

Transition to Online Education in Palestinian kindergartens During the Coronavirus (COVID-19) Pandemic: Al - Ameen Kindergarten as a Case Study

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Abstract The situation in public and private education in Palestine changed in 5 march from 2020, when the first case of HIV infection was detected Human Immunization COVID-19, and rose to (14, 875) local case and more than The Coronavirus Cases all over the word was 19,713,999 cases worldwide, by August, 11, 2020. Palestine became one of 188 countries around the world that suspended the education process. This study presents a proposal for the transition process to online education in Palestinian kindergartens during the coronavirus (COVID-19), as well studies the various available extant literature of platforms and indicates those that were applied in other countries around the world , such as the online portal, TV Schools, Microsoft teams for government schools, and alternatives like Zoom, Slack, Google meet, the Edu page that can be used for online education and direct communication and presents examples of its usage. The researchers conducted a case study on (200) students in private Al - Ameen kindergarten in Salfeet governorate / Palestine in which Google Meet platform for online education was implemented that shows the usage statistics generated by the system for two weeks of the online education. Initial results confirmed the successful transition to an online education model, the experience gained can be utilized in the future and researches can be beneficial for other countries that have not yet so far found methods to transition. The lessons learned from the 2020 pandemic (COVID - 2019) will impose a set of laws, regulations, platforms and new solutions in all fields and lifestyles including education in the future when countries, governments and people are more prepared than they are today. Thus, this study is only a modest attempt by researchers in this field.

Keywords: *online education, distance learning, virtual education, traditional kindergarten education, corona pandemic, COVID-19, Palestine*

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1. Introduction

The Ministry of Education and Higher Education in Palestine oversees public education in public schools, UNRWA schools and private schools. The Ministry also supervises higher education in Palestinian colleges and universities. The stages of the educational ladder in Palestine are: **the first stage: kindergarten** (pre-school), it includes children from 4 years - 5 years and 5 months; **the second stage: general education**, which includes basic education (compulsory) (first basic to tenth basic), this stage begins with the student entering the first basic grade, at the age of 5 years and 6 months and lasts for ten years, that is, until the end of the tenth basic grade (compulsory stage); **the third stage: secondary education**, includes: academic secondary education, it includes the two branches: scientific and literary (humanities) for two years,

vocational secondary education for two years, it is divided into Five branches: Industrial, Commercial, Agricultural, Nursing and Hotel [1]. The country's school years are 12 years, and for preschool nearly two years.

The main educational methodologies in Palestine are: **first; classical education in the classroom**, where the teacher uses books and blackboards as an educational method, it is the only methodology used in public schools in general; **second; modern education in the classroom**, where the classroom is equipped with whiteboards and projectors or audio visual equipment and digital panels, this type is largely applied in private schools; **third; Online education**, where information and communication technologies are used to help in development and knowledge acquisition from different websites, it uses the Internet, audio-visual, text and software to create a learning environment, this type is applied in higher education institutions. The education system in Palestine is based on traditional and modern classroom education and requires the pupils to attend the

school classes 5 days (Sunday, Monday, Tuesday, Wednesday, and Thursday) weekly, while Friday and Saturday are formal holidays [2].

According to [3], there are several types of online learning: (1) Knowledge base: it is a set of lessons that are posted on the website and have general learning instructions that a student should follow, without available support; (2) Online Support: it is a modified version of the first type, where support is available, therefore, there is a discussion board, web forum, or other contact method available to obtain support on some topics; (3) asynchronous training: this type is the training where lessons are not conducted in real time, but students are provided with content regularly, the coaches are appointed and supported via email or other communication platforms; (4) Synchronous training, the synchronous training takes place in real time with a direct trainer and an optional supervisor. There is a pre-set time to log in to the online learning environment and participants can communicate directly with the teacher and other group members; (5) hybrid training: this type is a combination of online and personal interaction.

In the year 2020, Palestine has (1808) kindergartens with (146.838) students countrywide, distributed between the public and private sectors [4]. Therefore, in a situation where the students are not allowed to go to school, the alternative is to move from traditional to online education. In this case the essential parts are the internet coverage, availability of computers or smartphones in the population. But in spite of the fact that more than half of Palestinian families possess of a computer (desktop computer, laptop, tablet, and iPad), and have internet access at home, and over 60% of families in Palestine use computers according to results of the census 2017 [1,5]. To this day, the coronavirus cases all over the world was 19,713,999, deaths, 727,357, and recovered: 12,655,329 [6], in State of Palestine, the coronavirus cases are 13,928, deaths, 96, and 7,706 were recovered.

