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\*Corresponding author: Ghassan Omar Shahin, Palestine Polytechnic University, Jabal Abu Rumman, P7250153, Hebron, West Bank, State of Palestine  
E-mail: [gshahin@ppu.edu](mailto:gshahin@ppu.edu)

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## EDUCATION POLICY | RESEARCH ARTICLE

# Proposed policies in light of procedures adopted by Palestinian universities during emergency

Nuha Iter<sup>1</sup>, Mervat Sharabati-Shahin<sup>2</sup>, Refa' Jamal Ramahi<sup>3</sup> and Ghassan Omar Shahin<sup>4\*</sup>

**Abstract:** Higher education in Palestine, as in other countries, suddenly found itself in the middle of the Covid19 pandemic. It was in March 2020 that the government declared the state of emergency and ordered educational institutions on lockdown, replacing oncampus teaching with online teaching. Within almost two weeks, all universities started teaching in the new modality. This research aims to reveal the procedures Palestinian universities resorted to during the emergency, due to Covid19 pandemic; and to propose future policies for the continuity of teaching and learning in times of emergency. The research used two data collection techniques, a questionnaire and interviews. The questionnaire was distributed online to all faculty

### ABOUT THE AUTHORS



Ghassan Omar Shahin

Nuha Iter, Associated professor at Palestine Technical University Kadoorie, leading the (3EEE) Erasmus+ project, leading TVETCQ project (Erasmus+), developing at least 100 TOT training modules, for teachers and school principals, develop training programs for teachers, leadership, and evaluators expert in education, developing vocational training programs, and vocational and technical curriculum. She is the Head of Teacher Qualification Program, and Coordinator of TVET Master program at the university. She is the founding Dean of the Educational and Art College. She served as the director of Teaching and Learning Innovation Center at PTUK.

Mervat SharabatiShahin is an Assistant Professor at Al-Istiqlal University, Palestine, working as Head of Department, Faculty of Administrative Sciences, and Coordinator for Master programs; *"Public Administration"* and *"Management of Crisis"*, Faculty of Postgraduate Studies. She received her PhD in Entrepreneurship with distinction (Science & Technology) and an MSc in Philosophy and Science and Technology Policy Studies (as Policy Maker) from University of Malaya, Malaysia, a BSc in Biology from Hebron University, and Diploma in Child Day Care, International Correspondence Schools; USA. She has professional qualifications in project management, Teacher education, and a Fellow of MEPLI of Harvard University.

Refa' Jamal Ramahi, PhD, is currently dean of the Faculty of Education. She was previously the Director of Academic Development Unit at Birzeit University, also she was the former Chairperson of Curriculum and Instruction Department at the Faculty of Education from 2015-2017. She is an associate Professor of Mathematics Education. She holds an MA in Mathematics Education from Birzeit University, and PhD in Mathematics Curricula and Instruction from Jordan University.

Ghassan Omar Shahin has obtained his PhD in Computer Science (E-Learning) from University of Malaya. He has an MBA in Information Systems from Maastricht School of Management, and a BSc. in Computer Science from INTERCOLLEGE (now University of Nicosia). He served as the Dean of College of Administrative Sciences & Informatics (CASI), Palestine Polytechnic University (PPU) for two terms, and as the Information Manager for 2 years at PPU. He has around 30 years of work experience in private sector and academia in different countries including Cyprus, Saudi Arabia, Malaysia and Palestine. He is a certified e-commerce consultant since 2002. Currently, he is a Master Trainer (Academic Developer) for faculty development at Center for Excellence in Teaching and Learning at PPU, in addition to his role as Assistant Prof of E-Learning and Information Systems at CASI.

Dr Shahin possesses qualities and characteristics of an Intrapreneur, where his initiatives and creative ideas have materialized at PPU as new academic programs and others. Some of such include him being the founding Dean of CASI at PPU. He has founded several undergraduate programs as well as two-year programs, and involved in founding and developing Master Programs. He represented the university in various committees on national levels, and was a member of the national committee to draft a law on e-learning for higher education in Palestine.

members at 10 Palestinian universities in the West Bank. It was able to collect 249 responses. Interviews were conducted with three vice presidents for academic affairs. Results showed a diversity of procedures and actions were executed by universities to assist students continue learning, such as the quick decision to switch to eLearning. In addition, universities managed to keep students safely learning at distance; administrative and support departments managed to keep up with their duties. Results also revealed that universities were not adequately prepared for e-Learning as there were no clear and integrated plans and policies, neither they were able to manage learning within the new modality. This study proposes some future policies for universities to follow when adopting and implementing e-Learning: through e-Learning quality control policy; e-Learning assessment policy; and readiness policy in emergencies for universities.

**Subjects:** Teaching & Learning - Education; ICT; Education Policy

**Keywords:** higher education institutions; teaching/learning policies; e-Learning in emergency Covid-19 pandemic; emergency policy

## 1. Introduction

Despite the negative impacts the Covid-19 pandemic had on all sectors all over the world, it is an opportunity to learn the most efficient methods to handle emergency, building on lessons learnt from experiences such as SARS; hypothesizing that the virus outbreak would happen in several waves; and other similar pandemics might happen. In this context, the World Bank has indicated that governments have dealt with the pandemic in different methods and strategies. Some countries have raised alert levels while keeping educational institutions open under strict health measures; others have put forth protocols to deal with possible scenarios and cases; yet others restricted direct physical contact by minimizing social and extracurricular activities; where others have imposed complete closure and resorted to Internet-based education (Qazehaq & Shamis, 2020).

In the early 2020, the World Health Organization reported Covid-19 a pandemic, as it spread quickly all over the world by March 2020 (WHO, 2020). The Covid-19 outbreak was a world-shocking reality that disrupted individual and community life style, and the education sector suffered as many others. Many countries declared a state of emergency that affected almost all sectors. Schools and universities altered their practices and norms on all levels and switched to a new unclear “norm” as a reaction to deal with Covid-19 pandemic, one of which was the switch to Internet-based teaching and learning.

