

DISTANCE-LEARNING ENTREPRENEURSHIP EDUCATION IN THE TIME OF CORONA VIRUS - COVID-19 CHALLENGES & SOLUTION

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ABSTRACT

This study aimed at identifying the most important challenges that female teachers working in Saudi public schools of the Eastern Region face while using distance-learning during the time of Corona, and then suggesting the appropriate solutions for these challenges from their own perspective. The descriptive approach was used, and a questionnaire of 43 items was distributed, covering 3 areas: the challenges of distance-learning in (1) teaching & learning, (2) infrastructure & the skills of using platforms, and (3) possible solutions for facing these challenges. Then, means and standard deviations were calculated to identify the participants' responses, with a total of 375 teachers. Independent-Samples T test was conducted for the differences' significance between 2 independent groups, as well as Kruskal-Wallis test to identify the differences' significance between more than 2 independent groups. The results of the study showed that all the items related to the challenges teachers face during distance-learning in the time of Corona (in the teaching & learning area) got a mean of (2.66) with a medium difficulty degree. Also, all the items got a mean of (2.77) in the (infrastructure & the skills of using platforms area) with a medium difficulty degree, from the teachers' perspective each. There were statistically significant differences for the challenges related to infrastructure and the skills of using platforms, from the teachers' perspective, for the favor of having less experience (less than 5 years). All the suggested solutions have generally been of medium importance, making them worthy of application.

Keywords: Education in Exceptional Circumstances, Madrasati Platform, Saudi Public Education, Teaching and Learning, Entrepreneurship.

INTRODUCTION

In the time of Corona virus (COVID-19), many Arab countries found that distance-learning is the solution, as part of the efforts exerted to prevent infection and as a precautionary measure to save the participants of the teaching-learning process, students and teachers. Although educational institutions have used distance-learning in their traditional pre-corona systems, the shift this time to distance-learning is different because it was done suddenly and with an obligatory implementation. It is a phenomenon that is being discussed globally (Al-Lily et al., 2020). This pandemic has brought about many changes in different life aspects, the most important of which is that countries were busy during Corona in applying this type of learning, and they believe it is difficult to go back to traditional learning even after the pandemic ends (Khanfar, 2020).

Due to the rapid spread of COVID-19, the educational institutions faced the problem of either postponing classes for an unknown period, or relying on emergency measures by

introducing the classes via the internet, and being adapted to the new situation which is distance-learning (Nae, 2020), that made all educational institutions use technology and distance-teaching, and then use educational platforms and their various tools in introducing and explaining classes as well as assessing student. This situation raised many questions about the effectiveness of the transition to distance-learning (Al-Hattami, 2020), in addition to the variation in the perspectives of both teachers and parents towards the transition from face-to-face teaching to distance-teaching. This difference explains the reasons why some students want to have distance-learning and others do not (Bowers-Abbott, 2020).

Both teachers and learners have also faced some problems and challenges during distance-learning, which may sometimes refer to technical reasons, or reasons related to teacher training and competence in using this technique and its tools in teaching, or they may refer to the lack of potentials and available equipment, in addition to reasons related to the nature of distance-learning which doesn't take into consideration the individual differences among learners (Al-Saalmi, 2019, Al-Yousef, 2017).

Kind to the above, educational institutions in the Arab world in general and in Saudi Arabia in particular, have had to prioritize the improvement of the distance-learning system, as well as addressing the challenges this system may face and overcoming them for both teachers and students. The use of technology and its tools in education has become a prominent feature of the modern era, requiring the build-up of new policies that are capable of transforming the traditional pattern of education into a competitive, analytical and scientific methodology that overcomes all challenges and guarantees preparing students for coexistence and ongoing giving (Dinder, 2008). Hence, this study came to investigate the topic of distance-learning in the Eastern Region of Saudi Arabia in the time of Corona (COVID- 19), as well as discussing the most important challenges it faces from the female teachers' perspective, and then suggesting the possible solutions for these challenges and the relevant problems.

The Study Problem

During the time of Corona pandemic, and with educational institutions in the world in general and in Saudi Arabia in particular adopting distance-teaching via virtual platforms, it has become useful to highlight the distance-learning experience in the Saudi Education context. Therefore, the ministry of education has announced during the first seven weeks of the 1st semester the introduction of the interactive, educational distance-learning platform (Madrasati, 2020) for public schools' students (MoE, 2020). Although there are many teachers all over the world who do their best to integrate technology in their instruction and use its various tools for the purpose of developing and improving students' achievement, (Al-Hattami, 2020), there are still many people who question the feasibility of using technology in distance learning and teaching. The study problem focused on answering the following questions:

1. What are the challenges female teachers working in Jubail public schools face during distance-learning in the area of teaching & learning during Corona time from their point of view?
2. What are the challenges female teachers working in Jubail public schools face during distance-learning in the area of infrastructure & the skills of using the platforms during Corona time from their point of view?
3. Do teachers' responses to distance-learning challenges vary depending on (educational directorate, specialization, experience)?
4. What are the possible solutions for facing distance-learning challenges from the teachers' point of view?

