1. Introduction

Gaza Strip is one of the most densely populated areas in the world, with a population of approximately 2 million people, while its area does not exceed 360Km². Gaza Strip is constantly exposed to military conflicts in addition to many crises and restrictions imposed by Israeli authorities like siege and closure of the crossings.

During the previous six years, Gaza Strip was subjected to several repeated armed conflicts between Israeli army and armed Palestinian factions, the longest of was the 2014 war that spanned fifty-one days. This war left tremendous damage and great disruption to various sectors of life, the most important of which is the educational sector that was directly affected as the Israeli army destroyed schools, universities and various educational institutions buildings, which led to the deterioration of the educational environment in Gaza Strip.

In the early of 2020, the whole world, including Gaza Strip, are witnessing a major health crisis as a result of the spread of the (Covid-19 virus) which known as Corona, where the world Health Organization announced that the new Corona virus has become a rapidly spreading global epidemic around the world.

After confirming that a number of citizens in the city of Bethlehem were infected with this virus, the President of the Palestinian National Authority declare the state of emergency on 5/3/2020 of that includes all governorates of the country, including Gaza Strip, for a full month from the date of the announcement, this announcement included the suspension of the educational process In Gaza Strip until the end of March as of this writing.

Education during emergencies is a basic human right and necessary for all children and individuals around the world, quality education contributes directly to the social, economic and political stability of societies, in addition to its role in achieving sustainable development.

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1. AlJazeera.net
2. site.moh.ps
Education in emergencies maintains dignity and preserves life as education in emergencies includes educational opportunities for all ages. UNESCO defines education in emergencies as a human and necessary right of all individuals, which is urgent for tens of millions of children and youth affected in emergencies.

Societies place education at the top of their priorities during emergencies and the crises they are exposed to. The Palestinian people in particular are exposed to many different crises and disasters, both natural and manmade; those hinder the educational process and significantly affect its continuation.

Therefore, those people with experiences and expertise strive to develop various plans of emergencies that Gaza Strip is exposed to, to avoid the disruption of the educational process during emergencies, this paper discusses the different roles played by public education institutions to ensure continuity of education during emergencies in Gaza Strip, in addition to the explanation some of the proposed solutions and means to guarantee the educational process.

2. Research methodology

In this paper, the researchers relied on

- Focus groups
- Interviews (unstructured)
- International reports and studies

3. Goals

The overall goal

The study aims to clarify the role of educational institutions in ensuring continuity of education in various emergency situations.

Special goals


B- Putting in place some technological and administrative suggestions to ensure the education continuity process in Gaza Strip during the emergency.

4. The importance of the study

The importance of the study lies in the necessity of continuing the educational process during emergency events in Gaza Strip, as Gaza Strip is considered as one of the most vulnerable areas during emergency events, whether natural or man-made like heavy rains or armed conflicts.
The number of students in government schools in Gaza Strip is 277,153 students receive their educational in 414 schools distributed in Gaza Strip, while the number of teachers is 11,062.

Emergency events cause transformation in the educational process to inappropriate environment and circumstances for its continuation and sometimes cause a complete halt to the educational process, in addition to causing psychological and physical harm to students whom receive the educational service and teachers whom are service providers.

This research paper aims to clarify the role of governmental educational institutions in working to continue the educational process during the emergency and prevent its stopping, in addition to clarifying some possible solutions and proposals to help educational institutions continue their work.

5. Study terms

- Case of emergency

“The President of the National Authority may declare a state of emergency by a decree when there is a threat to national security caused by war, invasion, armed insurrection, or at a time of natural disaster for a period not to exceed thirty (30) days. The emergency state may be extended for another period of thirty (30) days by securing the approval of two thirds of the Legislative Council. The decree declaring a state of emergency shall state its purpose, the territory to which it applies, and its duration. The Legislative Council shall have the right to review all or some of the procedures which have been implemented during the emergency state at the first session to be convened after the announcement of the state of emergency, or in the extension session whichever comes earlier, and to conduct the necessary questioning in this regard.”

- The epidemic

It is the disease that spreads to several countries around the world at the same time. According to the World Health Organization, a pandemic is declared "when a new disease spreads, in which people do not enjoy immunity, around the world, beyond expectations."

- Education in emergencies

It is to ensure that "develop education systems that are more resilient and responsive in the face of conflict, social unrest and natural hazards – and to ensure that education is maintained during emergency, conflict and post-conflict situations".

6. Discussion

Education in emergencies is one of the methods of life saving for children and students in schools, as schools provide stability and work to adapt them after crises and treat them from the psychological

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3 Palestinian Basic Law
4 www.who.int
5 en.unesco.org
impact they were exposed to, as it may give them some basic services and needs such as food, drink, sanitation and health services.