The pandemic revealed countries’ capabilities to deal with the emergency case in general and specially in education. Interestingly, emergency management was a reaction, and not a pro-action, as indicated in the report of National Center for Campus Public Safety-NCCPS (2016) where some results showed that the campus mentality is dominant, as people think that incidents should occur before engaging in improving emergency management programs. It also clearly stated that 58% of those surveyed believe that emergency response plans are more common than proactive/preemptive ones, in addition to 47% stated that staffing in emergency management has not changed and there was a shortage in staff (National Center for Campus Public Safety-NCCPS, 2016).

For the recent Covid-19 pandemic, the World Bank has issued some recommendations to confront the pandemic. Of those, it recommended all countries have preemptive plans and countermeasures set in place when faced with the pandemic for minimal damage, which included tests’ protocols; health and sanitation campaign; closing down schools and other institutions while

recommending education authorities to develop new learning models during emergency; and making educational systems less vulnerable in emergencies (Qazehaq & Shamis, 2020). The Palestinian National Authority declared emergency in the first week of March 2020 to confront Covid-19, and asked universities to continue the education process off-campus in the shortest possible time. In two weeks' time, Palestinian universities had responded quickly to the emergency and started teaching off-campus. This response raised the skepticisms of universities' readiness and ability to switch to e-Learning. According to Toquero (2020), higher education institutions should respond effectively to stakeholders' needs. Within this context, this research tries to shed light on e-Learning practices, procedures and policies in emergency across higher education sector in Palestine, and propose a set of policies for universities to adopt in emergency.

## 2. Problem statement

The declaration of emergency by authorities in Palestine has caused universities to act accordingly to maintain education under emergency. Each university has responded individually, but without taking into account the readiness of faculty and students for e-Learning. The proposed methods of teaching varied between universities as well. The significance of this study comes from its focus on the procedures that were adopted by Palestinian universities during the pandemic. It would be beneficial for the Ministry of Higher Education and the universities to adopt the proposed policies of this study in order to maintain the quality of learning during emergencies. This study aims to shed light on emergency e-Learning practices, procedures, and regulations in Palestine's higher education sector and offers a set of guidelines for universities to follow. Therefore, it would be prudent to explore and identify those policies at Palestinian traditional universities by answering the main question: what were the policies followed by Palestinian traditional universities during the pandemic? This question could be further divided into the following two questions:

- (1) What measures did Palestinian traditional universities take to ensure continuity of the education process during the pandemic?
- (2) What would be future policies to be adopted by Palestinian traditional universities to ensure continuity of education during and after the pandemic?

Answering these questions, the research tries to achieve the following two objectives:

- (1) Identify measures taken by Palestinian traditional universities during the Covid-19 pandemic to ensure continuity of education
- (2) Propose future policies that ensure the continuity of education in emergencies at Palestinian traditional universities after the pandemic.

The following literature review begins with a detailed overview of the relevant research. After that, the data collection process is described in detail. Then, the results and general discussion section. Finally, the paper provides some recommendations for universities and for future research.

## 3. Literature review

With the continuous spread of Covid-19, more universities closed their campuses and switched to e-Learning, therefore students as well as faculty members were affected. This prompted researchers and international organizations such as Crawford et al. (2020), UNESCO (2020), United Nations (2020), Cuaton (2020), Quezada et al. (2020), Jena (2020), Yulia (2020), Salmi (2020), and Toquero (2020) to raise concerns like: how did universities manage to switch to e-Learning quickly? How did students and faculty accept it? These concerns are mostly directed to low-income countries due to limited resources and capabilities where many crucial assets are questionable. The readiness of homes, faculty technical skills, the Internet bandwidth, e-content access, and instructional design skills are causes for concern, seeing, as many higher education institutions were quick to switch to Internet-based learning before minding e-teaching/learning methods and skill (Crawford et al., 2020). According to UNESCO (2020), distance learning has imposed itself in the Arab World due to

Covid-19 pandemic, therefore the need for planning and improving the quality of education became of priority in order to achieve learning outcomes. Moreover, for that to materialize, efforts should be directed to digital content creation, variety, analysis and evaluation, and the use of new learning methods. However, it should be noticed that such type of education is not and should not be an alternative to normal education UNESCO, 2020.

Internationally, the United Nations announced that the pandemic has caused the largest effect on education in history, as more than 1.58 billion amounting to 94% of students worldwide have been affected on all educational levels and forms United Nations, 2020. As Covid-19 was surprisingly spreading all over in a fast mode, it is obvious that it needs to be dealt with in a way to keep its effect on society to a minimum; maintaining fair and sustainable opportunities to minimize the effect of this sudden change. This change process needs to be considered as a learning process rather than a re-action, where proper measures and actions on all levels at higher education institutions should be taken; otherwise, big leaps would be needed at later stage Hall & Hord, 2015. Because almost everyone has dealt with the pandemic as an incident, universities' responses in the six areas covered by World Health Organization were different, ranging from social distancing in campus, to implementing certain measures for e-Learning, to those who did not implement even social distances at campuses (Crawford et al., 2020). According to UNESCO (2020), there were no clear policies to close schools and universities on a national scale in countries such as Brazil, Canada, Greenland, Russia and United States of America.