In the study we will discuss the case of Al - Ameen private kindergarten that has transformed the education process from traditional to online in 2 weeks and discuss the results of the first and second week of online education. Two platforms Edu Page and G suite in the education process are utilized.

2. Theoretical Background

WHO declared the coronavirus disease 2019 (COVID-19) outbreak, caused by severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), to be a pandemic on March 12, 2020. On March 18, 2020, the UN Educational, Scientific and Cultural Organization (UNESCO) estimated that (107) countries all over the world had implemented national school closures due to COVID-19, affecting 862 million students, roughly half the global student population, this situation had rapidly escalated from 29 countries with national school closures a week before [7]. School closures are based on evidence and assumptions from influenza outbreaks that they reduce social contacts between students and therefore interrupt the transmission [8]. On 12 January 2020, the World Health Organization (WHO) confirmed that a novel coronavirus was the cause of a respiratory illness in a cluster of people in Wuhan City, Hubei Province,

China, which was reported to the WHO on 31 December 2019 [9]. The case fatality ratio for COVID-19 has been much lower than SARS of 2003, but the transmission has been significantly greater, with a significant total death toll.

School closures can impact number of deaths during an outbreak either positively, through minimizing transmission and the number of cases, or negatively, through reductions in the health-care workforce available to care for those who are sick [10]. Studies of UK children and young people report that the mean number of daily social contacts during school holidays are approximately half that of school term days [11], however, contacts continue and mixing between children and adults and between children at different schools actually increases during holidays and school closures.

The evidence for the effectiveness of school closures and other school social distancing measures comes almost entirely from influenza outbreaks, for which transmission of the virus tends to be driven by children. It is unclear whether school measures are effective in coronavirus outbreaks—for example, due to severe acute respiratory syndrome (SARS), or Middle East respiratory syndrome (MERS) and, most specifically, COVID-19, for which transmission dynamics appear to be different [12].

The situation in general education in Palestine has changed in the spring semester of 2020, when the first cases of coronavirus COVID-19 infection was detected at a hotel in Bethlehem area, where a group of Greek tourists had visited the hotel in late February, with two later diagnosed with the virus [13]. A virus has infected 1,504,971 persons worldwide, by April 8 2020, as reported by Johns Hopkins University of medicine, Online Map. [14]. Researchers at Imperial College in London, estimate the global the impact in the year 2020 ranges between 20 million deaths with effective non-pharmaceutical interventions in place, and 40 million deaths, without such interventions (Patrick GT Walker 2020). The learning process in Palestine was suspended for all stages in the 5 of March by the recommendation of the Ministry of Education and higher education in addition to the official statement of the Head of State and Prime Minister, which was later has prolonged to April 5, On April 5 the country has announced a state of emergency for one month with many restrictions. Palestine became one of the 188 countries in the world that has shut down all schools and universities or localized them in some cases to avoid the spread of the virus, while affecting (1.576) million children and youth affection the (91.3%) of the world's student population by April.04.2020 According to as shown in Figure 1.

2.1. State of Palestine: COVID -19

The COVID-19 pandemic was confirmed to have spread to the West Bank on 5 March 2020, beginning the COVID-19 pandemic in Palestine [2]. The Palestinian health ministry said the cases had first been detected at a hotel in the Bethlehem area, where a group of Greek tourists had visited the hotel in late February, with two later diagnosed with the virus [13]. The first two cases in Gaza City, Gaza were diagnosed on 21 March and there are 3 active cases and one death as of 19 July, 2020, The Hebron district is the epicenter, with 62% of reported victims, numbering 5,300 active cases as July 16, 48 persons having died [2].