UNICEF is one of the United Nations organizations that supports education in emergency situations, as it works to provide continuous education for children affected by disasters in addition to training and providing them with support to be preparing to face disasters and reduce their risks, as well as training them how to respond to the emergency event and support governments in providing educational environments that provides protection, safety and psychological support to the students.

- International statistics indicates that 1 of 4 children around the world are not attending school as a result of crises.

- In addition, in 35 countries around the world, disasters and crises have disrupted 75 million children between the ages of 3-18 years.6

UNESCO stressed that the interruption of education in times of emergency not only constitutes a humanitarian crisis, but also amplifies it into a development crisis affecting all groups of affected peoples, especially the youth generations.7

It places its first priority on education in the humanitarian response as a source of hope, stability and security to face the disasters and reducing their losses, and considering it as one of the most important conditions for post-disaster reconstruction.

On the local level, education in Gaza Strip was interrupted several times as a result of the emergency events that occurred in the Strip. During 2008, the sector was subjected to armed conflict lasted from 27th Dec 2008 to 18th Jan 2009, during which students were cut off from continuing the educational process during the first semester and no means were used to continue Learning during this emergency event, and as Gaza Strip exposed and is still exposed at the beginning of 2020 to the repercussions of the crisis of the spread of Covid-19 virus, "Corona", which the World Health Organization declared a global epidemic8. As of this writing, 61 countries in the world have announced the suspension of educational activity in schools and universities around the world, which has affected to this moment the continuity of education for nearly 422 million students, and it is expected that hundreds of millions will be added to this number within the coming period9.

The President of the Palestinian National Authority declared a state of emergency in all governorates after the Palestinian Ministry of Health announced that some citizens in the city of Bethlehem were infected with the Corona virus10. The state of emergency was imposed in all governorates including Gaza

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6 [www.unicef.org](http://www.unicef.org)
7 [en.unesco.org](http://en.unesco.org)
8 [www.who.int](http://www.who.int)
9 [en.unesco.org](http://en.unesco.org)
10 [site.moh.ps](http://site.moh.ps)
Strip, while the number of cases still increasing in the West Bank, which reached 42 confirmed cases so far.\(^\text{11}\)

The declaration of the state of emergency resulted in the suspension of the educational process in all schools in Gaza Strip as one of the methods of taking protection and prevention of the spread of the epidemic among students. The announcement of the state of emergency coincided with the end of the educational process, with the completion of approximately 70-80% of the school curricula in schools.

Therefore, it is required from the decision-makers to take appropriate measures to avoid any of the students being infected with this epidemic as a result of gatherings inside schools, and to work on continuing the educational process.

**How did different countries deal with the event to ensure the continuity of the educational process?**

We will look here to list some models that have been followed in various countries around the world to ensure the continuation of the educational process as a result of the schools closure to limit and contain the spread of the Corona virus.

**China:**

At the end of 2012, China launched the public service platform for national education resources, this platform is an innovation of the Chinese central government to provide basic public services in education, through which students, teachers, and even parents can exchange files, information, and different educational curricula to enhance the quality of grantee education for everyone. China has relied on this platform effectively since its inception, which has led to a smooth reliance on it completely during the current crisis\(^\text{12}\).

**France:**

The French government has provided a virtual education system that can be accessed via smartphones and computers. Teachers were able to facilitate the organization of distance learning. This platform is distinguished for its work for non-native speakers of French, such as English and German\(^\text{13}\).

**The Islamic Republic of Iran:**

Supplementary educational televised programs are devoted to different levels of education, broadcasted through the education network television channels. The Ministry of Education updates the dates of broadcasting the various school subjects on a daily basis on the Ministry's website\(^\text{14}\).

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11 site.moh.ps
12 www.eduyun.cn
13 www.cned.fr
14 www.medu.ir
Italy:

It has adopted an online platform that provides all updates and instructions related to dealing with the causes of the spread of the Corona virus, and it also provides students with a wide range of links that provide different curricula and educational materials for students at all levels of their education\textsuperscript{15}.

Japan:

“Creating a society in which people of all ages, from children to adults, can learn and apply their acquired skills anytime and anywhere, Since the school is closed, we do not have to stop learning.” This is the vision and mission of the Japanese government to students and teachers in Japan, to achieve this vision, the Japanese government has created two educational platforms, the aim of the first is to connect students and teachers and provide various educational materials in an interactive way, whether as a direct broadcast to students and direct interaction between students and teachers or pre-recorded materials. The second platform is for the Ministry and students, teachers and their families can follow the news of the current virus crisis and access the latest developments and procedures followed by the Ministry\textsuperscript{16,17}.

Kuwait:

The Kuwaiti Ministry of Education has provided educational curricula for the various educational levels through a special television channel called "Educational" as well as educational curricula and various enrichment materials on various social media platforms such as Facebook\textsuperscript{18}, Instagram\textsuperscript{19} and Twitter\textsuperscript{20}.