Consequently, new teaching/learning reality has emerged. Due to the pandemic, different countries have tried different setups for teaching and learning be it on national or institutional levels. According to Bensaïd and Brahimî (2020), universities in the Gulf Cooperative Council Countries—GCC—have switched to Internet-based learning to ensure continuity of education, with flexible and varied assessment methods and e-resources, in addition to counselling services, however different between countries. In another corner of the world, the Philippines' higher education authority has taken some actions and measures to maintain successful learning such as developing examination protocols in light of the WHO instructions, providing students with necessary information and support with counselling services (Cuaton, 2020). Other measures were also implemented such as having in-campus clinics, amending academic calendar, assessing students using available measures, cancelling extracurricular activities, and deferring graduation ceremonies (Cuaton, 2020). One of the colleges in California, USA, prepared a plan to switch to Internet-based learning due to Covid-19, taking into account several dimensions such as technology-based teaching strategies, alternative technology-based assessment methods, feedback, course emotional engagement and psychological support (Quezada et al., 2020). In India, Jena (2020)) reported that higher education institutions adopted flexible education services and measures; also reported the emergence of new learning patterns; new views and trends and predicting that this situation would continue, resulting in a would-be new teaching and learning models in India. Exploring the responses of 20 universities to Covid-19 pandemic in 20 different countries, Crawford et al. (2020) reported that there was no unified reaction or responses among these. The study showed that high-income countries reported high number of infections; and most of them have closed all campuses and switched to Internet-based learning except United States, while all developing countries, with the exception of a few, announced the closure of all schools and universities on a local basis. On the other hand, countries such as India, China, South Korea, Hong Kong and South Africa extended the semester break and resort to e-Learning. Underdeveloped countries have resorted to free e-Learning platforms and resources to make-up for the loss (Crawford et al., 2020). The study concluded that though there was not enough time for unified international actions; universities all over need to join forces on domestic and international levels to maintain high standards of digital education and to provide students and communities at home with support to improve the learning environment.

In Saudi Arabia, King Abdulaziz University acknowledged the importance of proper infrastructure it has based its fourth plan on, as when the pandemic spread, students were denied access to

campus and the university switched to e-Learning. The university's plan with installed infrastructure, an accumulated experience with e-Learning combined with faculty training and additional training on Blackboard Ultra aided in the smooth transition to e-Learning with almost no obstacles (King Abdulaziz University, 2020). On the other hand, Yulia (2020) pointed out that in Indonesia; universities were closed and switched to e-Learning, where lecturers used a variety of teaching methods suitable for e-Learning. On a contrary view, José Sá and Serpa (2020) considered Covid-19 as an opportunity to improve sustainability in higher education, suggesting that Covid-19 has caused improvement in sustaining digital development in higher education combined with challenges. It added that Covid-19 has provided good conditions to all stakeholders, for new commitments towards sustainable development in higher education such as enforcing rigorous scientific practices and supporting the inclusion of needed policies.

Jelińska and Paradowski (2021) concluded that despite the negative effect of Covid-19 pandemic, it might bring positive developments to education after the pandemic; therefore, institutions should be ready for long-term support for both teachers and students. They also found that teachers who have prior experience with teaching remotely or using synchronous methods are more adaptable and engaged in the transition to new teaching modality (Jelińska & Paradowski, 2021). In its guide for policy makers in academic, technical and vocational education, UNESCO (2020) recommended that there should be managed change for planning future of e-Learning, adequate policies and regulations for blended learning, converting traditional contents into high-quality digital contents. In addition to that, it recommended adoption of quality standards in e-Learning, more investment in e-Learning, setting forth international plans towards digitalization, and acknowledging the important role of big data in education UNESCO, 2020. This indeed put more pressure on higher education to meet expectations and demands of different parties. Toquero (2020) argued that higher education institutes must respond effectively and efficiently in administrative practices, as the pandemic is changing the way the education system is executed, and therefore evidences of good practices and handling of crises are much needed. This could be, according to Toquero (2020), in the form of "strengthen data monitoring, documentation and evidence-based practices of the services and programs that are offered to the students" (Toquero, 2020). In addition, Toquero (2020) recommends that faculty need to put more efforts, among others, in strategic planning, documenting best processes and improve learning.

Locally, Palestine has declared a state of emergency on 5 March 2020, due to Covid-19. Varied reactions among affected communities were reported. However, because education affects almost every home, Palestinian traditional universities were quick in putting forth some measures and alternatives to assure the continuity of the education process in this emergency, as more than 170,000 students in higher education sector were directly affected (MOHE, 2020-a). As the pandemic continued, Palestinian traditional universities responded differently based on the institution's capabilities and infrastructure; but not according to a pre-set policy. MOHE has announced that there will be a strategy for the digitalization of higher education to facilitate the digital transformation in higher education institutions (MOHE, 2020-a). It added that a by-law draft for e-Learning is being prepared, among other initiatives, and put forth to go through appropriate legislative channels. Moreover, results of a study conducted during second semester of the academic year 2019–2020 by Ministry of Higher Education and Scientific Research MOHE (2020-b) showed that 81.5% of lecturers and 41% of students in their institution have trained them on e-Learning, while 67.1% of lecturers and 44% of students agree that e-Learning has accomplished the knowledge part of intended learning outcomes. In addition, 70.9% of lecturers and 39.9% of students indicated that e-Learning touched on all aspect of the curricula based on course outline, while 71.8% of lecturers and 43.2% of students indicated that e-Learning has given more opportunities for lecturer-student communications (Ministry of Higher Education and Scientific Research MOHE, 2019). The study recommended, among others, that e-Learning be used as a support to face-to-face teaching and learning, e-Learning platforms be made available to higher education, training faculty and students on e-Learning, e-Learning by-law to be implemented and monitored by the ministry and the universities.

#### 4. Methodology

Mixed method approach was used—quantitative/descriptive, qualitative/interactive—for completing this study. The researchers used the funneling method to develop the questionnaire, where some items were extracted from literature. Other items were constructed by the researchers based on their experiences; taking into account the local context. The questionnaire consisted of three parts: demographic data of three items, and the second part consisted of 44 items and the third has two open-end questions. The second part of the questionnaire consisting of 44 items was designed based on Likert-scale—Strongly Agree, Agree, neutral, Disagree, and Strongly Disagree. These were converted into numeric values as “5” for SA and “1” for SD.

