

Evaluating Distance Learning Experience in Egyptian schools in light of the Corona crisis and its developments

Dr. Yasmin Mohammed meligy Shahin

Faculty of Education, Tanta University, Egypt

Abstract

In light of the global crisis that the country is going through, represented by an epidemic- A crisis caused by the outbreak of the Corona virus 19 - Covid worldwide, causing respiratory symptoms including fever, coughing, fatigue, shortness of breath, and more severe lung problems - that we fear will spread among our students if they mix with the traditional school environment! Distance education has become a solution to the crisis and is no longer an option, so the current study aimed to evaluate this new experience and survey the opinions of its beneficiaries (teachers, students, parents), with the aim of measuring the effects related to efficiency, effectiveness, and the level of satisfaction resulting from the application of distance education, revealing the challenges, and difficulties that hinder the continuation of Distance learning process, especially since the distance learning experiences came as a solution to the crisis, and solutions to the crisis may not be perfect, and then work in the future to processing them and develop the e-learning system.

Keywords: *Distance Learning Experience- Egyptian schools- Corona crisis.*

Introduction:

In light of the health crisis caused by the spread of the Corona pandemic or Covid -19 and its repercussions on most countries of the world, including Egypt, the first result of which was the closure of educational institutions, the Egyptian Ministry of Education adopted an urgent plan to ensure the continuation of the educational process, so the Ministry decided to cancel final exams for years students

from the third primary to the second intermediate grade, replacing it with scientific research and launching study platforms that bring the student together with the teacher, and the student joins them through a digital code assigned to him by ministry to allow him to join those platforms.(El Badry,2020)

Where Dr. Tariq Shawky announced in his meeting on March 30, 2020, that the Ministry has provided a digital library (<https://study.ekb.eg>) that includes many different digital educational references and resources to help our students learn, this is a digital library. A major source beside the Egyptian Knowledge Bank in the preparation of research projects for students in the educational stages from the third primary to the third intermediate level, pointing out that the ministry also provided a live broadcast platform for the virtual classes, which allows the live broadcast of lessons and reviews for preparatory and high school students, and live communication between them and the teacher through Link (<https://stream.moe.gov.eg>), this is in addition to the electronic exams for the first and second secondary grades (ECSS,2020).

The Egyptian Ministry of Education has taken care of the problem of interactivity, and for that reason launched Edmodo as the largest and largest educational social network in the world, so that nearly 22 million students distributed in nearly 55 thousand schools can communicate with their teachers as if they were present at school. Work will begin on the platform on Tuesday, April 7, 2020.(Abdel Hamid,2020).

The Minister of Education stressed that the Edmodo platform is the first source approved by the Ministry of

Education to hold direct meetings between students and their teachers, and to deliver and receive the required research during official dates to be announced on this platform according to the available schedules, and under the supervision of the Ministry, and there are no other platforms. This comes within the framework of providing distinct educational solutions and offering alternatives, so that the student can obtain his lessons and complete the educational journey, in light of the suspension of studies within the precautionary health measures.(Shawky,2020)

In another context, the Ministry of Communications and Information Technology launched a number of initiatives to support the distance education system in coordination between the National Telecommunications Regulatory Authority and the four companies providing telecommunications services in Egypt and in coordination with the Ministry of Education and the Ministry of Higher Education, where 20% of the monthly download capacities were added to home Internet subscriptions. For individuals, free of charge, at a cost of 200 million pounds, so that students can log on to these platforms, receive lessons and browse the contents under the supervision of their parents without incurring any costs and without consuming a mobile package or home subscription to the Internet. (Hamadeh,2020)

It should be noted that there are many international scientific experiences and research that have been concerned with studying, documenting and evaluating the option of distance education in face of the Corona crisis as a new educational situation, including the experience of Italy, which is the first country in the European continent that lived through the experience of the Corona epidemic.

Italian schools tried to deal with the emergency situation from the beginning, and teachers were trained to use websites and applications for education and online communication, and teachers' opinions showed that advanced students in the traditional classrooms are the best in performance and online follow-up, and some teachers have suffered as some students tried to avoid following lessons. On the pretext of disconnecting the connection, or trying to turn off the camera or disable the sound, and teachers tried to overcome these problems by finding new ways to attract students to learn online, in addition, some of them tried to play the role of a specialist or social counselor to alleviate the state of tension and anxiety experienced by Italians (Winter, 2020).

American experience, as both (Turner & Adame, 2020) and Nilson (2020) indicated that the sudden closure of American schools in mid-March showed a disparity between the different US states and the existence of a real digital division in the American community. The Associated Press mentioned that 17% of American students do not have a personal computer at home, and 18% of them do not have access to the Internet. To solve this problem, some school districts provided educational content in the form of paper packages to those students who do not have personal computer, or are unable to access the Internet, and some regions provided portable devices for education and Wi-Fi hotspots, as the results of a study conducted by the Foundation showed RAND American Research, which included 1000 teachers and 1000 principals and school principals in various US states, that although all teachers participate in the distance education experience, only 9% of teachers in schools provide services for low-income

students or students Colored people, compared to about a quarter of teachers in other schools (Hamilton, 2020).

In developing countries, a group of researchers conducted a study (Subedi et al., 2020) aiming at evaluating the effectiveness of distance education during the COVID-19 pandemic on nursing teachers and students. In Nepal, South Asia, the researchers followed the descriptive approach, and an electronic questionnaire was applied to a sample of (104) nursing teachers and (1012) students from 13 different nursing colleges in Nepal who studied via distance education during the COVID-19 pandemic. The results of the questionnaire showed that what almost half of teachers (42.3%) are affected by the electricity problem, 48.1% due to internet problems. While more than half of the students (63.2%) were affected by the electricity problem and 63.6% by the Internet problem, only 64.4% of the students were able to follow their lessons online. However, 58.4% of them used a mobile phone (cell phone).

As for the Arab countries, the Center for Strategic Studies of the University of Jordan conducted a study in (April 2020) under the title: (Corona virus and distance education, the experience of the Ministry of Education in Jordan), and the results showed that (20%) of the respondents following the e-learning platform and TV channels Educational platforms provided by the Ministry of Education believe that these platforms are not as good as school education. Only about 38.8% of the families have a suitable home environment for distance learning. And that more than (90%) of the students are eager to interact with their teachers and colleagues. (The official account of the Jordanian Ministry of Education, April 9, 2020).