The Study Goals

This study aims at:

1. Identifying the challenges that female teachers working in Saudi public schools of the Jubail Region face in distance-learning in the areas of (teaching & learning, infrastructure and skills) during Corona time from their own point of view, and investigating the possible differences between their perspectives depending on the variables: (educational directorate, specialization, experience).
2. Suggesting possible solutions for facing distance-learning challenges from the female teachers' point of view.

The Importance of the Study

This study is important, both theoretically and practically, because it addresses the topic of distance-learning as one of the most important areas nowadays during Corona time, and because it highlights the experience of female teachers working at Jubail public schools in distance-learning. The results of this study are expected to benefit the following:

1. Senior leadership in the Ministry of Education in their efforts to face distance-learning challenges through preparing and implementing appropriate training and remedial plans.
2. Leaders of schools and supervisors in the General Education Department to get training on appropriate technical skills and transferring them to the field.
3. Saudi schools' teachers and students, by benefiting from the suggested solutions and improving their skills in order to overcome these challenges.

The Study Limits

1. This study was limited to investigating the challenges facing female public schools' teachers in Saudi Arabia (Jubail Directorate) during distance-learning.
2. The generalization of the study results is determined by the period of time in which it was conducted, that is the scholastic year 2020/2021, and the nature of the tool used.

The Study Terminology

Distance-learning: Banani et al., (2020, 258) define it as: "*education which dispenses the instructional methods that require the existence of both teachers and learners in one place and time, using instead the instructional methods which allow the use of media that mimic the existence of both teachers and learners as if they are in one classroom. But it offers learners the opportunity to experience self-learning, making use of printable and e-tools. In this way, learners will be responsible for their own learning and the acquisition of knowledge, so they will look for techniques that match their capabilities and identify their potentials*". This study adopts this definition as a procedural concept.

Corona: "*Corona viruses are a vast strain of viruses that may cause disease to animals and human beings*" mentioned in (WHO, 2020). This study adopts this definition as a procedural concept.

Distance-learning in Exceptional Circumstances

"Distance-learning is a learning pattern in which learning material is being reproduced electronically, and then they are distributed using any technological tool for the purpose of enhancing communication between teachers and learners and between learners and educational institutions as a whole, where students can interact with the educational content anytime and in a way that suits their educational needs" (Al-Zboun, 2020). The Arabian Organization for Education, Culture and Science defined it as: *"an educational system that is based on the idea of delivering the educational content to the student through various technical communication tools where the learner is remote and separated from the teacher"* (Al-Sharhan, 2014). Zhou et al., (2020) indicated that distance-learning refers to exploratory learning, easy-to-use learning, expanded and improved learning, which helps in rapidly disseminating the content through the application of information-technology and Internet-technology.

The COVID-19 pandemic has had the greatest impact on making institutions adopt distance-learning, especially after the closure of schools as a precautionary measure to prevent the spread of the virus (Basilaia & Kvavadze, 2020). Developed countries confirmed that online-learning has become a fundamental fact that adds new dimensions and perceptions to the course of the educational process, and it is nominated to stay even after the end of Corona. It should be noted here that the future global investments in technology will significantly increase from US\$ (18.66) billion in 2019 to nearly \$(350) billion by 2025 (Khanfar, 2020). These countries will do their best to explore and effectively implement this type of online education by educating students and making it a key part of school education (Zhou et al., 2020). Approximately, 96 countries have already introduced the scheduled instructional content over the internet, TV channels, virtual educational platforms, and other available electronic resources to cover the students' educational needs and school lessons (UNESCO, 2020).

"Madrasati platform" is: *"an e-learning management system, featuring many e-learning tools that support the teaching-learning process, and contribute to the achievement of educational goals of curriculum and courses. It also supports students' achievement of skills, values and knowledge so that they match the digital requirements of present and future"* (Madrasati, 2020). This platform features a package of supportive educational tools for the purpose of planning and implementing the instructional process through virtual meetings and classes, in addition to electronic tests and homework, discussion forums, electronic questionnaires, various educational resources (cartoon and visual videos - enhanced reality - 3D sources - educational books and stories), e-mail service, and the programs of Microsoft Office (365). The platform provides a variety of renewed channels for effective communication between the beneficiaries (students, their parents, teachers, schools' principals and supervisors). It also offers the chance to add educational books and courses for all general education stages, as well as various interactive and educational streams. It has a bank that covers more than 100 thousand e-question that are reviewed for all school courses, in addition to digital platforms that include more than 45 thousand digital educational content ranging from visual, electronic and gaming content, and more than 450 thousand electronic lesson plan shared by male and female teachers (Ministry of Education, 2020). Moreover, the virtual classes introduce safe lessons via the Internet using the Microsoft Teams program in which students interact with their teachers and discuss with them the electronic activities and assignments, and they also inquire about difficult points and receive support and motivation (Madrasati, 2020; Al-Zboun, 2020).

