمي للطلاب (دراسة تطبيقية على الجامعات الخاصة الأردنية والسورية)

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الملخص:

تهدف الدراسة إلى التعرف على التحديات التي تواجه نظام التعليم العالي في ظل جائحة كورونا وأثرها على تحصيل الطلبة في الجامعات الخاصة الأردنية والسورية. وتغطي الدراسة عدة متغيرات مستقلة، أهمها: تحديات المناهج الدراسية، والتحديات التي تواجه أعضاء هيئة التدريس، والتحديات المتعلقة بالبنية التحتية للجامعات، والتحديات المتعلقة بإجراءات الاستجابة للجائحة، والتحديات في القدرة على تقليل الفاقد العلمي، والتحديات المتعلقة بالبنية التحتية الصحية.

جُمعت بيانات الدراسة من خلال استبانة صُمِّمَت لأغراض الدراسة، وجُمِعت بيانات العينة من أعضاء هيئة التدريس في جامعة فيلادلفيا، وجامعة إيبلا. تضمن الجزء الأول من الاستبيان معلومات عن أعضاء هيئة التدريس، أما الجزء الثاني فتضمن سبعا وأربعين فقرة تمثل التحديات الآنفة الذِّكر، وقد وُزِّع الاستبيان إلكترونياً عبر البريد الإلكتروني على أعضاء هيئة التدريس في كلا الجامعتين، وبلغ عدد الاستبيانات الصالحة للتحليل خمسا وستين استبانة تمثل حجم العينة. واستخدمت الدراسة البرنامج الإحصائي"SPSS"، في معالجة البيانات وتحليلها. وأظهرت نتائج الدراسة أن أفراد العينة يشعرون بقوة تجاه كافة التحديات التي تواجههم، وأن أعلى قيمة متوسطة هي 4.4495، وهو مؤشر على أن التحصيل الأكاديمي للطلاب يتأثر بالتحديات التي يواجهها أعضاء هيئة التدريس، وعلى الرغم من أن جميع المتغيرات ذات قيمة متوسطة عالية، إلا أن الدراسة وجدت أن أدنى متوسط هو 3.9540 للتحديات المتعلقة بالبنية التحتية الصحية. أوصت الدراسة بالاهتمام والمتابعة للطلاب، وأعضاء هيئة التدريس في الجامعات؛ لمواجهة جائحة كورونا.

الكلمات المفتاحية: تأثير كوفيد 19، تعلم الطلاب، التعليم العالي، التحدي.