However, what is distinctive for Kuwait here is the Ministry’s interest in and follow-up to special education platforms and educational applications on smart phones, which are managed by specialists from the private sector and exchange experiences with them, because of its belief in the importance of e-learning, which has become an urgent need in the modern era, especially in times of crisis\textsuperscript{21}.

Kingdom of Bahrain:

Activating the educational portal, which is an electronic platform affiliated to the Ministry of Education, as it provides administrative and educational services for all academic levels and allows communication between educational and administrative bodies, students, and parents\textsuperscript{22}.

\textsuperscript{15} \url{www.istruzione.it}
\textsuperscript{16} \url{www.mext.go.jp}
\textsuperscript{17} \url{www.learning-innovation.go.jp}
\textsuperscript{18} \url{www.facebook.com/moechannelkuwait}
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Palestinian National Authority / Southern Governorate:

The Ministry of Education and Higher Education in Gaza Strip, through the Voice of Education Radio, broadcasts educational and enrichment programs for the various educational levels, and the Ministry updates the daily broadcast schedule for the various subjects. Many videos of this material are also displayed on the radio's Facebook page.

While some initiatives from the private sector have been active to promote e-learning in the Palestinian National Authority region, for example, but not limited to the initiative launched by the Ipoke company entitled Online Learning, which is a community initiative to promote distance learning in Palestinian educational institutions and the success of the experiment in the event of the closure of Palestinian institutions after the spread of the Corona virus Sk. Through this experience, Ipoke aims to provide knowledge, guidance and information about distance learning and local, Arab and international experiences that have contributions and successes in this field.

As well as the educational platform named Rawafed, which provides "a flexible and easy-to-use online learning environment that improves student learning and communication with those in charge of the educational process, in addition to spreading the culture of e-learning in the local community, using e-learning tools, computerizing curricula, modern technological tools, and training all the groups that benefit from this environment to use it to achieve the goals of the Ministry of Education and Higher Education in Palestine, and support the quality teaching and learning processes."

The chances of success of these initiatives are high if they are implemented effectively, in cooperation and supervision with the Ministry of Education and Higher Education. Especially if we know that the residents of Gaza Strip depend very heavily on communication via different social media platforms in normal times, and this communication increases during times of crisis, and the number of subscribers to social media pages of Internet users in Palestine, especially Facebook, exceeds 93% of the total subscribers to the internet service.

All of the mentioned above indicates the possibility of reaching a methodology and strategy adopted in one way or another to ensure continuity of education during emergencies, but with specificity according to the emergency, what can be applied in times of health emergency such as the crisis that has arisen from the spread of the Corona virus may not be applied in emergencies resulting from wars or severe natural disasters such as earthquakes, hurricanes, etc.

Reliance on technology is very fruitful and effective in the event that it is available and is considered a vital alternative to education, but in the absence of it, or the irregular access to it, as is the case in Gaza Strip in particular, where it suffers from severe and permanent shortage of electricity, as the number of

23 www.facebook.com/fmedu
24 www.facebook.com/t3lamonline
25 www.rawafed.edu.ps
26 www.ipoke.co
hours of obtaining it reaches 14 hours a day, divided into disconnected periods at best\(^\text{27}\). What other solutions can be followed?

The researchers believe that dealing with the continuity of education in Gaza Strip as a special case during times of emergency needs the concerted efforts of all stakeholders from the Ministry of Higher Education, United Nations organizations and the local community to develop viable strategies with different causes of the crisis.

Researchers also ask some important questions that need clear answers and specific circumstances included in these strategies, for example but not limited to:

- Will there be a unified strategy for all emergency events? Or will it differ according to its causes?
- Will the strategies be based on a single time limit? Or will you be divided into phases, according to the time span of each emergency, which led to the disruption of the educational process? In short, medium or long terms.
- After the crisis ends and normalcy returns, will the curricula start from where it ended, or will the scientific material presented during the crisis period be approved?
- What is the best way to compel students at home with educational materials during times of emergency? How will their practical achievement be evaluated?

Therefore, during emergency events, the researchers suggest that the variant tasks to be shared and divided between the Ministry of Education and Higher Education, school principals, teachers inside the school, and the local community outside the school as follows:

**The role of the Ministry of Education and Higher Education:**

- Determine the state of emergency, its causes and consequences on people.
- Identify areas of vulnerability (needs / rights).
- Participation of local community members in decision-making to ensure the progress of the educational process.
- Provide opportunities to develop the capabilities of the members of the Student Parents Council to deal with emergencies.
- Determine the necessary skills and knowledge that students required to continue the educational process.
- Cooperation between the Ministry of Education and other ministries to enhance the quality and comprehensiveness of education.
- Enriching the curriculum with means of protection and psychological and social support for students during emergencies.
- Establishing community-based and home-based schools in the event of an emergency.
- Build and repair learning environments with designs suited to emergencies.