This study tries to investigate the distance-learning environment in the Saudi context of the Ministry of Education schools in order to stand on the most important challenges it faces from the perspective of its major component which is the teacher, and then suggest solutions for them in a way that maintains its excellence and continuous effectiveness. Due to the novelty of the topic, previous studies will be addressed within 2 dimensions as follows:

1. Some studies examined the general shape of distance-learning as a system in the country, such as Nae's (2020) study in Japan which addressed the readiness of the Japanese higher education to face this turmoil in its conservative ways, and the current situation for spreading information technology and communication in learning. It also investigated the difference between class-based education and distance-learning, and then it discussed the current trend of "*distance-learning in emergency time*" with its troubles and future missions. The study found that distance-teaching in emergency time is considered a temporary solution that may not provide students with the same efficacy of teaching if it is pre-designed electronically and in a good way
2. Studies investigated the effectiveness and importance of transition to distance-learning during the time of Corona, and the readiness of the educational institutions. The study of Basilaia & Kvavadze (2020) tried to reveal how much schools are able to continue the educational process- a case study of one of Georgia's private schools and a sample of 950 students- through the virtual platforms available such as the e-gate and Microsoft Teams. The study stressed the success of the quick transition to distance-learning, but it found that direct traditional teaching is more effective than distance-learning because the current curriculum is not designed for distance-learning via virtual platforms. Al-Hattami's study (2020) in Bahrain found that most students and teachers see the Internet as a good way for education so as to avoid the spread of the virus, and that we could effectively move to e-learning in general and e-assessment in particular, regardless some of the challenges they could face. Nevertheless, this type of education should not replace face-to-face learning. The sample included 118 teachers and 539 students from all levels. A quantitative-research design was used. 2 separate questionnaires were conducted for both students and teachers (including 37 items each). The teachers used a variety of techniques for formative and summative assessments that most students accept usefully. The use of different technological programs/applications for formative assessment helped teachers in presenting direct notes, encouraged students for participation and increased learning through improving students' achievement and performance. There were no statistically significant differences between the students' and teachers' responses. In Jordan, Al-Zboun's study (2020) aimed at revealing the effectiveness of distance-learning compared to direct education on students' achievement in the Arabic language, and compared their achievement in this subject during the 1st and 2nd semesters. The results showed that students' achievement was more excellent in direct teaching than in distance-learning. It recommended the need for re-designing the Arabic language content in a way that suits distance-learning, and merging direct teaching with e-learning in instruction. Hanawi & Najem's study (2019) in Nablus has a sample of 120 male and female teachers. Its results, from the teachers' point of view, showed that the obstacles of moving to distance-learning were high in terms of teachers' competencies in applying this type of teaching.

Studies related to this dimension were not confined to schools only. At Helwan University, Khalife's study (2019) aimed at identifying the efficacy of active learning using distance-teaching on developing students' academic achievement enrolled in the course of Learning Techniques at the PE college, and identifying the effectiveness of using distance-learning in developing students' attitudes towards learning this course. The experimental approach was used for 2 groups of students, with a total of 40 members with a percentage of 47.06 % from the society. The most important results were: the excellence of the experimental group students who studied using the active-learning strategy based on using distance-learning compared to the control group in the post-assessment of their academic achievement in the course (teaching techniques) at the PE College. The study recommended the need for using modern techniques in the teaching-learning process, and computerizing other courses so as to be adopted in teaching. In the context of universities, the study of Al-Smadi & Al-Jarrah (2020) aimed at identifying the impact of distance-learning on education economies. It used the

descriptive approach, and they developed and distributed a questionnaire among 145 faculty members working at the Jordanian public and private universities. The results showed that there were no statistically significant differences for the impact of distance-learning on teaching economies from the perspective of faculty members.

It is noted from the above that the studies which tackled the issue of teaching during Corona time has multiple dimensions, some are compatible, even partially, with the current study when it reviewed some of the challenges and problems that appeared when moving to distance-learning, and then it tried to find out appropriate solutions for the purpose of increasing distance-learning efficacy, such as the studies of Nae (2020), Basilaia & Kvavadze (2020), Al-Zboun (2020) and Al-Hattami (2020). Some of them addressed the topic within other different areas and in many societies, foreign and Arab. This study is distinguished because it investigated the nature of distance-learning in the Saudi context, and the most important challenges teachers face while distance-learning, in addition to suggesting some possible solutions for these challenges from the teachers' point of view. This study benefited from the previous studies in preparing the questionnaire, and identifying the suitable methodology, in addition to using their theoretical literature.

The Study Methodology

This study adopted the descriptive approach, and it used the questionnaire as a basic tool for collecting and analyzing the needed data.