Global monitoring of School closures caused by COVID – 19

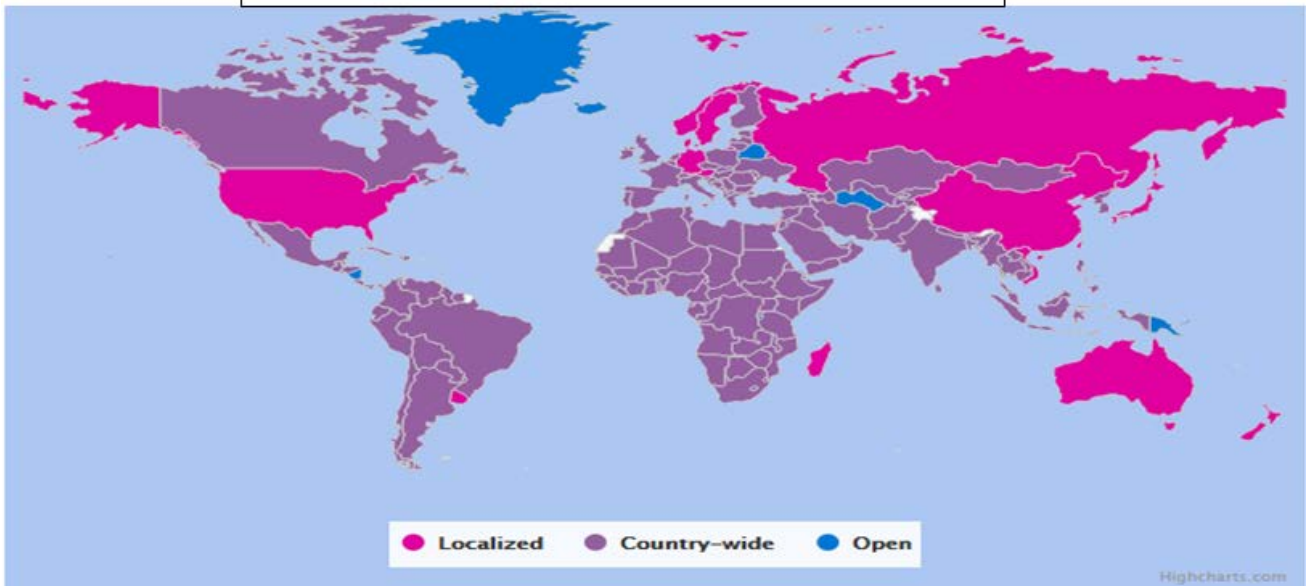


Figure 1. Countries that have closed or localized the schools in the world (UNESCO Report)

Source: Figures correspond to number of learners enrolled at pre-primary, primary, lower-secondary, and upper-secondary levels of education [ISCED levels 0 to 3], as well as at tertiary education levels [ISCED levels 5 to 8]. Enrolment figures based on latest UNESCO Institute for Statistics data. <https://en.unesco.org/covid19/educationresponse>