The population consisted of all 5000-faculty members at 10 traditional Palestinian universities in the West Bank of Palestine according to statistical reports issued in 2019 and 2021 by the Ministry of Higher Education and Scientific research (Ministry of Higher Education and Scientific research MOHE, 2019). The questionnaire was distributed online, using Google Forms, due to the emergency. It was sent over to university officials to forward it to the faculty members at their respected universities. In addition to that, the researchers forwarded it through their personal connections, especially to faculty members at universities where officials failed to do so, asking them to forward it to others as well. Unfortunately, there were only 249 responses, while it should be around 360 responses based on confidence level of 95% and confidence interval of 5% (Creative Research Systems, n.d.). As the sample size should be 360; and there are 249 responses, then the response rate is  $249/360$  which is equal to 69.17%. This number of responses could be attributed to the fact that there were many questionnaires distributed to faculty members by other researcher during the same period, where faculty members commented, they were fed-up filling questionnaires. In addition, officials at some universities did not forward the questionnaire to their faculty member, and even one VP responded by saying, “we shall not distribute it to our faculty because some of them are doing research similar to this one”.

In addition to the questionnaire, three vice presidents for academic affairs at three universities were interviewed. The interview questions were developed; and passed to the VPs to answer.

Both instruments were subject to 10 experts’ judgment—review—of varied academic backgrounds. Comments and suggestions were taken into account to enhance both instruments. Then, a pilot test was conducted by sending the questionnaire to 30 faculty members of various background and from different universities, to test it, informing them that it is in fact a pilot test and their comments are welcomed. There were 12 female and 11 male respondents, coming from different academic fields as shown in Table 1.

The questionnaire scored a reliability of 0.927 based on Cronbach’s Alpha, which is considered very high; and indicates that the questionnaire can be distributed and used as shown in Table 2.

Data collected through the questionnaire were analyzed using the SPSS software. It first was converted from Google Forms into a Google sheet, and then exported to SPSS.

The reliability of the final questionnaire with 249 responses scored 0.873 based on Cronbach’s Alpha as shown in Table 3.

The demographic characteristics of the respondents are shown in the following Tables 4-7.

The percentage of female participants could be attributed to a similar percentage of female faculty members at these universities. Table 5 shows the distribution of respondents according to universities. Names of the universities were coded as university1, University2, etc. for privacy issues. The varied percentages of responses based on university; could be attributed to what has been mentioned above regarding the sample size and the actual number of responses.

**Table 1. Distribution of faculty members according to field/specialization**

	Frequency	Percent	Valid percent	Cumulative percent
Valid				
Social Sciences	1	4.3	4.3	4.3
Arts and Humanities	3	13.0	13.0	17.4
Engineering	1	4.3	4.3	21.7
Computing Sciences and Information Technology	2	8.7	8.7	30.4
Pure and Applied Sciences	3	13.0	13.0	43.5
Economic, Finance and Management	6	26.1	26.1	69.6
Education	6	26.1	26.1	95.7
others	1	4.3	4.3	100.0
Total	23	100.0	100.0	



**Table 2. Reliability of the questionnaire based on the pilot test**

Reliability statistics	
Cronbach's Alpha	No. of items
.927	44

In Table 6, the distribution of respondents based on field/specialization is demonstrated. The largest percentage of responses come from engineering, followed by computer sciences and information technology, and then economics, finance and management, while lowest come from medical, health and life science. This is reasonable as not all universities have medical and health sciences programs, while the high majority have engineering and computer science/information technology programs.

Table 7 shows the distribution of the respondents according to their experience. Faculty members with more than 15 years of experience were the top respondents, while others scored similar percentages.

For making the results of the main seven questions demonstrated in Table 8 more understandable and simpler to interpret, the researchers resorted to classifying the results in general and the Means of each question under three categories: Low, Medium and High, according to the equation:

**Equation 1:** Length of interval = (highest value in Likert scale—lowest value in Likert scale)/number of categories

$$L = (5-1)/3 = 4/3 = 1.33$$

For the interview questions, the three interview results were compared and analyzed. Responses to each interview question were analyzed individually to find common things as well as differences, and then individual as well as collective responses were connected to each other to extract ideas and impeded policies in these universities as described by the VPs.

## 5. Results and discussions

In this section, discussion of the results reported is highlighted. For the first research question “What measures did Palestinian traditional universities take to ensure continuity of the education process during the pandemic?”, it was fulfilled through the data collected using questionnaire. In addition to that, results of three interviews with vice presidents for academic affairs at three universities were used to answer this research question. Data from 7 items of the questionnaire concerned with measures and procedures taken by universities during the pandemic, particularly in the second semester of the academic year 2019–2020, were analyzed as shown in Table 9. The mean value was interpreted and clarified by using three categories: high, medium and low according to equation 1 above:

This is indicated in Table 8.

Table 9 clearly shows that the average of mean for all seven items is 3.92 which is considered high, indicating that respondents overall agree with measures taken by universities. On the other hand, the average standard deviation for all seven items is 0.918, which indicates that the overall responses are not far from the average mean. This in turn indicates that there is an acceptable normal distribution. With the exception of items 4 and 7 of Table 9, all items has standard deviation below 1.0.

**Table 3. Case processing summary and reliability**

	<b>N</b>	<b>%</b>	<b>Cronbach's Alpha</b>	<b>No. of items</b>
Cases				
Valid	249	100.0	0.873	48
Excluded <sup>a</sup>	0	.0		
Total	249	100.0		

Note: A. List wise deletion based on all variables in the procedure.