The Study Society/Sample

The study society included all female teachers working at Jubail Girls' schools (main land/industrial area) for the scholastic year 2020/2021, with a total of (1321), according to the formal statistics of Jubail Directorate. The sample was chosen randomly, with a total of (375) female teachers, and a percentage of approximately 28.4% from the original society. Table 1 shows the distribution of sample participants on personal characteristics.

Variable	Sub-variable	Number	Percentage
Specialty	Scientific	189	50.4
	Humanitarian	186	49.6
Total		375	100
Directorate	Main land	154	41.1
	Industrial land	221	58.9
Total		375	100
Experience	Less than 5	17	5.4
	5 – 10	104	7.27
	More than 10	254	7.67
Total		375	100

The Study Tool

For the purpose of accomplishing the study goals, the tool of Khafar's study (under publication) was used, which was used in Jordan because it suits the Saudi environment, and it is a questionnaire directed for teachers and composed of 3 areas, with a total of 43 items. The areas are:

1. Distance-learning challenges in teaching and learning (12 items).
2. Distance-learning challenges in infrastructure and skills of using platforms (12 items).
3. Possible solutions for facing distance-learning challenges (19 items).

The questionnaire items were arranged according to a quadrant scale, as follows: the difficulty degree (from 1 to 4) where (1) stands for the least difficulty degree and (4) for the highest difficulty degree, and the importance degree for the last area (from 1 to 4), where (1) stands for the least importance degree and (4) for the highest importance degree (Khanfar, under publication).

The Tool Validity

The study tool was reviewed by 6 of the faculty members having different educational specialties (curriculum, curriculum & instructional methods, origins of education). They reviewed the items and offered their opinions regarding their clearance and relevance to the area. In light of their comments, some items were added and modified, and others were deleted after reaching a consensus of 80%. To verify the tool's internal consistency, Pearson's correlation coefficient was used to measure the relationship between each item and the overall degree of the area to which it belongs, as well as between each domain and the overall degree of distance-learning challenges. Tables 2 & 3 illustrate that as follows:

Area/Domain	Item	Correlation coefficient	Item	Correlation coefficient
Teaching & Learning Challenges	1	**696.0	7	**758.0
	2	**764.0	8	**756.0
	3	**719.0	9	**743.0
	4	**788.0	10	**789.0
	5	**666.0	11	**815.0
	6	**769.0	12	**800.0
Challenges of Infrastructure & skills of using platforms	13	**545.0	19	**674.0
	14	**737.0	20	**544.0
	15	**730.0	21	**749.0
	16	**730.0	22	**787.0
	17	**843.0	23	**795.0
	18	**828.0	24	**735.0
Possible solutions for facing distance-learning challenges	25	**697.0	35	**816.0
	26	**679.0	36	**769.0
	27	**704.0	37	**768.0
	28	**771.0	38	**780.0
	29	**696.0	39	**780.0
	30	**702.0	40	**791.0

	31	**596.0	41	**826.0
	32	**772.0	42	**727.0
	33	**820.0	43	**695.0
	34	**818.0		
**significant at (0.01)				

It is clear from the table that all correlation coefficients between each item and the area it belongs to were positive and statistically significant at the level (0.01).

Table 3	
CORRELATION COEFFICIENTS FOR THE AREAS OF DISTANCE-LEARNING CHALLENGES WITH THE OVERALL DEGREE	
Area / Domain	Correlation Coefficient
Teaching & Learning challenges	**953.0
Challenges of Infrastructure & skills of using platforms	**948.0
**significant at (0.01)	

Table 3 shows the correlation coefficients for the areas of distance-learning challenges with the overall degree. All of them were positive and statistically significant at the level (0.01). This indicates that all the questionnaire items were valid and they measure the goal that was originally set.

Stability

To verify the questionnaire stability, the Alpha Cronbach stability factor was calculated for the questionnaire areas. Table 4 illustrates that as follows:

Table 4	
VALUES OF STABILITY FACTORS FOR THE QUESTIONNAIRE AREAS/DOMAINS	
Area / Domain	Value of Alpha Cronbach factor
Teaching & Learning challenges	932.0
Challenges of Infrastructure & skills of using platforms	916.0
Distance-learning challenges as a whole	955.0
Possible solutions for facing distance-learning challenges	956.0

Table 4 shows values of Alpha Cronbach factors for the questionnaire areas, and they were high values, indicating that the questionnaire enjoys a high level of stability.

Statistical Processing Methods

To accomplish the study goals, SPSS program was used for analyzing data and having the following results:

- Frequencies & percentages to describe the features of the study sample.
- Means & Standard deviations to identify the responses of the study participants on each item.
- Pearson Correlation Factor to verify the validity of the questionnaire's internal consistency.
- Cronbach's Alpha Factor to verify the questionnaire's stability.

- Independent-Samples T-test for the differences significance between 2 independent samples.
- Kruskal-Walls Test to identify the differences significance between more than 2 independent samples.

