

# What can we take from the pandemic to the future of Education?

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**Abstract**— Covid-19 pandemic has affected the educational systems worldwide, causing the closure of higher education institutions and schools in many countries in the world. It was a sudden transformation to distance learning. Educational institutions, teachers, students, and families were not ready to confront the challenges of this emergency case. This paper presents ongoing project research, which aims at investigating and documenting the knowledge and skills that were gained through the pandemic by students and teachers and can reshape the future of their education. It aims to measure the teachers and the students interaction and engagement during online learning. Qualitative and quantitative methods will be used to collect needed data and provide policy makers with indicators in order to be able to develop the educational policies. Several tools will be designed to collect data. Collaboration is needed in this project in order to be able to conduct, and compare different perspectives and contexts from several backgrounds and countries. Moreover, collaboration includes joint projects, conferences, and workshops.

**Index Terms**— Skills, Future of education, Pandemic

## I. INTRODUCTION

The pandemic has affected all education systems around the world in different ways. Many countries have switched to technology and online teaching in response to crises and shutdown of schools and universities [1].

The impact of the COVID-19 pandemic on research in response to the pandemic highlighted the importance of research, challenges of research during disasters, and opportunities and resources for making research more efficient and cost-effective [2]. Researchers around the world tried to investigate the effects of COVID-19 like the scientific globalism, research collaboration, and open access publications on COVID-19 [3] and it was found that scientific globalism occurs differently when comparing COVID-19 publications with non-COVID-19 publications during and before the pandemic. [4] aimed to find out the global status and trends of coronavirus research, and the results were categorized into four main themes. The four themes were pathological research, epidemiology research, clinical research, and mechanism research.

In Palestine education has also been disturbed. Schools and universities have been closed and forced to move to distance learning. Many studies have documented the impact of the pandemic on ensure the right to education in Palestine and have found that many children have been deprived of their right to good education. Many others were unable to access online education due to lack of computers or smart devices, while others have suffered from the low speed of the internet or the continuous shortage of electricity,

especially in specific marginalized areas [5]. A recent study investigated the challenges associated with emergency remote teaching in Palestine, and it found that digital inequity and digital privacy were key challenges in online teaching [6].

Palestinians have been under crisis for the last 70 years and their education have been interrupted several times for long periods and tried to find different solution to continue their education [7]. Palestinians have valued their education and considered it as an important tool for better life. So, the Palestinian case is very rich for further investigation in the research of education under crisis situations, especially on the topic of how they transform previous knowledge and experience into a new one in the pandemic and learned from the past.

For young students age between 6-12, students' motivations for learning and teaching have been decreased since they lost the ability to see their friends, interact, and play with them, which usually consider as the most important factor that children value at going to school. Other children find it entraining to go online through their parents' smart devices and interact with their teachers and colleagues in the beginning, and then they start getting bored of it.

Schools' and universities' teachers could be divided into three main categories regarding their skills and attitudes toward technology, the first are the young generations who have easily transferred online, the second are the motivated generation but lack digital competencies and needs to be trained, while the third are people who rejected the transformation and lack digital skills. Each category has been trained and starts working in different levels of quality, and this indirectly affects the learning outcome. So, each category has its own experience and own way to respond to the crisis, which needs to be analyze and documented.

## II. PREVIOUS RESEARCH

At An Najah National University, we have started investigating the impact of the pandemic on students' learning at schools and universities, and found many common factors that affect the results such as gender, geographical area, type of school, availability of infrastructure, parents background, students' wellbeing and motivation for schools, teachers' skills and capabilities, etc. Many of these variables could be similar to other countries around the world, but of course there was particular and special interpretations for it from the Palestinians' perspectives due to their previous understanding of crisis and closure. More understanding of their perspectives and the impact of political, social and economic issues could be discussed.

The researchers have also investigated teachers' perspectives, challenges, and best practices in the beginning and after one year of the shift towards online learning in order to share their experiences globally for empowering the knowledge communities. The researchers used a mixed approach through qualitative and quantitative methods to measure the size of the problem and at the same time to learn deeply and analyze participants' understandings, attitudes, engagement, and behaviors. Survey, interviews, and focused groups have been used according to the research goals and objectives.

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### III. FUTURE RESEARCH COLLABORATION

Future directions focus on studying the knowledge and skills gained by teachers and students from the last period during the pandemic since they were forced to work online or in the distance from their homes, and they have been able to produce different types of learning material to deliver it to their students, also they were able to find different ways and tools to communicate with their learners. Self-learning skills were developed and also appreciated.

It is expected that the results of this study will inform policy makers in Palestine and around the world with qualitative and quantitative indicators of how to reshape the future of education after the end of Covid-19 crisis, building on their previous experiences and lessons learned. It is also expected to have a comparative analysis between different countries in order to find common features and factors and different ones related to culture and society. We need to document how did teachers survive their teaching and how did students continue their learning despite of all the challenges, and what are the main skills that they would like to emphasize for tomorrow generations in order to reshape future education. Moreover, future collaboration could be presented by shared activities, projects, programs for instructional design under emergency case. The outcomes of future collaboration may be addressed in conferences and workshops.

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