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\(^{27}\) [www.ochaopt.org](http://www.ochaopt.org)
Connect schools and different learning environments with child protection, health, nutrition and social services.

Addressing the social needs of students and education personnel during each stage of the emergency to identify the damage they have and work to remedy it.

Develop alternative curricula for emergency situations that enhance student’s different rights.

The role of education directorates in emergency situations

- Coordination with members of the local community (the Supreme Parent Council) to develop long-term or short-term contingency plans.
- Identify the strengths and weaknesses of the affected areas.
- Define the roles and responsibilities of local community members to ensure the continuity of the educational process.
- Holding courses for all education personnel about the skills and knowledge necessary to create a permanent learning environment for the student.
- Diversity of activities during its development and application during emergency phases in marginalized areas.
- Train teachers and other workers in skills to help students and the local community avoid and reduce future disasters.

The role of the school principal in an emergency

- Follow-up and permanent coordination with the director of education directorates which he belongs.
- Permanent coordination with members of the local community through the Supreme Council of Parents to participate in developing alternative plans (long-term, short-term).
- In cooperation with teachers at the school, develop plans to communicate with students and their families during an emergency event.
- Holding a student council for the school consisting of student leaders to assist in making their own decisions.
- Assist the Student Council in assessing risks to understand student needs and priorities.
- Find alternative educational methods and safe places for education (school / home / e-learning).
- Involve families and communities in environments where threats are common to reinforce positive teaching aids in emergencies.
- Choose alternative learning places close to teachers and students, to protect them during the movement in the emergency.
- Reinforcement for self-education students and students with special needs.

The role of the local community and the parents of students to keep the running of the educational process

- Adopt a culture of self-education for students according to the emergency situation.
- Encourage students to invest in social media in self-education.
• Forming follow-up committees by supervisors in cooperation with parents’ councils to follow up students’ communication with their teachers during the emergency to continue the educational process.

• Mainstreaming successful experiences of distinguished initiatives at the ministry level and supporting them by the Supreme Council of Parents to benefit from them during times of crisis and emergency, especially for some Palestinian initiatives which received international awards.

• Take advantage from parents who hold high university degrees in creating follow-up committees for students, each in their area of residence.

7. Findings and recommendations

After studying the emergency situation that the world is exposed to as a result of the spread of the Corona virus and the proposed solutions from some countries of the world that are commensurate with the size of the event and what they have ready to overcome this event, since we are part of this world that is exposed to such an epidemic and has not been previously exposed, and after reviewing published research about this topic; researchers have come to the necessity of holding immediate committees representing all stakeholders to present some solutions and alternatives that help the continuity of education and not depriving students of their natural right to education.

This solution includes:

• Direct students to private educational centers adjacent to their residences to receive the education that they were deprived of during the crisis, with the follow-up of these centers by the Ministry of Education and Higher Education on which qualified and experienced teachers are based so that the required benefit can be achieved. Taking into account the directives of the World Health Organization and the Palestinian Ministry of Health, that the centers not to be crowded with students and divide them into simple groups that do not exceed ten students in the place with a safe distance (perimeter of $2m^2$/student) to prevent disease in light of the continued confirmation of the Ministry of Health that there are no medical cases in Gaza Strip.

• Communications with officials in the Ministry of Education and local community leaders to find a mechanism to compensate students for the scientific materials that they have missed during the crisis and, while we are at the end of the school year and not less than 70% of the study materials has been accomplished, there are several options that they can chose the best one of them, for example:

1. The result of the first semester is approved as a final result and ends the school year.

2. Students are tested in the subjects they have completed from the curriculum until the day of school dropout, if the percentage of what has been accomplished from the curriculum is acceptable as a minimum amount of educational achievement.

3. All students succeed and are transferred to the next stage of the new school year, because students' return to school seats is not safe in light of the continued existence of the threat.
• Train students in self-education in natural days in anticipation of such circumstances, so that education gradually turns from teaching by the teacher to self-education in times of crisis to ensure continuity of education.
• Prepare practical papers for each subject separately, so that it can be used in emergency times, and communicate with parents and the local community to dispatch them to students. The students will train on them and not to interrupt their education.
• Broadcast explained lessons and hold electronic exams for students.
• Convert the written curriculum into an electronic curriculum that contains the scientific material and some worksheets and tests through a site for each educational stage or make an electronic application that includes all the stages.
• The Ministry of Education and Higher Education adopts compulsory subject for all school levels, which is learned and evaluated through e-learning. Students and parents are accustomed to this type of education during normal times, and it is very easy to fully transition to e-learning during times of emergency.

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