DISCUSSION OF THE RESULTS

- Results related to the 1st question: What are the challenges female teachers working at Jubail public schools (mainland / industrial area) face during distance-learning in the area of teaching & learning during Corona time from their point of view?

To answer this question, means and SDs were calculated for the participants' responses regarding the challenges female teachers working at Jubail public schools (mainland / industrial area) face during distance-learning in the area of teaching & learning during Corona time from their point of view. Results are displayed in Table 5.

Table 5 MEANS & SDS FOR THE PARTICIPANTS' RESPONSES REGARDING THE CHALLENGES FEMALE TEACHERS WORKING AT PUBLIC SCHOOLS FACE DURING DISTANCE-LEARNING IN THE TEACHING-LEARNING AREA					
No.	Item	Mean	SD	Difficulty Degree	Rank
8	Difficulty in achieving the lesson goals which depend on practice through the virtual classes (like the skills of group work, leadership)	93.2	114.1	Medium	1
9	Lack of students' interaction with colleagues during virtual classes.	89.2	121.1	Medium	2
10	Difficulty to use a variety of authentic assessment methods in order to achieve the lesson goals.	81.2	186.1	Medium	3
2	Difficulty in executing practical activities in order to achieve the lesson goals.	78.2	178.1	Medium	4
4	Difficulty in maintaining students' motivation for participation.	71.2	133.1	Medium	5
3	Difficulty in students' interaction with the teacher via the system.	70.2	127.1	Medium	6
6	Difficulty in class time-management via the virtual platform.	58.2	156.1	Medium	7
12	Weak coordination between the teachers of one class in implementing lessons via the virtual platform.	58.2	183.1	Medium	8
11	Difficulty in providing students with effective feedback during the virtual class.	55.2	143.1	Medium	9
7	Worry and anxiety in the virtual classroom environment.	53.2	201.1	Medium	10
1	Lack of ability to link new knowledge with the previous one via the platform.	50.2	084.1	Medium	11
5	Lack of teacher's contribution to the student's transition towards self-learning.	38.2	159.1	Medium	12
Overall average		66.2	868.0	Medium	

Table 5 indicates that the means of participants' responses regarding the challenges female teachers working at Jubail public schools face in distance-learning in the area of teaching & learning during Corona time ranged from 2.38 to 2.93, and they were all medium in difficulty. Item (8) which says (Difficulty in achieving the lesson goals which depend on practice through the virtual classes (like the skills of group work, leadership) got the highest mean with a value of (2.93), and that is normal. This result is consistent with the study of Al-Zboun (2020), Basilaia & Kvavadze (2020) and Al-Hattami (2020). The 1st and the 2nd studies revealed that the traditional direct teaching is more effective than distance-learning because the current curriculum is not

designed for distance-teaching via virtual platforms. The 3rd study confirmed that distance-teaching should not replace traditional instruction, although teaching via virtual platforms proved to be effective as an alternative way for continuing teaching during Corona time, regardless some of the challenges that could appear. On the other hand, item (5) which says (Lack of teacher's contribution to the student's transition towards self-learning) got the least mean with a value of (2.38). This is due to the fact that transition to distance-learning was sudden for both teachers and students, and the majority of teachers did not have the opportunity, during the transition period, to take the necessary procedures for training their students on how to depend on themselves in self-learning which requires self-personal skills that need enough time of training and psychological and environmental preparation, particularly for preparatory and intermediate stages.

The Table 6 also shows that all items got an average of 2.66, with a medium difficulty degree. This indicates that all these items represent the challenges that female teachers working at Jubail public schools (mainland/industrial area) face in distance-teaching in the teaching-learning area during Corona time from their own perspective, and with a medium degree. This result is consistent with the results of all.(Nae, 2020; Zhou et al., 2020; and Al-Zboun's, 2020),which examined the most important problems and challenges faced by the Japanese, Chinese and Jordanian educational systems, respectively, during the transition period to distance learning. The following scale was used for signifying the means of participants' responses in the difficulty degree.

Table 6	
MEANS & DIFFICULTY DEGREE	
Mean	Difficulty degree
3 and more	High
2 - 3	Medium
Less than 2	Low

- Results related to the 2nd question: What are the challenges female teachers working at Jubail public schools (mainland / industrial area) face during distance-learning in the area of infrastructure & the skills of using the platforms during Corona time from their point of view?

To answer this question, means and SDs were calculated for the participants' responses regarding the challenges female teachers working at Jubail public schools (mainland / industrial area) face during distance-learning in the area of infrastructure & the skills of using the platforms during Corona time from their point of view. Results are displayed in Table 7.