While (Miqdadi, 2020) conducted a study aiming at uncovering the perceptions of high school students in public schools in Jordan for the use of distance education in light of the Corona crisis and its developments. The descriptive survey approach was used and the study sample consisted of (167) students. The study indicates that there is a positive impact on the use of distance education in light of the emerging Corona crisis in the schools of the Irbid, to a very large extent. Paragraph (1), which states that “Distance education enriches my education,” came in first place, with an average of (4.78). Paragraph (19), which reads: “It helped eliminate many student problems in the last rank, with a mean of (3.60).

Al-Shdeifat, (2020) conducted a study aiming at identifying the reality of employing distance education due to Corona disease in the schools of Al-Mafraq, from the point of view of the school principals. Qasbah Al Mafraq Schools. The results of the study showed that the reality of employing distance education due to the Corona disease from the point of view of the school principals of Mafraq Kasbah came to a medium degree, with a mean score of (2.49).

In Morocco, Kasmi, et al. (2020) conducted a study that aimed at identifying teachers' attitudes regarding distance education imposed by quarantine, and the study relied on a mixed curriculum that combines theoretical study and quantitative study For the topic of the research, where an electronic form was prepared and applied to a sample of 108 teachers in the region's schools, and among the most prominent results of the survey was that a large percentage of teachers, about 4,95%, believe that distance

education cannot achieve the same objectives of urban education.

Regarding the Emirati experience, the results of the Emirates Center for Strategic Studies and Research study – ECSSR- (May, 2020) showed that the distance education experience that the UAE government implemented in all schools and universities was successful to a large extent, due to several basic factors, foremost of which is the strong digital infrastructure. Which is owned by the state and that helped the continuation of education in its new form (Halawa,2020).

As for the Saudi experience in managing the crisis that resulted from the Corona epidemic, the Ministry took the initiative to define a variety of remote education options for more than six million students across the Kingdom, ten hours after the decision to suspend studies, and without stopping the educational process for a day. One, under the direct supervision of His Excellency the Minister of Education, Dr. Hamad bin Muhammad Al Al-Sheikh, which contributed greatly to the successful continuation of the educational process. This is attributed to the Kingdom's experience and past experiences in providing distance education services to male and female students on the southern borders of the Kingdom. (Saudi Ministry of Education, 2020)

The Saudi experience agreed with its counterpart in the United Arab Emirates, as the UAE has great experience and expertise in the field of using technology in education, and this experience differed from the experiences previously reviewed, which witnessed a lack of capabilities and requirements, and a weakness in the infrastructure and

technology of the system, which represents an obstacle. In front of it in achieving the principle of equality and equal educational opportunities, especially for students who come from poor and disadvantaged environments.

The sudden transformation of an unusual educational system under sudden circumstances makes matters unclear and raises a lot of controversy about the educational issue, as teachers, students and their parents need more time to adapt to this new system, and from here the researcher believes that this experiment must be subjected to a real evaluation of its development. In the future, and benefiting from it after the crisis in the field of integrating technology with education.

Research Problem:

Sudden transformation of an unusual educational system under sudden circumstances makes matters unclear and raises a lot of controversy about the educational issue, as teachers, students and their parents need more time to adapt to this new system, and from here the researcher believes that this experiment must be subject to a real evaluation to develop it in the future, and to benefit from it after the crisis in the field of integrating technology with education.

Research Aims:

this research aims to:

- Expose the effectiveness of emerging distance education system in facing the current crisis the country is going through.
- Shed light on the experiences of some global countries in managing the educational crisis resulting

from the Corona epidemic and benefiting from the experiences of countries that have succeeded in planning for getting rid of them.

- Expose the most important obstacles and problems facing the emerging distance education system from the point of view of the beneficiaries (students, teachers, and parents), to try to find solutions to them.

Research Importance:

the importance of this research stems from:

- Benefiting from this new experience in developing the current education system and establishing a system for education in emergencies.
- This research may contribute to solving many of the problems associated with traditional education, such as: the problem of congestion, pressure on means of transportation, environmental pollution, the increase in the number of students registered with the shortage of school buildings, and the restrictions imposed on teachers represented in administrative work and traditional roles.

Methodology:

Model of the Study:

current research followed the descriptive approach that seeks to describe a phenomenon or problem, and quantify it by collecting codified data and information about it, then classifying it, analyzing it, and interpreting it to gain a deeper understanding of the phenomenon or problem under study.

Research Community:

The research community consists of all middle school teachers, students of middle school in Gharbia Governorate, and their parents, whether in urban, semi-urban or rural areas.

Research Sample:

It included (178) male and female teachers, (260) students and (260) parents, according to one guardian for each pupil, who were selected from (13) middle school in different regions (urban, semi-urban and rural) in the Gharbia governorate. And that is in the second semester of the year 2019-2020.

Data Collection Tools:

Electronic forms were formulated via the Google Forms application on 5/22-2020, and they were stopped to begin analyzing data on 5/26-2020. The three questionnaires included general data on the participants in addition to the test statements for each axis of the research .

The validity of the content of the scale was calculated by presenting it to a number of referees in the specialty: curricula and methods of teaching computer and educational technology, and then it was modified based on their observations by reformulating some of the phrases. The stability of the scale was also determined by calculating Cronbach's Alpha, and as shown in Table (1), the scale had a reassuring reliability coefficient, and the scale axes separately also enjoyed reassuring stability coefficients indicating its suitability for use.

Table (1): coefficients of reliability of distance learning experience evaluation scale (students, teachers, parents).

| Questionnaire axes | Number of paragraphs | Cronbach's Alpha Stability Coefficient |
|--|----------------------|--|
| First: Questionnaire for students | 23 | 0.88 |
| (1-1): Challenges of the continuity of distance learning | 4 | 0.77 |
| (1-2): Self-organization of home study | 3 | 0.81 |
| (1-3): Communicate with the educational institution. | 3 | 0.73 |
| (1-4): Technological Challenges. | 4 | 0.68 |
| (1-5): The Ministry's initiatives to ensure the continuity of distance education. | 9 | 0.79 |
| Second: Questionnaire for teachers | 15 | 0.90 |
| (1-2): Challenges of the Continuity of Distance Learning. | 5 | 0.83 |
| (2-2): Communication with students from a distance. | 2 | 0.85 |
| (2-3): Technological Challenges. | 1 | 0.75 |
| (2-4): The Ministry's initiatives to ensure the continuity of distance education. | 7 | 0.78 |
| Third: Questionnaire for parents | 8 | 0.89 |
| Overall stability of the scale is | 46 | 0.93 |