**Table 4. Gender distribution**

	Frequency	Percent	Valid percent	Cumulative percent
Female	67	26.9	26.9	26.9
Male	182	73.1	73.1	100.0
Total	249	100.0	100.0	

**Table 5. Distribution of respondents according to university**

	Frequency	Percent	Valid percent	Cumulative percent
Valid				
University-1	50	20.1	20.1	20.1
University-2	86	34.5	34.5	54.6
University-3	12	4.8	4.8	59.4
University-4	12	4.8	4.8	64.3
University-5	6	2.4	2.4	66.7
University-6	27	10.8	10.8	77.5
University-7	19	7.6	7.6	85.1
University-8	6	2.4	2.4	87.6
University-9	4	1.6	1.6	89.2
University-10	27	10.8	10.8	100.0
Total	249	100.0	100.0	

**Table 6. Distribution of respondents according to field/specialization**

Field/specialization	Frequency	Percent	Valid percent	Cumulative percent
Valid				
Social Sciences	20	8.0	8.0	8.0
Arts and Humanities	23	9.2	9.2	17.3
Engineering	47	18.9	18.9	36.1
Computing Sciences & Information Technology	42	16.9	16.9	53.0
Pure and Applied Sciences	31	12.4	12.4	65.5
Medical, Health and Life Sciences	12	4.8	4.8	70.3
Economic, Finance and Management	35	14.1	14.1	84.3
Education	24	9.6	9.6	94.0
others	15	6.0	6.0	100.0
Total	249	100.0	100.0	

**Table 7. Distribution of respondents according to experience**

	Frequency	Percent	Valid percent	Cumulative percent
Valid				
	(<5 years)	47	18.9	18.9
	(5-10) years	56	22.5	41.4
	(10 > -15) years	50	20.1	61.4
	More than 15 years	96	38.6	100.0
	Total	249	100.0	

**Table 8. Interpretation of mean value**

Range	Meaning
[1-2.33]	Low
[2.34-3.67]	Medium
[3.68-5]	<b>Meaning</b>

It is clearly noticed that 85.5% of respondents highly agree or agree that universities have taken the decision to move to e-Learning at the right time. The overall mean for this question was 4.18; which is considered high; while only 10.8% were neutral and only 36% did not agree with that. This clearly indicates that the decision to move to e-Learning was taken at the right time according to faculty members. This is in line with what vice presidents for academic affairs reported in the interviews as the preparation to move to e-Learning was done within 1–2 weeks from the declaration of the emergency act by the Palestinian government. One of the VPs said “we start to update our ITC in February but we made things faster at beginning of March and we started to teach online on March 10th“. Evidences that support this claim can be clearly found in the press releases and announcements made by various universities. Example can be found in [Palestine Polytechnic University \(PPU; 2020-a\)](#) and [b](#); [BZU \(2020\)-a](#) and [b](#); [PTUK \(2020\)](#), [Abu Alrub \(2020\)](#), ([Palestine Polytechnic University \(PPU\), 2020-b](#)) where it clearly shows that the move was quick to adopting e-learning. It seems that the quick measures and preparations by universities, such as meetings; committees formulation; building on past experiences of Israeli military imposed closures among other things, according to VPs, have all helped in taking such decision and implementation. “We had experiences where the university was closed several times; both for short or long period; by the Israeli forces, and we had to continue teaching in the traditional way by either extend the semester and do some make-up classes or use off-campus classrooms to continue” one of the VPs said. In addition to that, the acceptance of such measures by faculty members and their abilities to handle similar situations in the past has helped in this direction. This is generally in line with what Crawford et al. (2020) reported that most universities in developed countries have closed their campuses and shifted to Internet-based teaching and learning, while most developing and under-developed countries have closed all universities and schools. On the other hand, countries such as Brazil and Singapore, the decision was individual/local but not as a country policy (Crawford et al., 2020).

The third item of Table 9 is ranked high, the same as the first one with a mean of 4.18. It shows that 86.7% of respondents agree with this, while 3.2% disagree, and 10% were neutral. This result shows that the decision and actions taken by universities to resort to Internet-based learning have helped the government in implementing the emergency plan through keeping students home, while taken safety measures in-campus achieved students’ safety objective, and at the same time won faculty members satisfaction and support. This result is seconded by the VPs of academic affairs who assured that the existence of e-Learning units or centers at these universities has helped in easing and facilitating the move to e-Learning within this short time of about 1–2 weeks. It is also supported by the press releases and reports as shown in [Palestine Polytechnic University \(PPU; 2020-a\)](#) and ([PPU 2020-b](#)); [BZU \(2020\)-a](#) and [BZU \(2020-b\)](#); [PTUK \(Palestine Technical University-Kadoorie \(PTUK\), 2020\)](#) and [Jawabrah \(2020\)](#). These results are similar to what Yulia (2020) has reported that the educators move to Internet-based learning has helped the Indonesian government controlling the Covid-19 spread, and also in line with (Bensaid & Brahimi, 2020) which described how universities used several methods and means and how they adopt to internet-based learning in an effective way in coordination with their governments.