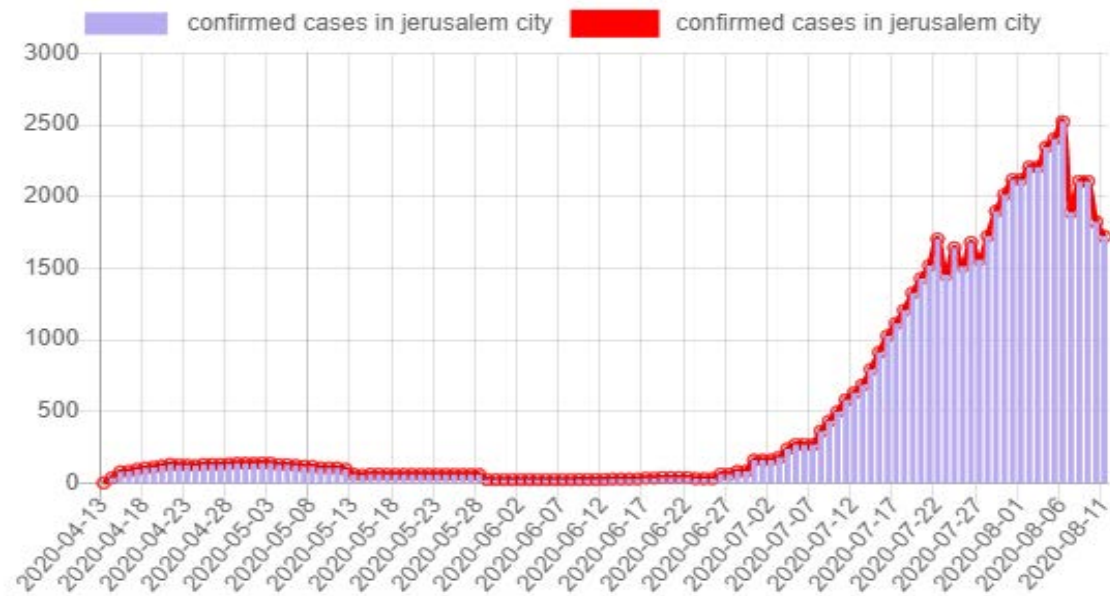


Figure 2. Coronavirus in Palestine (Source: Palestinian Central Bureau of Statistics (PCBS): Coronavirus - COVID - 19 Surveillance System www.pcbs.gov.ps)

The education system in Palestine relies on traditional and modern classroom education and requires students to attend school classes every day (five days a week). The situation in public education in Palestine changed in 5 March from 2020, when the first cases were revealed infection with HIV COVID-19 in west bank Palestine (Figure 2). The virus has infected 1,504,971 people worldwide, by April 8, 2020, among them there are (3035) cases in Palestine. According to Johns Hopkins University of Medicine [14] and researchers at imperial college in London estimate the global impact in 2020 to be between 20 million deaths, with effective non-pharmaceutical interventions, and 40 million deaths, without such interventions (Patrick GT Walker 2020).

2.2. ICTs Sector in Palestine

The information technology and telecommunications (ITC) sector witnessed a qualitative shift at the beginning of 2018, with the launch of 3G services, and enabling Al - Wataniya Mobile to provide its services in Gaza Strip. The data of the ministry of ITC indicates that there is a steady growth in the infrastructure of the fixed communications network, accompanied by an increase in the use of families and institutions for this network and related services, especially the internet service, as the number of the main phone lines (home, commercial, governmental) reached in Palestine at the end of the year 2017 a total of 472,292 lines, compared to 360,402 lines at

the end of 2010, an increase of 31%, while the prevalence of fixed phone per 100 population reached 10.5 fixed phone lines at the end of 2017 compared to 9.4 fixed phone lines at the end of 2010 [5].

The data also indicated that mobile subscriptions in Palestine have increased by the end of 2017 to 3,997,206 subscribers, compared to 2,603,582 subscribers at the end of the year 2010, an increase of 53.5%, while the mobile penetration rate per 100 of the population reached 83.6 % mobile phones at the end of 2017 compared to 64.3 % mobile phones at the end of 2010, The Ministry of Communications and Information Technology records also indicated that there are 18 companies with WI FI services, 5 companies for Voice over Internet Protocol Services (VOIPS), 9, Broad Band Services (BBS) companies, 31, Broad Band Access (BBA) companies, and 32, companies to provide value-added services. As for the number of companies registered to import telecommunications equipment, it reached 69 companies in 2017 [5].

According to ADSL High Speed Internet Subscribers, The total number of ADSL internet subscribers in Palestine increased to 357,071 subscribers at the end of 2017 compared to 119,488 subscribers at the end of 2010, an increase of 198.8%, and the average internet speed reached 8.58 Mbps at the end of 2017 compared to 0.5 Mbps at the end of 2010. Moreover, 1.7 One million smart phones owned by Palestinian families, in the same context, the data of the General Census of Population, Housing and Establishments for 2017 showed that 96.6% of families in Palestine have a mobile phone, 97.2% in the West Bank and 95.7% in Gaza Strip, and the results also showed that the percentage of households in Palestine owning a smart mobile phone amounted to 84.2%, 89.8% in the West Bank and 75.5% in Gaza Strip [5].

As for the family's possession of a computer (desktop computer, laptop, tablet, and iPad), the results of the 2017 census showed that 43.1% of households in Palestine have a computer with 48.9% in the West Bank and 34.0% in Gaza Strip. While the percentage of families in Palestine whose members use computers is 61.4%, by 62.0% in the West Bank, compared to 60.4% in Gaza Strip. More than half of Palestinian families have internet access at home, and the 2017 census data showed that 51.7% of families in Palestine have internet access in 2017, 60.6% in the West Bank, and 38.0% in Gaza Strip. In 2018, the percent of Palestinian households with a computer (desktop computer, laptop, iPad or tablet) is (36.9 %), the percentage of households that have internet service at home is (64.5%), the percent of households with one or more mobile phone lines households with one or more mobile phone lines is (96.4%), the percent of individuals (18 years and over) who use computers is (85.3%), the percentage of individuals (18 years and over) who use computers is (64.4%). Previous data (2010 - 2014 - 2018) every 4 year, indicates a high percentage of Palestinian families who have access to the Internet and have personal computers. Of course, these figures have increased significantly during the years 2019/2020. However, only (18%) of Internet use for learning and teaching purposes in 2014 [5].