Table 7					
MEANS & SDS FOR THE PARTICIPANTS' RESPONSES REGARDING THE CHALLENGES FEMALE TEACHERS WORKING AT JUBAIL PUBLIC SCHOOLS FACE DURING DISTANCE-LEARNING IN THE INFRASTRUCTURE & THE SKILLS OF USING THE PLATFORMS AREA					
No.	Item	Mean	SD	Difficulty Degree	Rank
15	It is difficult to have a PC for every student at home.	21.3	122.1	High	1
22	Lack of students' discipline in attending classes on time.	06.3	102.1	High	2
24	Lack of parents' assistance to their kids as intended during class time via the virtual platform.	93.2	121.1	Medium	3
17	Students' weak skills in using the system while following up	90.2	079.1	Medium	4

	lessons.				
23	Difficulty in following-up students' attendance.	87.2	162.1	Medium	5
21	Students' have difficulty in getting mobile phones for more communication with their teachers.	86.2	186.1	Medium	6
14	The quality of Internet connection is weak.	84.2	138.1	Medium	7
18	Students' weak skills in using e-tests.	78.2	140.1	Medium	8
16	Lack of teachers' skills in using the system for illustrating lessons.	62.2	122.1	Medium	9
13	The system only works via computers.	48.2	225.1	Medium	10
19	Teachers find it difficult to execute scheduled table assigned by the school administration.	38.2	193.1	Medium	11
20	Teachers refuse to communicate with students via other means rather than the platform.	37.2	223.1	Medium	12
Overall average		77.2	831.0	Medium	

Table 7 indicates that the means of participants' responses regarding the challenges female teachers working at Jubail public schools face in distance-learning in the area of infrastructure & the skills of using the platforms during Corona time ranged from 2.37 to 3.21, where items (15, 22) got high difficulty degrees, with 15 the highest, which states (It is difficult to have a PC for every student at home). It got the highest mean with a value of (3.21). This can be explained by the idea that families were not prepared enough for facing this pandemic which came suddenly, either with its entrance to the country or its quick spreading, encouraging the government to take rapid procedures represented by closing schools and transferring to distance-learning so as to protect teachers, students and all schools' employees from being infected. Also, the large number of members in the same family has prevented the availability of equipment for all, especially students enrolled in school. Moreover, all society segments have become totally dependent on distance-work, and therefore the need for everyone to have a separate device, in addition to using mobile phones to manage work affairs and carry out their duties. Item (22) which states (Lack of students' discipline in attending classes on time) got a high degree because of the intense use of devices available for the same family and which are insufficient for all members, in addition to item (24) which states (Lack of parents' assistance to their kids as intended during class time via the virtual platform) and got a medium difficulty degree with a mean of (2.93), which is a high value in this degree. This leads us to the conclusion that the exceptional situation that the Saudi family faced, like other families around the world, is the reason why families are not ready, whether in providing equipment or in child support mechanisms via the virtual platforms, as well as overcoming difficulties and challenges their kids face. This conclusion is consistent with the results of Nae's study (2020), and Al-Hattami's study (2020), but in the latter it was from the students' perspectives not the teachers' as in this study. The other items got a medium difficulty degree, with item (20) the least, which states (Teachers refuse to communicate with students via other means rather than the platform). It got the least mean with a value of (2.37). This is ascribed to the fact that teachers, after experiencing distance-teaching and facing lots of challenges, mainly direct communication with students, tended to replace direct-communication means with technological methods available at social media although they are not available for all students and with the same efficiency level. The table also shows that all items got an average of 2.77 with a medium difficulty degree. This signifies that all these items represent the challenges facing female teachers working at Jubail public schools (mainland/industrial area) in distance-learning in the area of infrastructure & the skills of using

platforms during Corona time and from their own perspective, with a medium degree. This conclusion agrees, even partially, with the results of all (Basilaia & Kvavadze 2020; Nae, 2020; Al-Hattami, 2020; Zhou et al., 2020; Banani et al., 2020; and Henawi & Najem 2019).

- Results related to the 3rd question: Do female teachers' responses to distance-learning challenges vary depending on (educational directorate, specialization, experience)?

According to the Educational Directorate

To answer this question, T-test for independent samples was used to identify the differences' significance in female teachers' responses regarding distance-learning challenges according to the variable of educational directorate. Results are displayed in Table 8.

Table 8 RESULTS OF INDEPENDENT SAMPLES T-TEST FOR IDENTIFYING THE SIGNIFICANCE OF DIFFERENCES BETWEEN TEACHERS' RESPONSES AROUND DISTANCE-LEARNING CHALLENGES IN ACCORDANCE TO THE VARIABLE OF EDUCATIONAL DIRECTORATE							
Area/domain	Educational directorate	No.	Mean	SD	T-value	Freedom degrees	Significance level
Teaching & learning challenges	Jubail (mainland)	154	63.2	846.0	633.0-	373	527.0
	Jubail (industrial area)	221	68.2	884.0			
Infrastructure & skills of using platforms challenges	Jubail (mainland)	154	72.2	793.0	127.1-	373	261.0
	Jubail (industrial area)	221	82.2	856.0			
Distance-learning challenges as a whole	Jubail (mainland)	154	67.2	768.0	920.0-	373	358.0
	Jubail (industrial area)	221	75.2	834.0			

It is clear from Table 8 that the values of significance levels were higher than (0.05) in all areas, and this indicates that there are no statistically significant differences in female teachers' responses regarding distance-learning challenges for the variable of educational directorate. This signifies that the points of views of female teachers working at public schools are the same regarding distance-learning challenges during Corona time in both Jubail (mainland) directorate and the industrial area directorate.