**Table 9. Arithmetic means and standard deviations for items (1–7) of section 3**

Item	SA%	A%	N%	D%	SD%	Arithmetic mean	St Dev.	Indication of arithmetic mean
1-My university has taken the decision to switch to E-Learning, because of the pandemic, in a timely manner	36.9	48.6	10.8	2.4	1.2	4.18	0.809	High
2-My university maintained the basic operation of Service and support departments during the pandemic	32.1	42.6	19.3	3.2	2.8	3.98	0.948	High
3-My university has maintained both teaching and protecting students	34.9	51.8	10.0	3.2	0.0	4.18	0.739	High
4-My University has provided a new framework to control the quality of E-Learning.	21.7	36.9	<b>27.7</b>	10.8	2.8	3.64	1.022	Medium
5-My University made all administrative instructions available online.	24.9	44.6	22.9	6.8	0.8	3.86	0.898	High

(Continued)



**Table 9. (Continued)**

<b>Item</b>	<b>SA%</b>	<b>A%</b>	<b>N%</b>	<b>D%</b>	<b>SD%</b>	<b>Arithmetic mean</b>	<b>St Dev.</b>	<b>Indication of arithmetic mean</b>
6-My university adopted new assessment methods for completing second semester during the pandemic	24.5	49.8	18.5	4.8	2.4	3.89	0.912	High
7-My university had new policies regarding grading courses during pandemic (pass/fail, incomplete, normal grading)	23.7	47.0	12.4	<b>11.6</b>	<b>5.2</b>	3.72	1.107	High
<b>Average</b>						<b>3.92</b>	<b>0.918</b>	High

The second item “support and service units have maintained basic operations during pandemic” has scored second with a 3.98 high mean, where 74.7% of the sample agreed that these units have maintained basic operations during pandemic. On the other hand, 19.3% were neutral, and 6.0% disagree with that. This is in line with what VPs have said about universities’ preparing and equipping such units to maintain teaching and learning, and finish the semester. This result assures what was reported in King Abdulaziz university fourth plan (2020), which clearly indicates the importance of having and maintaining proper infrastructure, as the existence and readiness of electronic infrastructure; in addition to long experience in e-Learning systems and continuous training of faculty have a major role in smoothly transitioning to e-Learning with almost no serious obstacles. It is also consistent with what Jelińska and Paradowski (2021) have concluded in their research stressing the importance of proper long-term support for faculty members and students.

The sixth item “university adopted new assessment methods to finish second semester” ranked third with a high mean score of 3.89, where 74.3% indicate they strongly agree or agree with this. On the other hand, 18.5% of the sample was neutral and 7.2 disagree with it. The VPs answers assured this result as universities resort to a variety of new assessment methods. “We instruct faculty members to assign 60% for homework and reports and 40% for exams”, one VP said, while another said “We emphasized to faculty members to use assessment methods other than traditional exams”. However, the disagreement of some faculty with this item could be attributed to the fact that universities switched to e-Learning without training faculty on instructional strategies and assessments methods for e-Learning, or it could be that some of the faculty have used such methods previously. This result agrees with that of Bensaid and Brahimi (2020) that universities switched to Internet-based learning to ensure knowledge continuity, and the use of a variety of assessment methods. It also agrees with Cuaton (2020) and with that of Quezada, Talbot, & Parker (2020) in taking different measures regarding assessments and other learning activities.

The fifth item ranked fourth, scoring a high mean of 3.86, where 69.5% indicated an agreement with this question, while 22.9 were neutral, with 7.6% disagreeing, as shown in Table 9. The VPs said that universities relied on different electronic channels for announcements, instructions and communication with both staff and students. For those who disagree with this item, their response could be attributed to their reliance on official traditional methods of communications, and not following up with e-channels, due perhaps to lack of technological skills. This result goes along with that of Cuaton (2020), where certain measures and responses were implemented to assure the smooth information flow and psychological support to both students and employees.

Again, the seventh item ranked fifth; scoring a mean of 3.72. Among the responses, 70.7% agreed with this item, while 12.4 were neutral, and 16.8% disagreed as shown in Table 9. This is in line with VPs’ responses to similar questions, where they indicated that universities adopted different policies in this regard; as there was no official decision by the ministry. “We used the normal grading method” one VP said, while another said “we give fly belt to the faculty members for the assessment process such as oral exams, open exams, homework, online written exams, projects, paper work, research papers”. This in fact explains the responses of those who indicated their neutralism or disagreement with this item. It agrees also with Bensaid and Brahimi (2020) which shows that students were given the flexibility to reject accumulative grades once they are dissatisfied.

The fourth item in Table 9; ranked last; scoring an average mean of 3.64, where only 58.6% agreed with it, while 27.7% were neutral and 13.6% disagreed. The VPs indicated that measures and actions taken by universities were mainly centered around daily learning activities on e-Learning platforms, reports and resolving technical and technological issues aroused, in addition to issues related to plagiarism. These measures and activities in addition to students’ attendance tolerance indicate that universities did not adopt any framework or proper measures to assure quality in e-Learning. The “low” score of this item could be attributed to several reasons such as low level of readiness of universities, faculty members and students for e-Learning adoption. In

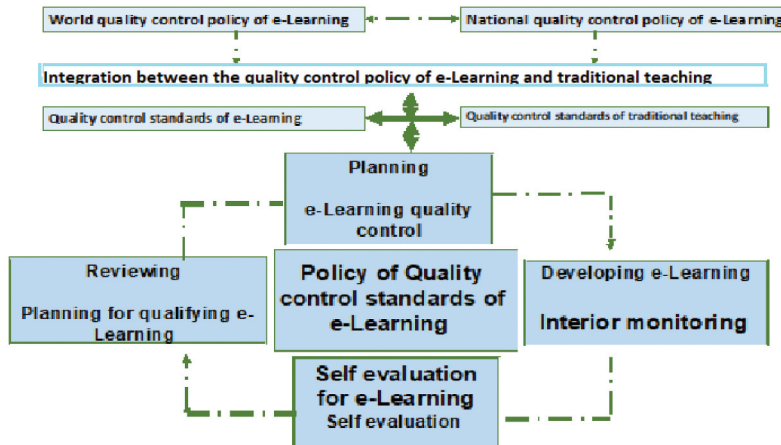
addition to lack of training, poor Internet services, students' inability to own needed devices, and on top of that all, the lack of clear policy and plan at universities to deal with such pandemic and emergency. It seems also that universities did not give much attention to quality; rather they were concerned with finishing the semester on time.