3. Related Works

In the direction of education, the related studies in the literature shows the need for countries readiness in the pandemic cases [3]. In the direction of education, the related studies in the literature shows the need for countries readiness in the pandemic cases [3]. Although, children are found to be protected from severe or deadly critical infections, they can become a sources for the epidemic to spread, this is the main reason for the closure of schools all over the world [15]. [16] stated that in the case that adequate precautions are not taken or minimized, the path of the epidemic may show a rapid change in the negative direction, and therefore social isolation must be applied. A study conducted by [17], indicates that pollution due to contact with the infected person considered a main reason of the spread of coronavirus. In addition, a study by [18], stated that during a renewable influenza pandemic, community mitigation procedures , as social distancing can slow down virus transmission in schools and surrounding community.

To date, research on practices to promote social distancing in primary and secondary schools has focused on prolonged school closure, with little attempt to put a durable solutions in such cases [18]. The COVID-19 pandemic has a major impact on human life all over the world and has a profound effects on various sectors including of course education sector [7].

According to [7], recognized that the outbreak of the Corona virus had affected the education sector , nearly 300 million students boycott their school activities around the world , and this threaten their future educational rights, also after mid-march of 2020, 13 countries closed schools all over the world in an attempt to prevent the spread of the virus. Some countries conducted learning activities that were previously class-to-face manner turned into an online learning system, while many other countries stop education completely like Palestine as it is not prepared for this cases.

The concept of social and physical distance requires everyone to stay at home so that the virus does not spread, thus, teachers and students are expected to stay at home and continue to perform their duties and responsibilities, in this situation, creative and loyal teachers are required to maintain teaching to keep students informed of appropriate teaching and teaching even with their modest, this is what happened in Palestine during the pandemic through the use of some social media app and other applications, and TV, teachers continue to perform teaching assignments through online interaction with students, this interaction is by introducing explained materials, home works, and reviewing the learning process.

Relevant literature indicates the need for countries and societies to be prepared for epidemic situations in the field of education, in spite of the fact that kids are protected from severe or deadly infections, but they can become a source of prevalence, this was the main reason to schools' closers worldwide [15,16], they also mentioned that in the case that sufficient precautions are not taken, or precautions are reduced, the path of the pandemic may show a very fast change in the negative direction , so the

social isolation have to be applied. [19] discussed the opportunities to close the schools during the pandemic influenza to stop the spreading, and duration of possible lockdowns, and called for more future researches.

[20] worked on the topic of school and its management's readiness during a pandemic that included the re-arrangement of classes, and reduce daily lessons, limiting group works movement of students in class, and creating opportunities for distance learning for missing days, but not the weeks or months as it is happening in 2020.

[21], have proposed that distance learning can be supported by technologies such as Internet, phone, radio, TV or phone messaging, or e - mail communication during the Flu Crisis. The interactive video conferencing system design was proposed and implemented in elementary schools in Greece, it was found that IVC plays a significant role in supporting distance collaborative synchronous learning activities [22], and stated that online education is new in schools, and can be considered for enhancing traditional schools and home-schooling. [23] has made a case study on collaborative environment for distance teaching and learning and reviewed existing platforms, also [24] has made a project enabling and facilitating collaborative teaching in information systems and found that virtual environment should be suitable for other courses as well.

Another studies was done by [25,26] on a case of English language teaching and learning using virtual distance learning environment, the result found that virtual environments permit students to create a world that including anything they can dream up, as well interaction, simulation, and collaboration enable learning in the interactive environment.