Results & Discussion:

First: Results related to personal data:

In order to take a clear picture about the students, teachers and parents targeted by the research, a group of personal questions related to the research topic were asked, and the results were as shown in the following tables:

Table (2): General data about students participating in the questionnaire of distance education experience.

| Variables | Kind | | Quarantine area | | | Its educational institution | |
|--------------|--------|--------|-----------------|------------|-------|-----------------------------|---------|
| | Male | Female | urban, | semi-urban | rural | public | Private |
| Number | 118 | 142 | 97 | 77 | 86 | 174 | 86 |
| Percentages% | 45.40% | 54.60% | 37.30% | 29.60% | 33% | 67% | 33% |

Table (3): General data about teachers participating in the questionnaire of distance education experience.

| Variables | Kind | | Quarantine area | | | Years of Experience | | |
|---------------|--------|--------|-----------------|------------|--------|---------------------|------------------------|-------------------|
| | Male | female | urban | semi-urban | Rural | Less than 5 years | Between 5-15 years old | Over 15 years old |
| Number | 80 | 98 | 60 | 58 | 60 | 43 | 71 | 64 |
| Percentages % | 44.90% | 55% | 33.70% | 32.60% | 33.70% | 24.15% | 40% | 36% |

Table (4): General data about parents participating in the questionnaire o of distance education experience.

| Variables | Kind | | Quarantine area | | | Qualification | | |
|--------------|------|--------|-----------------|------------|-------|---------------|---------|---------|
| | Male | Female | urban, | semi-urban | Rural | High | average | without |
| Number | 164 | 96 | 97 | 77 | 86 | 156 | 73 | 31 |
| Percentages% | 63% | 37% | 37.30% | 29.60% | 33% | 60% | 28% | 12% |

It is evident from the results of Table (2), (3), and (4) the diversity in the selection of the sample so that it is comprehensive for all the units of the community targeted

by the research in order to enable the formation of a comprehensive picture of the subject, and the interpretation of the results by looking at them from different angles.

Second: Results related to reality of distance learning experience, its interpretation and discussion:

(2-1) students 'opinion poll about the distance learning experience:

The following table shows the percentage and rank of each of the scale paragraphs of the students' opinions survey about the distance learning experience:

(2-1-1): Challenges for the Continuity of Distance Learning:

| N | 1. When you were notified of the news of the closure of your educational institution due to the Corona epidemic, and you continued your studies remotely from home, what are the fears that came to your mind: (You can choose more than one answer) | percentage | rank |
|---|--|------------|------|
| 1 | It will be an interesting academic year. | 46% | 2 |
| 2 | Available technological equipment and Internet access. | 36.50% | 3 |
| 3 | How will the evaluation process take place and how will the examinations be performed. | 61.50% | 1 |
| 4 | psychological stress. | 10.80% | 5 |
| 5 | Inability to continue studying remotely. | 30.80% | 4 |

It is evident from the above percentages that (46%) of students have concerns about how the evaluation process will take place, (36.5%) have concerns about the lack of devices and internet interruption, (30.8%) have fears of not being able to continue studying remotely, (10.8%) have fears of psychological stress. While (46%) thought that it would be an enjoyable academic year; The explanation of that today's generation is passionate about technologies and

spends most of their time browsing the Internet in search of information.

| N | 2. During your follow-up of your studies from home, what method or technological means that you employ to keep up with your studies remotely: (more than one answer can be chosen) | percentage | rank |
|----------|---|-------------------|-------------|
| 1 | Virtual Sharing Streaming Platform (stream.moe.gov.eg). | 35.40% | 3 |
| 2 | Edmodo educational platform. | 55.80% | 2 |
| 3 | The webpage or channel of the instructor or institution. | 12.70% | 5 |
| 4 | The official website of the Ministry of Education | 13.50% | 4 |
| 5 | Egyptian Knowledge Bank. | 10.80% | 6 |
| 6 | Social networks (Facebook, Messenger, WhatsApp, Skype, Zoom ... etc.). | 61.50% | 1 |

The previous percentages indicate that the majority of students (61.5%) prefer learning through social networks (Facebook, Messenger, etc.), while (55.8%) continue their learning through the Edmodo educational platform, and The explanation of that Edmodo platform has an easy and familiar user interface. For students, it is very similar to the famous Facebook website, and the platform provides all learning and teaching requirements that are compatible with the skills of 21- century, and the student feels as if he is in a real classroom.

| N | 3. In the current situation, what are the difficulties that you face while following your lessons from home? | percentage | rank |
|----------|---|-------------------|-------------|
| 1 | I am not good at using computers or smart phone applications. | 20.40% | 1 |
| 2 | I cannot access the internet. | 13.50% | 3 |
| 3 | I don't know how to access the online | 9.20% | 5 |

| | platforms. | | |
|---|--|--------|---|
| 4 | I do not have the technological equipment necessary for distance learning at home. | 8.10% | 7 |
| 5 | I cannot reach to the information for following up my lessons. | 8.80% | 6 |
| 6 | I cannot stick to the time plan Distance learning | 14.60% | 2 |
| 7 | I cannot share the equipment provided with my sisters. | 6.90% | 8 |
| 8 | My family does not agree to this kind of learning. | 6.20% | 9 |
| 9 | I do not find any difficulty in distance education. | 12.30% | 4 |

It is evident from the above percentages that there is a clear disparity in the difficulties facing students, the reason is that things are not clear to students, the sudden shift towards a new educational system multiplies the difficulties and challenges, and that working with a remote e-learning system needs a well thought out plan and a period of Time for it to bear fruit as desired.

| N | 4. By doing distance learning, do you feel that your motivation and enthusiasm for studying may: | percentage | rank |
|---|--|------------|------|
| 1 | Increased. | 46.15% | 1 |
| 2 | No thing happened. | 43.46% | 2 |
| 3 | Decreased. | 10.38% | 3 |

The above percentages indicate that a significant percentage of students (46.5%) have increased their motivation towards distance learning, the reason is that the distance education pattern reduces the focus on the formal curricula, and enables students to learn at the pace that suits them, and pay more attention to things. Which they enjoy doing.