In general, these results are similar to those questions raised by Crawford et al. (2020) about the quality of higher education especially in low-income countries with limited resources whether it be technological, human or others.

For the second research question "What would be future policies to be adopted by Palestinian traditional universities to ensure continuity of education during and after the pandemic?"; the researchers tried to answer this question by:

- (1) Extracting procedures that need attention at university and ministerial levels, which emerged as a result of the discussing the first research question, such that;
  - Universities introduced new quality control framework for e-Learning
  - Universities adopted their own policies regarding final course-grades (pass/fail, incomplete, actual grade)
  - Universities adopted new assessment methods to end the semester
- (2) Analyzing results of VPs interviews, mainly in response to the following questions:
  - (a) What are the standards used to evaluate the university experience? VPs Answers varied, where some say they did not use any, rather they relied on statistics provided by the e-Learning platform or feedback from faculty and students through surveys, or their own observations on the outcomes.
  - (b) How could your experience affect the education process after the pandemic? VPs portrayed some of their own expectations such as: develop blended learning framework that is consistent with ministerial trends and vision, re-design the learning process within e-Learning setup, and introducing new academic program online
  - (c) Did all students have had fair and equal education? VPs claimed that universities have provided all they can, but it depended on students in doing the learning. They also said that learning opportunities were assured as high as 90%, as learning environment at the university side was maintained. However, the technical issues at students end—homes—remain a key limitation that universities could do almost nothing about.
- (3) Resorting to literature concerning university response during the pandemic, mainly that of José Sá and Serpa (2020), Yulia (2020), Crawford et al. (2020), Jena (2020)), and Cuaton (2020), and Quezada et al. (2020). These researches reported that during the first stage, though responses were prompt to switch to e-Learning, more attention should be directed to teaching and learning strategies, assessment for e-Learning, in addition to infrastructure at universities and homes, and providing fair opportunities for students to learn.
- (4) The researchers—as practitioners—who lived and were involved in such experience within their own universities, and based on the above, have proposed the following blueprint policies:
  - (A) **Adherence to e-Learning quality control policy.** The success of any educational system depends largely on how to adhere to quality standards of planning; execution; evaluation; and continuous improvements when adopting e-Learning. This indeed requires clearly adopted policy for controlling quality of educational system. To assure high-quality learning, the policy should not be isolated from the country-level quality control policy, nor the international quality policies. For this policy to be executed correctly there should be a clear methodology for quality control, taking into account elements of quality learning systems; technological, pedagogical, and administrative, where these elements should be monitored, managed and evaluated to control e-Learning quality. Figure 1 portrays a blueprint for the proposed policy:

**Figure 1. Adherence to e-Learning quality control policy.**



**(B) Continuity and comprehensiveness of assessment process in e-Learning policy.**

Assessment is an integral part in any education system, where students' progress has been monitored in knowledge; skills and values dimensions. Therefore, there should be a policy to assure the continuity of assessment in e-Learning side by side with teaching and learning process. This is needed to make sure that all goals and pedagogical competencies are met, while students are carrying out activities; to help identify and recover gaps in the learning process. In this context, comprehensiveness means assessing all dimensions of learning such as knowledge, values, and skills, by using variety of fair assessment methods taking into consideration students learning styles and capabilities, in addition to avoiding cheating. Therefore, the assessment method should be carefully planned and selected to correctly assess the objectives, while at the same time be complete and suitable. Figure 2 portrays the blueprint of proposed policy:

**(c) University readiness for emergency management policy.** In this context, it means all pre-setup measures and procedures to mobilize all human resources and utilizing available infrastructure to deal with crisis. It also means quick response to emergency, including readiness to deal with emergency, different scenarios based on situation assessment, and conducting surveys and opinion polls among employees and students. In addition to a decentralized decision-making process. Figure 3 illustrates this policy

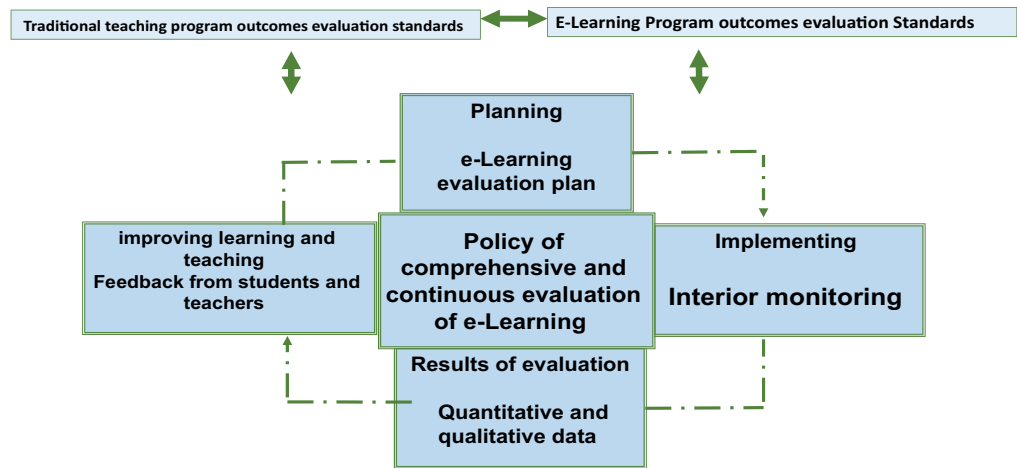
The researchers intend to validate these policies by having it reviewed by local and international experts, and through surveying those involved within the universities whether its management, employees or students.