[27], stated that prolonged school closures and confinement at home might have the negative influences on kids mental and physical health. The psychological effect of quarantine is wide-ranging, substantial and can be long lasting [12]. Several studies have shown that in spite of the fact that there are some instances of having a plan of utilizing the distance/online learning during the pandemic, but they are mainly focused on small cases and not a global crisis as it is happening in COVID-19 pandemic of 2020 [10]. Countries with limited technologies face problems in school and not ready to fully implement online education across the country [28], and results of different studies shows that the virtual teaching environments can be successfully used in school or higher education in case of having appropriate technical environment and support. Basilaia G, et al. [29] stated that the situation with general education especially in the case of schools is different form higher education institutions, school students have a daily fixed schedule of classes, they also mostly remain in their classrooms and different subject, and teachers enter a class on each hour.

In many countries public schools have entered a pilot project to have the central electronic portal "e- School, where the grades can be entered by teachers in the database from the school system [29]. One alternative for the school management digital system is aSc Edupage, the system that is used in 173 countries, at 150 000 schools [29], the system is cloud-based unity of web portal and mobile application, and has most of the functions that are

suitable a general education process management at schools with the basic free functionality. Further, the system has the functionality of timetable automation, curriculum, and attendance control, homework assigning, grading and messaging features, and parents can be part of the process where they can get the information about grades and results, attendance and communicate with teachers through the system (Edupage. 2020).

This system also has a large list of motivating functions like: mobile application, timetable, powerful automatic generator, substitution, share timetable and substitution, full webpage, class register, teaching plans, lesson preparations, powerful e-learning tool, [29], interactive lessons, results, grades, attendance tracking, absence notes, access control, payments, school canteen software, homework, competency-based evaluation, track students' progress, behavior and notices, certificates generating, report designer, calendar, room or event booking, registration, parent-teacher meetings, admissions, organize surveys and collect results , achievements and awards Geostat [30].

4. Method

To Transmit to online education, we used Google's G Suite for education to make an addition to the Al - Ameen kindergarten management system for video conferencing, in the process of transition to the online experience of the team, when replacing the traditional teaching form with the online, distance education systems at Al-Quds Open University were utilized as one of the pioneers in this field for a long time. It is understood that the educational institution that uses the G Suite for education, can use the platforms and available tools for the educational process via Internet as an addition.

In the beginnings of the Corona pandemic specifically in 3 march, Google has announced that it is widening the Hangouts Meet premium features to all G Suite customers [31]. Besides the standard features, Google has made changes to the Hangouts Meet to make it closer for remote learning and more robust for the school implementation [31]: Hangouts Meet improvements for remote learning (March). Important changes that have occurred were: only calendar owners and meeting creators can mute or remove other participants in a meeting; meeting participants will not be able to re-join nicknamed meetings once the final participant has left [31].

Al - Ameen kindergarten includes 10 classrooms, each of the kindergarten classes is assigned a number (e.g. C1, C2... C10) as well as for teachers (e.g. T1, T2... T10). The timetable for the students will not change too much from the existing one that they had before pandemic started, and restrict to mathematics, science, languages, and religion. Additionally, the structure of the lessons had to remain as before - meaning that the students stay in classes and different subject teachers arrive at a class for a designated subject. To maintain the structure an e - mail account was created for each class (Class numbers are created for each available class at the term). A separate room was created for teachers to meet between classes and discuss the actual topics as they did in real-life before (Table 1).

Table 1. E - mail accounts and virtual classrooms links

Class Name	Class Teacher	E - Mail	Virtual class link
Calss1 (C1)	Teacher 1(T1)	C1@alameenkindergarten.edu.pa	http://meet.google.com/roomc1
Calss1 (C2)	Teacher 2(T2)	C2@alameenkindergarten.edu.pa	http://meet.google.com/roomc2
Calss1 (C3)	Teacher 3(T3)	C3@alameenkindergarten.edu.pa	http://meet.google.com/roomc3
Calss1 (C4)	Teacher 4(T4)	C4@alameenkindergarten.edu.pa	http://meet.google.com/roomc4
Calss1 (C5)	Teacher 5(T5)	C5@alameenkindergarten.edu.pa	http://meet.google.com/roomc5
Calss1 (C6)	Teacher 6(T6)	C6@alameenkindergarten.edu.pa	http://meet.google.com/roomc6
Calss1 (C7)	Teacher 7(T7)	C7@alameenkindergarten.edu.pa	http://meet.google.com/roomc7
Calss1 (C8)	Teacher 8(T8)	C8@alameenkindergarten.edu.pa	http://meet.google.com/roomc8
Calss1 (C9)	Teacher 9(T9)	C9@alameenkindergarten.edu.pa	http://meet.google.com/roomc9
Calss1 (C10)	Teacher10(T10)	C10@alameenkindergarten.edu.pa	http://meet.google.com/roomc10
Teachers lounge		lounge@al-ameen kindergarten .edu.pa	http://meet.google.com/loungelink