This is ascribed to the fact that the Ministry of Education has launched Madrasati platform for all schools in the Kingdom and for all students. It also provided all beneficiaries with the supportive educational tools for the purpose of planning and implementing educational classes via the virtual platforms. The Ministry has also provided all, via Madrasati platform, with educational resources and renewed channels, with more than 450,000 electronic lesson plan, shared by male and female teachers who have already been trained before and the start of the academic year and during it (Ministry of Education, 2020), contributing to the transfer of experiences and expertise to other teachers all over the kingdom.

According to Specialty

To answer this question, T-test for independent samples was used to identify the differences' significance in female teachers' responses regarding distance-learning challenges according to the variable of specialty. Results are displayed in Table 9.

Area/domain	Specialty	No.	Mean	SD	T-value	Freedom degrees	Significance level
Teaching & learning challenges	Humanitarian	186	73.2	840.0	614.1	373	107.0
	Scientific	189	59.2	891.0			
Infrastructure & skills of using platforms challenges	Humanitarian	186	85.2	799.0	781.1	373	076.0
	Scientific	189	70.2	857.0			
Distance-learning challenges as a whole	Humanitarian	186	79.2	780.0	784.1	373	075.0
	Scientific	189	64.2	830.0			

It is clear from Table 9 that the values of significance levels were higher than (0.05) in all areas, and this indicates that there are no statistically significant differences in female teachers' responses regarding distance-learning challenges ascribed to the variable of specialty. This signifies that the points of views of female teachers are the same in both specialties regarding distance-learning challenges. This could be explained by the fact that all teachers working at the Kingdom schools deal with the same platform on which they were trained, as well as being trained on using its tools and features and what it offers to support the teaching process, regardless of the teacher's specialty.

According to Experience

To answer this question, Kruskal-Walls Test was used to identify the differences' significance in female teachers' responses around distance-learning challenges, according to the experience variable. Results are illustrated in Table 10.

Area/domain	Experience	No.	Ranks' average	Kruskal Walls	Freedom degrees	Significance level
Challenges of teaching & learning	Less than 5	17	74.129	875.5	2	053.0
	5 - 10	104	38.198			
	More than 10	254	65.187			
Infrastructure & skills of using platform challenges	Less than 5	17	35.116	954.7	2	019.0
	5 - 10	104	01.195			
	More than 10	254	93.189			
Distance-learning challenges as a whole	Less than 5	17	53.118	805.7	2	020.0
	5 - 10	104	55.197			
	More than 10	254	74.188			

It is clear from Table 10 that the values of significance levels were lower than (0.05) in all areas, and this indicates that there are statistically significant differences in female teachers' responses regarding distance-learning challenges ascribed to the variable of experience. By looking at the ranks' averages, we can see that the challenges for those whose experience is less than 5 years were lower than the challenges facing those whose experience is more than 10 years or ranges from 5 to 10 years, whereas the challenges of teaching and learning area were the same, whatever the experience is.

This is explained in that it is normal that the challenges related to infrastructure and skills of using the platform are lower for those with less teaching experience because they are usually more communicative and connected to technology and its tools due to their low age when compared to those who have medium or high teaching experience. We notice that there are statistically significant differences between those of different teaching experience in distance-learning challenges in the area of teaching and learning.

- Results relates to the 4th question: What are the possible solutions for facing distance-learning challenges from the female teachers' point of view?

To answer this question, means and standard deviations were calculated for the participants' responses regarding the possible solutions for facing distance-learning challenges. Results are displayed in Table 11.

Table 11					
MEANS & SDS FOR THE PARTICIPANTS' RESPONSES REGARDING THE POSSIBLE SOLUTIONS FOR FACING DISTANCE-LEARNING CHALLENGES					
No.	Item	Mean	SD	Importance Degree	Rank
42	Creating technical-support channels for teachers and students.	88.2	146.1	High	1
38	Training students on distance-learning tools and mechanisms before starting.	84.2	184.1	High	2
39	Providing parents with advice that may support them in delivering better assistance for their kids via TV and radio,	82.2	158.1	Medium	3
40	Activating a platform for collecting feedback from stakeholders.	80.2	169.1	Medium	4
37	Offering teachers' ongoing training on how to use technology in distance-learning.	76.2	211.1	Medium	5
25	Introducing the content in an attractive way.	75.2	066.1	Medium	6
41	Assessing the experience to make use of feedback.	75.2	154.1	Medium	7
28	Students introduce certain content under the teacher's supervision.	74.2	090.1	Medium	8
33	Providing a safe learning-teaching environment.	74.2	191.1	Medium	9
29	Students execute activities through small groups.	72.2	165.1	Medium	10
32	Introducing remedial and enrichment classes.	72.2	161.1	Medium	11
34	Benefiting from the features available at social media in enhancing students' learning (text messages, audio messages, photos, videos).	68.2	209.1	Medium	12
36	Benefiting from blogs and audio recordings plus other resources which consume smaller amount of data.	68.2	153.1	Medium	13