(2-1-2): Self-organization of remote study at home:

| N | 5. During this period of distance learning, how much time do you invest daily to pursue and accomplish your academic assignments? | percentage | rank |
|----------|--|-------------------|-------------|
| 1 | Less than an hour. | 7.30% | 5 |
| 2 | hour. | 18.50% | 3 |
| 3 | From one to two hours. | 25% | 2 |
| 4 | From two to three hours. | 35.80% | 1 |
| 5 | More than three hours. | 13.50% | 4 |

The above percentages indicate that a significant percentage of students, ranging between (25% -35.8%), spend a period ranging from one to two hours and from two to three hours, respectively, practicing study and distance learning activities, The reason is due to infrastructure such as internet networks are not effectively prepared, especially with the increasing pressure on them during times of lockdown when citizens stay in their homes, so the benefit from the distance education process was not proceeding at a uniform pace for students, as the majority of village student depend mainly on Internet packages and not "Wi-Fi", which makes it difficult for them to attend lectures online for more than three hours a day.

| N | 6. while you do your learning tasks at home, do you receive assistance from a member of your family (your mother, father, one of your sisters...) | percentage | rank |
|----------|---|-------------------|-------------|
| 1 | Yes, they help me a lot. | 13.80% | 5 |
| 2 | Yes, every now and then. | 17.70% | 3 |
| 3 | No one helps me but don't have enough time. | 27.70% | 1 |
| 4 | No one helps me who do not have enough skills. | 24.60% | 2 |
| 5 | I don't need help, I can continue and complete my study assignments on my own. | 16.20% | 4 |

The previous results indicate that (27.7%) cannot obtain help from their families because of the time factor, while (24.6%) their parents do not have sufficient skills to provide them with assistance, and this due to factors related to the social and cultural level of the family. Parents face difficulty in performing this task, especially for families with limited education and resources.

| N | 7. What are the practices that you adopt that helped you complete the distance learning tasks ⁶ | percentage | rank |
|---|---|------------|------|
| 1 | I set myself a work schedule. | 24.60% | 2 |
| 2 | I dedicate part of my time to follow my lessons regularly. | 25.80% | 1 |
| 3 | I try to stick to the schedule set by my teacher. | 22.30% | 3 |
| 4 | I communicate and collaborate with those who motivate and help me learn (friends, family, teachers... etc). | 15.40% | 4 |
| 5 | None of the above. | 11.90% | 5 |

The previous results indicate that (25.8%) of the students see that the self-regulation of learning time is one of the main factors that helped them to successfully complete the tasks of distance learning, the reason for this is that this type of education requires self-discipline, as the student who cannot divide his time, and to commit himself to certain duties, he finds it difficult to adhere to the requirements of this type of education, and the chance of being dispersed increases.

(2-1-3): Communication with the educational institution:

| N | 8. Can you communicate with your teachers and classmates? | percentage | rank |
|----------|--|-------------------|-------------|
| 1 | Yes. | 95.40% | 1 |
| 2 | No. | 4.60% | 2 |

| N | 9. If the answer is yes, you contact them: | percentage | rank |
|----------|---|-------------------|-------------|
| 1 | Once a week. | 21.40% | 3 |
| 2 | Two or three times a week. | 39.10% | 1 |
| 3 | More than three times a week. | 31% | 2 |
| 4 | Daily. | 8.50% | 4 |

| N | 10. They contact you by: | percentage | rank |
|----------|--|-------------------|-------------|
| 1 | Distance learning management platforms (stream, edmodo) . | 43.10% | 1 |
| 2 | The teacher's page, website, or channel. | 21.80% | 3 |
| 3 | The location of the school or institution. | 3.20% | 4 |
| 4 | Social networks (Facebook, Messenger, WhatsApp, Skype, Zoom ... etc). | 28.60% | 2 |
| 5 | E-mail. | 1.20% | 6 |
| 6 | I have not received any communication. | 1.90% | 5 |

The previous results indicate that (43.1%) of the students use distance learning management platforms (stream, edmodo) as a means of communication with each other, (28.6%) of them use social networking sites (Facebook, Messenger ...), (21.8%) of them use Pages or websites for the teacher, the reason is due to edmodo is the official platform approved by the Ministry of Education for distance learning and communication between the parties to the educational process, and the ministry's replacement of the second semester exams with a research project that students present on the platform encouraged students to

enter and use the platform, to communicate with their teachers and colleagues.

(2-1-4): Technological Challenges:

| N | 11. Do you have an internet connection at home: | percentage | rank |
|---|---|------------|------|
| 1 | Yes. | 73.8% | 1 |
| 2 | No. | 26.2% | 2 |

| N | 12. What kind of device were you using for distance learning? (More than one answer can be chosen) | percentage | rank |
|---|--|------------|------|
| 1 | Personal computer (PC) with a camera. | 0.80% | 6 |
| 2 | Personal computer (PC) without a camera. | 2.60% | 5 |
| 3 | Phone smart. | 33.50% | 1 |
| 4 | Laptop computer. | 30.30% | 2 |
| 5 | Tablet. | 23.50% | 3 |
| 6 | I don't have any of these things. | 9.20% | 4 |

It is evident from the previous results that a large group of students (33.5%) use their smartphones in the learning process, the cause is that it is one of the most available devices.

| N | 13. Did you face difficulty in following your lessons remotely via the Internet? | percentage | rank |
|---|--|------------|------|
| 1 | Yes. | 23.80% | 1 |
| 2 | No. | 76.20% | 2 |

| N | 14. If the answer is yes, specify the type of difficulty? | percentage | rank |
|---|---|------------|------|
| 1 | Internet cost. | 26.50% | 2 |
| 2 | The internet is weak and sometimes choppy. | 48.80% | 1 |
| 3 | I do not have my own device. | 14.60% | 3 |
| 4 | Other factors. | 10% | 4 |

From the previous results, it becomes clear that (48.8%) the biggest challenge in front of them is the

problems of the Internet, and the reason is due to "digital isolation". The majority of villages and remote areas suffer from such a problem, and (14.6%) do not have sophisticated computers because of the level of family income.