Table 2. Online teaching assessment example for the 1st. week

Class Name	Subject	Teacher	No.of attendance ^(*)	Technical	Teaching Process
C5	Arabic language	T1	8 (40%)	3	3
	Math.	T5	7 (35%)	1	2
	Science	T4	9 (45%)	2	1
	Religion	T7	12 (50%)	2	3

*The maximum number of students in the classroom is 20 students

Table 3. Online teaching assessment example for the 2nd. Week

Class Name	Subject	Teacher	No.of attendance	Technical issue	Teaching Process
C5	Arabic language	T1	16 (80%)	3	4
	Math.	T5	15 (75%)	3	2
	Science	T4	13(65%)	2	2
	Religion	T7	14(70%)	3	3

In addition, an online form was built to do daily evaluation of the online learning process and analyze how successful was the transmission to online learning in Al - Ameen kindergarten. The form had to be filled by the teacher at the end of each class, where besides the writing the number attendees , the technical issues of the class meeting had to be assessed where the quality of video/voice/presentation is estimated for 4 points (4 - excellent, 3 - good, 2 - bad , 1 - fail), the process of the teaching also had to be evaluated where the student’s behavior is evaluated through online classes, namely the extent of their commitment to attend and interact. [Table 2](#), [Table 3](#), presents an online teaching assessment, C5 as an example for the first and second week.

The results of the first week evaluation indicated that the number of attendees was average, and the results of evaluating technical issues and the teaching process

ranged from good to failure, especially in mathematics and science.

Results for the second week indicates an increase in attendance, and a significant improvement in technical issues and the teaching process.

To allocate a lasting link to the classroom, the repetitive daily "google" calendar event was created for a duration of 6 hours lasted for 1 months ([Figure 3](#) & [Figure 4](#)). This method ensures that the lasting link is assigned to the event that in the case of this study is the classroom link. Accordingly, a structured virtual environment was created, where teachers can enter the classrooms at their designated timetable as if they were doing that in the normal position. Each generated classroom link was sent to the parent/student via an internal learning management system, in such a structure, the student has to use one link to enter the virtual class and wait for a teacher and other students to join.

Time	Sunday	Monday	Tuesday	Wednesday	Thursday
2.00	Class (C5)	Class (C5)	Class (C5)	Class (C5)	Class (C5)
1.00	10.00 am - 1.00 pm	10.00 am - 1.00 pm	10.00 am - 1.00 pm	10.00 am - 1.00 pm	10.00 am - 1.00 pm
12.00					
11.00					
10.00					

Figure 3. Google Calendar events for the 1st. week of online learning

Time	Sunday	Monday	Tuesday	Wednesday	Thursday
2.00	Class (C5)	Class (C5)	Class (C5)	Class (C5)	Class (C5)
1.00	10.00 am - 1.00 pm	10.00 am - 1.00 pm	10.00 am - 1.00 pm	10.00 am - 1.00 pm	10.00 am - 1.00 pm
12.00					
11.00					
10.00					

Figure 4. Google Calendar events for the 2nd. Week of online learning

5. Results and Discussion

During those two weeks of trying to teach online at Al-Amin private kindergarten which has 200 male and female students, and educational staff of 10 female teachers, where online learning was introduced 10 virtual classrooms and a virtual teacher's lounge were created using the above described form in Table 1. The 10 female teachers were constantly trained online in using the Google Hangouts Meet tools and get familiar with the created form shortly before that.

The classroom links were sent to male and female students and their parents who have access to the Internet (85 %) of them through Edu Page system. The list was shared between the teachers, so that each could join the class according to the available schedule. The Google Meet quality instrument was utilized to extract more statistics of the meetings from the system's admin panel for the period of the first and second week of the online education. Total communication device use was calculated based on the total number of students' connections and separately by their unique names as illustrated in Table 4.