43	Exchanging visits to benefit from the suggested notes in order to improve performance.	68.2	185.1	Medium	14
30	Offering students chance to assess themselves subjectively and confidentially.	67.2	161.1	Medium	15
35	Using Internet tools to offer lesson plans, video clips and educational lessons.	67.2	185.1	Medium	16
27	Applying ice-breakers.	64.2	133.1	Medium	17
31	Students share in peer-assessment.	61.2	166.1	Medium	18
26	Educational sessions include entertainment activities.	56.2	135.1	Medium	19
Overall average		72.2	867.0	Medium	

Table 11 shows that means of participants' responses regarding the possible solutions for facing distance-learning challenges ranged from 2.56 to 2.88, with medium importance degrees for all. Item (42) which say (Creating technical-support channels for teachers and students) got the highest mean with a value of (2.88), and this is natural because the skills of using technology are one of the most important requirements of this current stage during COVID-19. Need for technical-support channels for the users of educational platforms in the Kingdom of Saudi Arabia has increased, with the Ministry of Education deciding to continue distance-teaching for a period of seven weeks during the 1st semester of the scholastic year 2020/2021, until the virus disappears.

This has increased the importance of having technical support in order to raise the skill level in using the platform tools and its many features. This was confirmed in item (38) which got the 2nd highest mean, and it says (Training students on distance-learning tools and mechanisms before starting) due to training big impact on promoting distance-teaching and facilitating its use perfectly, regarding effective access to the platform in appropriate time and speed. This result is consistent with the results of many Arab and foreign studies which stressed that distance-teaching will be a preferred way and an available alternative even after the pandemic ends.

They also called for preparing both teachers and students in order to be well-prepared and well-qualified for this (Khanfar, 2020; Zhou et al., 2020; and Al-Lily et al., 2020). Whereas item (26) which states (Educational sessions include entertainment activities) got the least mean with a value of (2.56). This is ascribed to the fact that this current stage is an extension to a previous one, which is the 2nd semester of the previous year in which we started moving to distance-teaching. Teachers think that incorporating some entertainment in the lesson may lessen time scheduled for teaching and learning, and delay the achievement of the goals and outcomes of the virtual lesson.

Consequently, knowledge loss and educational gap will widen among students, in addition to teachers' need for completing the curriculum scheduled in the annual plan and on time. The table also shows that all item got an average of 2.72 with a medium importance degree. This signifies that all items represent the possible solutions available for facing distance-learning challenges from female teachers' perspectives, with a medium degree. This conclusion agrees, even partially, with the results of Nae, 2020; Zhou et al., 2020; Al-Lily et al., 2020; Basilaia & Kvavadze, 2020; Al-Hattami, 2020; and Henawi & Najem; 2019) where the following scale was used as illustrated in Table 12 to signify importance degree of the means of participants' responses.

Table 12	
MEANS & IMPORTANCE DEGREES	
Mean	Importance Degree
3 and more	High
2 - 3	Medium
Less than 2	Low

Summary of Results

The most important findings of the study can be summarized as follows:

It was found that the most important challenges facing female teachers working at Jubail public schools (mainland/industrial area) in distance-teaching in the field of teaching & learning during Corona time from their own perspective are the ones that are highly liked to achieving practical goals or objectives of practical nature, in addition to life skills which are acquired through training and direct ongoing practice. In the field of infrastructure and the skills of using the platform, it was noted that the biggest challenge is linked to devices and families ability to make them available for their kids nevertheless.

The Study Recommendations

In light of the study conclusions, the researcher recommended the following:

1. The Ministry of Education should enhance the virtual platform (Madrasati) with more programs and applications that contribute to the accomplishment of practical objectives and its relevant skills like using the simulation program, and offer training for both teachers and students.
2. The Ministry of Education should hold periodic training courses and workshops for the students and their parents on the mechanisms and tools of using Madrasati.
3. The Ministry of Education should provide parents with advice to help them offer their kids better support under these exceptional circumstances, which is via various means like TV, radi, and different social media.
4. The public schools should apply the solutions mentioned in this study in order to face and overcome the challenges of distance-learning.

The Study Suggestions (Proposals)

The researchers suggest conducting more studies in the same field where they address different variables. The following are some of the suggested titles for the studies:

- Distance-learning in private schools: challenges and solutions.
- Distance-learning in Saudi public universities: reality and hope.
- The reality of distance-learning in the public and private universities of Saudi Arabia: a comparative study.
- Applications of distance-learning for teachers and students: reality and hope.
- Investment I distance-learning in the public and private education: a comparative study.

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