(2-1-5: The Ministry's initiatives to ensure the continuity of distance education:

(a). Stream educational platform:

| N | 15. Did you use the virtual classroom platform to follow your lessons during the quarantine period? | percentage | rank |
|---|---|------------|------|
| 1 | Yes. | 76.20% | 1 |
| 2 | No. | 23.80% | 2 |

| N | 16. If the answer is yes, then from your experience identify the most important advantages of the platform that contributed to the continuity of your distance learning and the completion of your research project before the specified date: | percentage | rank |
|---|--|------------|------|
| 1 | Direct meetings between you, your colleagues and experienced teachers in the field according to timetables to be announced. | 53.1% | 1 |
| 2 | Quality of lessons provided. | 10% | 3 |
| 3 | Adaptation of the contents to the study programs. | 31.9% | 2 |
| 4 | The possibility of re-viewing and sailing. | 5% | 4 |

| N | 17. For you, how did this platform contribute to the continuity of your distance learning and your completion of your research project before the specified date: | percentage | rank |
|---|---|------------|------|
| 1 | Important contribution. | 30.40% | 2 |
| 2 | A very important contribution. | 33.50% | 1 |
| 3 | Medium contribution. | 24.20% | 3 |
| 4 | Weak contribution. | 9.20% | 4 |
| 5 | Not contributed anything. | 2.70% | 5 |

| N | 18. Will you continue to use the platform after the quarantine period: | percentage | rank |
|----------|---|-------------------|-------------|
| 1 | Yes. | 71.20% | 1 |
| 2 | No. | 28.80% | 2 |

It is clear from the students' answers to question No. (17) and (18) that the live broadcast platform had a positive effect on the success of the distance learning process, the reason for this could be that the platform feels that the student is in a real classroom. The presence of the teacher as a supportive and auxiliary resource in the learning process contributes to creating a sense of security, as the relationship between the learner and the teacher is the key to the sustainability of successful learning processes.

(b). Edmodo educational platform:

| N | 19. Did you activate your account on the edmodo platform and log into your virtual classroom? | percentage | rank |
|----------|--|-------------------|-------------|
| 1 | Yes | 86.50% | 1 |
| 2 | No. | 13.50% | 2 |

| N | 20. If the answer is yes, then from your experience identify the most important advantages of the platform that contributed to the continuity of your distance learning and your completion of your research project before the specified date: | percentage | rank |
|----------|--|-------------------|-------------|
| 1 | Training in building research projects and defending ideas. | 50% | 1 |
| 2 | Communicate with my colleagues and teachers safely. | 40.4% | 2 |
| 3 | Watch lessons more than once. | 2.7% | 4 |
| 4 | Developing the skill of textual writing and oral communication. | 0.8% | 5 |
| 5 | My father's participation in my educational tasks. | 6.15% | 3 |

| N | 21. For you, how much does the platform contribute to the continuity of receiving lessons remotely: | percentage | rank |
|---|---|------------|------|
| 1 | Important contribution. | 30.40% | 2 |
| 2 | A very important contribution. | 36.92% | 1 |
| 3 | Medium contribution. | 24.20% | 3 |
| 4 | Weak contribution. | 5% | 4 |
| 5 | Not contributed anything. | 3.46% | 5 |

| N | 22. Do you support continuing to use the edmodo educational platform after the quarantine period? | percentage | rank |
|---|---|------------|------|
| 1 | Yes. | 86.5% | 1 |
| 2 | No. | 13.5% | 2 |

Through the students' answers to question No. (21) and (22), the positive attitude of the students towards using the platform and the extent of their interest in it is evident, the reason for this is that the platform contributed to providing the student with a number of research and informational skills necessary for self-learning, developing critical and creative thinking and making them have More control over the educational process and time management. Also, most of the platform's lessons depend mainly on multimedia, such as pictures and videos, which makes it more interactive and fun, and the platform enables parents to follow the class and watch its activities without bothering to go to school and inquire about the sons's academic conditions from the teachers, so that they can be reassured that their sons are walking In the right track.

(c). Egyptian Knowledge Bank (study.ekb digital library)

| N | 23. Have you ever used the Egyptian Knowledge Bank (study.ekb) to carry out your research projects? | percentage | rank |
|---|---|------------|------|
| 1 | Yes, not continuously. | 44.20% | 2 |
| 2 | Yes, constantly. | 7.70% | 3 |
| 3 | No, not once. | 48.10% | 1 |

From the previous results, it becomes clear that (44.2%) of the students use the Egyptian Knowledge Bank, but irregularly, (7.7%) use it constantly, (48.1%) have not used it at all, the cause is that the Egyptian Knowledge Bank was not accepted and popular among students as Distance learning management platforms due to the absence of interactivity, and the absence of any means of direct communication with those in charge of it, so Knowledge Bank users cannot communicate except through an e-mail that our "experience" has proven to be inactive.

(2-2) Teachers 'Opinion Poll about the Distance Learning Experience:

The following table shows the percentage and rank for each of the scale paragraphs of the teachers 'survey on the distance learning experience:

(2-2-1): Challenges for the continuity of distance learning:

| N | 1. In the current situation imposed by quarantine, what difficulties did you face in tracking your student' teaching in their homes? | percentage | rank |
|---|--|------------|------|
| 1 | Mastering the use of technological devices and their applications. | 46.06% | 1 |
| 2 | Follow students through virtual classes. | 15.16% | 3 |
| 3 | The time burden and the lack of sufficient time for distance teaching. | 29.77% | 2 |
| 4 | How to evaluate the performance of students. | 1.10% | 5 |
| 5 | News and communication with parents and guardians | 7.86% | 4 |

It is evident from the previous results that the most difficulties facing teachers are lack of proficiency in the use of technological devices and their applications, reaching (46.06%), the reason due to resistance to change. Some teachers do not have sufficient ability to adapt to the idea of distance education because the experience is new to them and they still have concerns about the use of modern technologies and online learning tools.

| N | 2. In your opinion, what are the advantages that you have found in distance teaching? . | percentage | rank |
|---|--|------------|------|
| 1 | Flexibility in learning, and not depending on place and time. | 46.07% | 1 |
| 2 | Make learning available to all. | 24.15% | 2 |
| 3 | Tracking (all educational processes and tasks for the lesson are saved with the ability to review and amend them). | 14.6% | 3 |
| 4 | Ease of following students through virtual classes. | 10.7% | 4 |
| 5 | The richness and diversity of digital educational resources and content | 4.4% | 5 |

The previous results indicate that a large percentage (46.07%) of teachers believe that the most important advantages of distance learning lies in the flexibility of learning, the reason for this due to the new system contributed to providing educational services to remote areas and spreading education on the largest scale, and it solves the problem of place. Overcrowding in traditional educational classrooms, the problem of limited time, and the problem of teacher scarcity in some schools.

| N | 3. during you are continuing to study remotely, are your enthusiasm and motivation: | Percentage | rank |
|---|---|------------|------|
| 1 | grown exponentially. | 29.21% | 2 |
| 2 | grown. | 33.14% | 1 |
| 3 | reduced. | 22.47% | 3 |
| 4 | Dramatically reduced. | 11.79% | 4 |
| 5 | No thing happened. | 3.37% | 5 |