Table 4. Device/platform / operating systems of students' usage for 1st & 2nd. Week of on line education period

Used platform type	Web/PC/Laptop	Mobile/Tablet	iOS (iPhone OS)	Android System
By students' unique names	47.15%	45.12%	23.7%	15.45%
By total connections number	43.16%	52.13%	29.23%	18.78%

Desktop screen sharing was intensively utilized by teachers for the presentation of materials in a total of 50 hours of screen sharing for 2 week of lessons. Also, the total time of 30 hours of video has been broadcasted, which is on average 9 hours of video per class and 8 hours of audio stream have been transmitted resulting in 3.75 hours per class. About 4 hours total time was spent without video/audio transmission that can be a waiting time until the lesson is started and break times.

In normal times the length of a lesson was 45 minutes an average of five servings per day from 9 am -1 p.m. with a half hour as break time. When online teaching has started, class time has been reduced to thirty minutes to avoid long connection of children to the computer. In some cases, teachers are allowed to add ten minutes if there is a technical problem or assign students to a specific

task, and give them a greater break to eat, to learn through play, chatting together, in addition to time for entertainment. Also, the number of daily lessons was reduced from five to four, as it was restricted to mathematics, science and languages and religion.

Attendance on the online virtual classes in the first week was low, and some the lessons have failed or been canceled for internal related to kindergarten and teachers themselves, and external relating to students and their families. Also, very few female teachers encountered technical problems in the first week, and the appeared problems were connected to the personal computer video/voice configuration or misuse of the functions due to the lack of adequate training time for online education.

Lessons were taken and learned from the issues faced the process in the first week and processed, in the second week, the number of attendees increased and technical problems decreased significantly, but this transition process cannot be described as quite successful, it can be said that it is satisfactory, very difficult attempt as being the first time and in exceptional circumstances

6. Conclusion and Recommendations

Based on the first 2 week statistics of the online teaching process at Al - Ameen private kindergarten in Salfet governorate / Palestine, we can conclude that transition from traditional to online education systems at kindergartens may be successful to some extent. The system and the skills kindergartens' teachers, and administration and parents that were gained, can be utilized in the post pandemic period. Teachers' have realized the online learning in a novel manner, have adapted the tasks to the new format of the lessons that may will be positively reflected on their qualification and their experience.

Extra hours will be utilized for the individually checking the functions, feedback which is one of the ways to increase efficiency in the group teaching, the students also will work more autonomously which is the advantage for gaining new skills. The lessons learned from the pandemic of 2020 will impose a set of new laws, regulations, platforms and solutions for future cases in all areas, and governments, countries and societies will be more prepared than they are today, the world as a whole will be different from what it was before the Corona pandemic.

The current study is significant for the present and future because it presents a case of a state that has utilized

the available tools, and encounter extremely difficult economic conditions and separate geographical areas due to the occupation to transmit the traditional kindergartens' lessons to the online education during the (COVID- 19) pandemic. Thus, online learning needs to be re-arrange the exams and home works and training teachers, families and students in anticipation of such difficult circumstances, which are not yet known when it will end. Accomplishing these tasks will require more time, effort and additional support from all public and private sectors, specifically the ministry of education.

The problems that emerge in the transition process to education via the Internet are for example the grading, plagiarism and cheating, so new technologies have to be considered to eliminate such phenomena. Thus, the quality of online learning needs further studies and research in the future especially in Palestine, which is still witnessing an increase in the number of people infected with the virus and the education sector has completely stopped. The results of the first and second weeks of online teaching process can be beneficial and important to be compared and measured for the coming weeks and the semester as a whole.

The statistics that are given in the paper are measured for the first week of the online teaching process are important to be compared to the other weeks and total semester. Also, if the information on grades can be available it can be compared to previous face-to-face classes and next year classes to get the comparative results. The teaching methodologies have to be studied and improved, including the available tools and platforms. We suggest that the google meet system to be integrated to the google classroom platform, or the separate platform needs to be created for education purposes that might include the laboratory practice simulators for schools in STEM courses. When changing to online education, the country needs to estimate how successful the process for the whole country or the world was. As our paper covers the one private school, other schools need to be assessed to get the total results for the spring 2020 semester.

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