The above percentages indicate that a large percentage of teachers, ranging between (29.21%-33.14%), have increased their motivation towards teaching remotely, due to that distance teaching contributed to saving the time and effort of the teacher so that the teacher does not need to teach the same educational content. For different groups, it needs to prepare the content once and then share it with different groups.

| N | 4. What is the average length of time you take daily to teach your students remotely? | Percentage | rank |
|----------|--|-------------------|-------------|
| 1 | one more hour/one hour more. | 6.10% | 4 |
| 2 | two more hours vs two hours more. | 59.60% | 1 |
| 3 | More than three hours. | 19.10% | 2 |
| 4 | I do not study remotely. | 15.20% | 3 |

| N | 5. What good practices have you developed that helped you in preparing and accomplishing distance learning tasks (it is possible to choose more than one developed practice) | Percentage | rank |
|----------|---|-------------------|-------------|
| 1 | I try to stick to a schedule I set for myself. | 62.92% | 1 |
| 2 | Established a schedule in cooperation with all learners. | 11.79% | 3 |
| 3 | Commitment to communicate with students on the announced dates. | 25.28% | 2 |

From the teachers' previous answers to question No. (4) and (5) it appears that there is a large group of teachers enthusiastic about this type of education. A measure of challenge, responsibility and discipline; See this as a great opportunity to develop the educational system.

(2-2-2): Communicating with students:

| N | 6. How often do you communicate with your students? | percentage | rank |
|---|---|------------|------|
| 1 | I only communicate with them once. | 12.35% | 3 |
| 2 | I communicate with them once a week. | 29.77% | 2 |
| 3 | Furthermore. | 55.06% | 1 |
| 4 | I did not make any contact. | 2.80% | 4 |

| N | 7. What is the method or means that you used to communicate with students during this period of quarantine? | percentage | rank |
|---|---|------------|------|
| 1 | Distance learning management platforms (stream, edmodo). | 54.49% | 1 |
| 2 | The webpage or channel of the teacher, teacher, or institution. | 20.20% | 3 |
| 3 | Social networks (Facebook, Messenger, Skype, Zoom ... etc.). | 23.60% | 2 |
| 4 | E-mail. | 1.60% | 4 |

The results show that a large group of teachers (54.49%) communicate with students through the official learning management platforms, and the reason lies in the measures taken by the Ministry of Education regarding the activation of the platform, and the obligation for all teachers to upload their work on the platform and activate virtual classes on it. As well as the link of annual reports to the extent of the teacher's activation of the platform as it is part of the nature of his work. Provided that the follow-up is done by the school director and the development officer to document the extent of teachers' response to that, while the performance of the directors and deputy heads of departments is evaluated by the Ministry of Education and the Directorate, with regard to the extent of effective participation of teachers and students through the educational platform, negatively and positively.

(2-2-3): Technological Challenges:

| N | 8. Did you face some difficulties in preparing and implementing distance learning tasks? | percentage | rank |
|---|--|------------|------|
| 1 | Yes. | 24.7% | 2 |
| 2 | No. | 75.30% | 1 |

The results indicate that a small percentage of teachers (24.7%) face difficulties in dealing with this emerging pattern, as it is clear to the researcher from the previous questionnaire results that there is still a group of teachers who are not equipped or trained to deal suddenly with distance education.

(2-2-4): The Ministry's initiatives to ensure the continuity of distance learning:**(a). Stream educational platform:**

| N | 9. Are you satisfied with the educational content provided to students on the Stream platform during the Corona crisis? | percentage | rank |
|---|---|------------|------|
| 1 | Yes. | 56.70% | 1 |
| 2 | No. | 43.30% | 2 |

| N | 10. The educational content provided to students via the Stream covers the various elements of the class: | percentage | rank |
|---|---|------------|------|
| 1 | Yes. | 51.70% | 1 |
| 2 | No. | 48.30% | 2 |

| N | 11. Did you work on broadcasting classes to your students that prepared by you(on your own initiative) during the Corona crisis? | percentage | rank |
|---|--|------------|------|
| 1 | Yes. | 32.60% | 2 |
| 2 | No. | 67.40% | 1 |

From the teachers' answers to question (9), it becomes clear that (56.7%) feel satisfied with the content provided on the stream during the Corona crisis, and as it appears from the answers to question (10) that (51.7%) of them believe that the educational content provided through the platform covers various elements The classroom, while the answers to question (11) indicate that (32.6%) of them worked on their own initiative and recorded live videos and broadcast them on Facebook pages, YouTube, and Office 365.

(b). Edmodo educational platform:

| N | 12. Depending on your experience, where is the strength of this platform. | percentage | rank |
|---|---|------------|------|
| 1 | Ease of creating virtual classes and presenting content through them. | 57.86% | 1 |
| 2 | The freedom to exchange opinions, ideas and questions. | 29.21% | 2 |
| 3 | Ease of navigation and steering. | 5.05% | 4 |
| 4 | Immediate feedback. | 7.86% | 3 |

| N | 13. For you, the platform enabled students to learn from distances : | percentage | rank |
|---|--|------------|------|
| 1 | Excellent. | 27.52% | 2 |
| 2 | very good. | 37.64% | 1 |
| 3 | good. | 24.15% | 3 |
| 4 | Weak. | 7.86% | 4 |
| 5 | Very weak. | 2.8% | 5 |

| N | 14. do you recommend to use this platform after the quarantine period: | percentage | rank |
|---|--|------------|------|
| 1 | Yes. | 56.70% | 1 |
| 2 | No. | 43.30% | 2 |

The previous results show the positive trend of teachers towards using the platform, and perhaps the reason for this

is the ease of creating virtual classes and presenting content through them - as was mentioned in the answer (57.86%) of the sample to question No. (12) - which helps to provide online learning instead of Transferring information online.

(c). Egyptian Knowledge Bank (study.ekb digital library):

| N | 15. From your point of view, do you think that the digital content provided through the Egyptian Knowledge Bank is appropriate to experiment with distance education in the current situation? | percentage | rank |
|---|--|------------|------|
| 1 | Yes. | 73% | 1 |
| 2 | No. | 27% | 2 |

The results indicate that (73%) of teachers believe that the digital content provided through the Egyptian Knowledge Bank is appropriate for the experience of distance education in the current situation, as it includes a large number of videos, articles and research in various international languages, which helps in developing the knowledge and skills that the student needs.

(3-3). Parents' Opinion Poll about Distance Learning Experience:

The following table shows the percentage and rank for each of the scale paragraphs of a parenting survey on the learning experience:

| N | 1. Which of the following tools do you have in the family that your sons use in distance learning? | percentage | rank |
|---|--|------------|------|
| 1 | Personal computer (PC) with a camera. | 2.70% | 5 |
| 2 | Personal computer (PC) without a camera. | 1.20% | 6 |
| 3 | Phone smart. | 32.70% | 1 |
| 4 | Laptop computer. | 31.90% | 2 |
| 5 | Tablet. | 24.20% | 3 |
| 6 | None of the above. | 7.30% | 4 |

The results indicate that the smart phone is one of the most used tools at a rate ranging (32.7%). This can be explained that families with low incomes cannot buy laptops and rely on the use of smartphones to access the Internet, but the problem is that students of these families will not They can use more complex educational programs that require a tablet or computer, and it is difficult for students and siblings to complete their studies on a single mobile phone.

| N | 2. Does the school (principal or teachers) communicate with you to direct the distance learning process? | percentage | rank |
|---|--|------------|------|
| 1 | Always. | 18.10% | 2 |
| 2 | Sometimes. | 71.50% | 1 |
| 3 | Do not communicate. | 10.40% | 3 |

Previous results indicate that (18.1%) are in constant contact with the educational institution, (71.5%) communicate sometimes when necessary, (10.4%) do not communicate with the institution, this indicates that a large percentage of parents contact the institution to follow up on their sons during the learning process From a distance, and is aware of the great role that the family has for the success of the distance education process, in terms of providing a suitable home environment for distance learning, especially in the young age stages.

| N | 3. Which of the following methods do you use to monitor the performance of your sons during the Corona crisis? | percentage | rank |
|---|--|------------|------|
| 1 | Distance learning management platforms (stream, edmodo). | 61.50% | 1 |
| 2 | The teacher's page, website, or channel. | 10.40% | 3 |
| 3 | Social networks (Facebook, Messenger, WhatsApp, SkyB ... etc). | 23.10% | 2 |
| 4 | None of the above. | 5% | 4 |

It is evident that the majority of parents (61.5%) follow the performance of their sons through the distance learning management platform edmodo, which indicates that the ministry's goal of launching the platform has been achieved. In one place, this is happening for the first time in Egypt.

| N | 4. Your sons learn from educational content provided remotely during the Corona crisis: | percentage | rank |
|---|--|-------------------|-------------|
| 1 | Very agree | 16.53% | 3 |
| 2 | Agree | 38.84% | 1 |
| 3 | Disagree | 20% | 2 |
| 4 | Strongly Disagree | 14.61% | 4 |
| 5 | I do not know | 10% | 5 |

| N | 5. You feel satisfied with the educational content provided to your sons through the distance learning administration platforms (edmodo, streaming) during the Corona crisis: | percentage | rank |
|---|--|-------------------|-------------|
| 1 | Completely satisfied. | 16.54% | 2 |
| 2 | Satisfied. | 33.46% | 1 |
| 3 | To some extent (neutral). | 20% | 5 |
| 4 | Not satisfied. | 15.77% | 3 |
| 5 | Absolutely not satisfied. | 14.42% | 4 |

Parents' answers to Question No. (4) and (5) are clear that distance learning has found approval and satisfaction of most parents, and the reason is that the new education system solves the problem of private lessons. It gives the student the advantage of viewing the lessons and re-watching them at any time, which contributes to saving time and traditional study expenses.

| N | 6. Your sons need help from the family while following the educational content on the platform: | percentage | rank |
|---|---|------------|------|
| 1 | Always. | 15.38% | 4 |
| 2 | In most of the time | 24.23% | 1 |
| 3 | Sometimes. | 20.38% | 3 |
| 4 | Rarely. | 10.77% | 5 |
| 5 | Never. | 22.69% | 2 |
| 6 | Not interested. | 6.53% | 6 |

It is evident from the above that (24.23%) of parents think that their sons need help most of the time, (20.38%) need help sometimes, (15.38%) always need help, which indicates that there is a difficulty in understanding the lessons and following the teacher at times. The educational process is an interactive process, as the student does not have sufficient focus to follow lessons online, sometimes the Internet is weak, and sometimes it is completely cut off, and the student is unable to respond to the teacher and ask questions as it is in the classroom.

| N | 7. Take advantage of the guidelines directed by the Ministry of Education to organize the distance education process: | percentage | rank |
|---|---|------------|------|
| 1 | Yes, sure. | 58.84% | 1 |
| 2 | Yes. | 22.30% | 2 |
| 3 | No. | 5.38% | 4 |
| 4 | Certainly not. | 3.07% | 5 |
| 5 | Not interested. | 10.40% | 3 |

From the above, it is clear that (58.84%-22.30%) parents benefit from the guidelines and the efforts made by the Ministry in order to provide the community with a set of videos introducing the mechanism and ways to enter the distance education system; Considering that the success of distance education comes in the first place as a result of the

cooperation and follow-up of parents for their sons at home.

| N | 8. What are the challenges that your sons faced during distance learning? | Percentage | rank |
|----------|--|-------------------|-------------|
| 1 | No internet available. | 17.30% | 2 |
| 2 | Internet cost. | 16.50% | 3 |
| 3 | Internet speed. | 46.90% | 1 |
| 4 | The lack of computers and smart devices. | 7.70% | 5 |
| 5 | Unwillingness to such a style of learning. | 11.50% | 4 |

It is evident from the above that there is a clear disparity in the level of challenges facing students, the researcher explained that the distance learning requires a lot of supplies and equipment to achieve the maximum possible benefit, and its availability varies among students due to social disparity. The results of the study show that the social class with a percentage level and higher is the one who benefits most in terms of its ability to oblige its sons to follow their lessons through electronic platforms, given that most of them enroll in private schools and some government schools in city centers and because of the educational and cultural level of the family and provide the capabilities and appropriate home environment for them.

Thus, In this current study, the results of this paper were in agreement with most of the results of previous studies that were referred to in this research, it is worth noting here that the successes achieved by Egypt in managing the crisis and emergency education remotely are attributed to the Minister of Education, Tarek Shawky, for the rapid progress and advancement achieved by the education system in dealing with the current crisis is nothing but a harvest and a result of the development efforts that he started Minister 2018, When the ministry

began to invest in many learning systems and platforms such as: (electronic exams, learning management platform, knowledge bank, educational communication platform, EDMODO, and virtual classroom tools), as well as developing data governance mechanisms that depend on the identification number of the learner and teacher (the learner code) And the teacher), which is the basis for dealing with these platforms.

Conclusion

That distance learning systems are thus complementary to traditional education and cannot be a substitute for it. The educational institution is not only tasked with transferring knowledge, but in addition to education, it directs, educates, and establishes behavior, and even helps in forming the student's future personality through building social relationships and interacting with others Where the interaction is face to face, and this is what distance education cannot provide, which makes the traditional school the ideal form of the educational process regardless of the development of available technologies for education. On the other hand, distance education offers solutions to the most prominent problems that traditional education is currently facing in Egypt: the problem of classroom density, the problem of private lessons, as it is a necessity and not a luxury, and the need for it is urgent, whether in normal situations or in cases of exceptional circumstances and force majeure that prevent Students and teachers from going to classrooms and classrooms, whether from the Corona virus or any other conditions that lead to disruption of study and prevent students and teachers from going to school as happened, and the country was exposed to climatic conditions due to the heavy rains in 2018; It is

what invites us to adopt a "hybrid" way of education that combines education inside school buildings with distance learning with its technological tools.

Recommendations

- Thinking of the current situation as setting remote education in emergency situations, provided that it is developed and taken advantage of after the crisis, as an inclusive education that supports traditional education.
- Intensifying efforts to develop the digital education system and developing a plan to improve Internet services, empower students with technical skills, and qualify teachers to effectively invest technology in education.
- Paying attention to enhancing the culture of distance learning among parents, and eradicating their digital literacy as an integral part of the educational process, which can be used to provide appropriate support in light of the likelihood of students staying in their homes.

References

- Abdel Hamid, A. (2020). Coronavirus: How does distance education provide solutions to some school problems in Egypt?, BBC Arabic site.,from <https://www.bbc.com/arabic>
- Al-Far, Shahin (2019) The Effectiveness of Interactive Chat Robots to *acquisition and retention* of Mathematical concepts among First Year Preparatory students, The Arab Society for Educational Technology, p: 542-571 <http://search.shamaa.org/FullRecord?ID=246871>
- Al-Shdeifat, M (2020). The reality of employing remote education due to Corona disease in Kasbah Al-Mafraq schools from the

- point of view of school principals in them. Ministry of Education - Jordan The Arab Journal for Scientific Publishing, Nineteenth Edition (2) - 5-2020. <https://www.ajsp.net/volume/>
- Atef, M., (April 9, 2020) The link of the live broadcast platform for the virtual classes search stream.moe.gov.eg and the terms of the research project, Agency News, available at the link: <https://elwekalanews.net/419229/>
 - Center for Strategic Studies (8/4/2020) Coronavirus and distance education, the experience of the Ministry of Education in Jordan, a series of Jordanian index polls, Pulse of the Jordanian Street (17) <http://jcss.org/ShowNewsAr.aspx?NewsId=828>
 - El Badry,H., (2020). 18 new decisions of the Minister of Education regarding end-of-year examinations for all levels, the educational portal, issued on March 26, 2020, available at: <https://www.albawabhnews.com/3953961>
 - Halawa, R; El-amir, N; Yahya, A (2020). Distance learning .. a smart platform for the sustainability of education. Al Bayan UAE magazine is available at: <https://www.albayan.ae>
 - Hamadeh,A (May 27, 2020) A research study sets out 11 recommendations for developing distance education in light of the Corona crisis, 7 day E-magazine, available at the link: <https://www.youm7.com/story/2020/5/27>
 - Hamilton, L. (2020). How COVID-19 Affected the Nation's Schools: New Data Gives Insights for Planning. <https://www.rand.org/>.
 - Kasmi,I., Mazouz, H., Mansouri,A., (2020) The Phenomenon of Distance Learning and Pedagogical Continuity, Training Center for Education Inspectors, Quneisra Region Directorate, Morocco from:<https://www.minhaj-jadid.com>
 - Miqdadi,M (2020). Perceptions of high school students in public schools in Jordan of using distance education in light of the Corona crisis and its developments, The Arab Journal for Scientific Publishing, the nineteenth edition 2-5-2020, <https://www.ajsp.net/volume/>

- Nilson, B. (2020). The Huge Difference Between Online Teaching and Emergency Remote Instruction. [https://www. Extreme networks.com/](https://www.Extremenetworks.com/).
- Saudi Ministry of Education (2020). Efforts of the Ministry of Education in avoiding the effects of the Covid-19 pandemic.
- Shahin. Y,(2020). Technological acceptance of the Internet of things (IOT) In Egyptian schools, International Journal of Instructional Technology and Educational Studies, 3, Volume 1, Issue 1, Winter 2020, Page 6-10.from: https://journals.ekb.eg/article_83782.html
- Shawky,T,. (2020) Egypt: 22 million students communicate with their teachers through the “edmodo” electronic platform Cairo - My Life Today is a daily, comprehensive electronic, <http://www.hayatty2day.com/?p=34437>
- Statistics Year Book 2019-2020 - Ministry of Education, available at the link: http://emis.gov.eg/Site%20Content/book/019-020/main_book2020.html
- Subedi.s, Nayaju.S, Shah.S, Shah.J, (2020). Impact of E-learning during COVID-19 Pandemic among Nursing Students and Teachers of Nepal, International Journal of Science and Healthcare Research (IJSHR) <https://www.academia.edu/43808376>
- The Egyptian Center for Strategic Studies (ECSS) (2020) Pre-university education system An opinion in the news (Opinion in a crisis) - Issue 5: (Special issue series of our daily publications 03/31/2020 [http://ecss.org.eg/cms/NewsUploads/Pdf/2020_3_31-8_4_25education%20final%20\(2020.03.31\).pdf](http://ecss.org.eg/cms/NewsUploads/Pdf/2020_3_31-8_4_25education%20final%20(2020.03.31).pdf)
- The Emirates Center for Strategic Studies and Research (ECSSR) (10 May 2020) UAE Today: Evaluating the experience of "distance education" is an essential necessity, "Hourly News" bulletin is available at: https://www.ecssr.ae/reports_analysis/
- The Jordanian Ministry of Education (09-04-2020) An important study on distance education in the Kingdom, Alwakeel News. from:<https://s.alwakeelnews.com/437254>

- Turner, C. & Adame, D. (2020). There's a huge disparity: what teaching looks like during coronavirus. <https://www.npr.org/>.
- Winter, L. (2020). I'm a teacher in Italian quarantine, and e-learning is no substitute for the real thing. <https://www.theguardian.com>