**6. Conclusions**

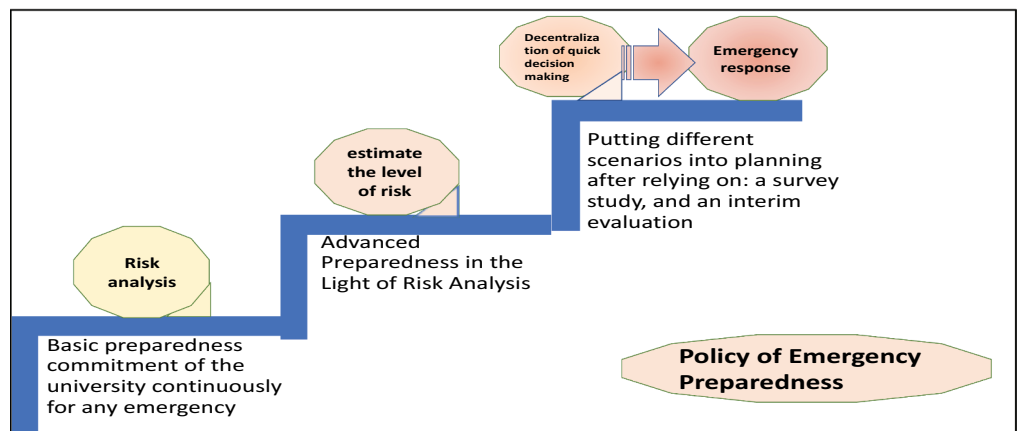
Based on the results and discussions, the researchers concluded that universities have moved to e-Learning in a timely manner, managed to maintain learning while assuring students' safety, maintained its basic services and support through respected units, adopted new assessment methods during pandemic, made all instructions and announcements available electronically and resorted to different policies regarding grading and final academic results.

On the other hand, although universities were quick in moving to e-Learning, it seems that they were not truly ready to deal with the pandemic. This is evident through the fact that there were no clear plans nor policies, and if existed, it was based on previous practices followed in emergencies due to closures caused by the second Intifada. A second reason is the lack of e-Learning

**Figure 2. Continuity and comprehensiveness of assessment process in e-Learning policy.**



**Figure 3. University readiness for emergency management policy.**



systematic management readiness, which resulted in various technical, technological, and educational problems for both students and lecturers. In addition, universities dealt with ease with some quality education measures while implementing e-Learning such as attendance. On the other hand, poor telecommunications and Internet service infrastructure on national as well as universities and homes is another reason. Moreover, some students did not own digital devices and finally, some lecturers lack basic technological skills to engage in e-Learning. However, universities in general resorted to Ad hoc instructions and procedure to continue teaching. Although universities had implemented some procedures and measures in shifting to e-Learning, these could not be considered as complete and comprehensive policies. However, it could be used as a base for further developing adequate emergency policies

### 6.1. Recommendations

Based on the results and conclusions above, researchers recommend that universities should adopt the proposed blueprint policies once *validated*, and should develop it further according to each university's vision and mission. Universities should build on and make good use of their own previous experiences dealing with emergencies. Furthermore, universities should join forces with

related ministries to push for better Internet services for e-Learning. In addition to that, universities should train their lecturers not only on technology but also on pedagogical dimension such as teaching/learning and assessment methods especially for e-Learning setup. On ministerial level, the ministry of higher education and scientific research should put forth a minimum assessment and evaluation standards for all universities to adhere to, while giving each university the authority to develop and improve its own further. On national and university level, a complete, clear and precise assessment and evaluation standards should be developed and implemented based on rigorous scientific and pedagogical principles in light of related international standards for e-Learning within emergencies.

This paper advances a proposed policy dialogue for the Palestinian Government and policy makers in Palestine. The researchers intend to test and validate these proposed policies as a continuation of this research, which will open the door to an evidence-based approach to reconstruction and sustainable development and put together immediate concerns of the present with an eye on the future. Now, more than ever, the need is to see beyond the requirements and constraints of COVID-19 and similar emergencies and act to secure gains in education based on the recent past. We recommend to undertake further research to measure the efficiency and effectiveness of e-learning in higher education sector in general and at Palestinian universities in particular as a representative of third world countries/low-medium income countries.

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#### Author details

Nuha Iter<sup>1</sup>

ORCID ID: <http://orcid.org/0000-0001-5562-3545>

Mervat Sharabati-Shahin<sup>2</sup>

ORCID ID: <http://orcid.org/0009-0005-6916-5246>

Refa' Jamal Ramahi<sup>3</sup>

ORCID ID: <http://orcid.org/0000-0002-0694-4921>

Ghassan Omar Shahin<sup>4</sup>

E-mail: [gshahin@ppu.edu](mailto:gshahin@ppu.edu)

ORCID ID: <http://orcid.org/0000-0001-9035-2074>

<sup>1</sup> Faculty of Arts and Educational Sciences, Palestine Technical University – Kadoorie, State of Palestine.

<sup>2</sup> Faculty of Administrative Sciences, Al-Istiqlal University, State of Palestine.

<sup>3</sup> Faculty of Education, Birzeit University, State of Palestine.

<sup>4</sup> College of Administrative Sciences & Informatics, Palestine Polytechnic University, Hebron State of Palestine.

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#### References

- Abu Alrub, N. (2020), *A message to PTUK students regarding current situation (in Arabic)*, <https://ptuk.edu.ps/ar/news?id=413>
- Bensaid, B., & Brahim, T. (2020). *Coping with COVID-19: Higher education in the GCC countries*. RIIForum, Athens, April 15-17. [https://www.researchgate.net/publication/342624704\\_COPING\\_WITH\\_COVID19\\_Higher\\_Education\\_in\\_the\\_GCC\\_Countries](https://www.researchgate.net/publication/342624704_COPING_WITH_COVID19_Higher_Education_in_the_GCC_Countries)
- Birzeit University (BZU). (2020-a), *A statement issued by the University Council regarding the state of emergency (in Arabic)*, press release on 11-3-2020, <https://www.birzeit.edu/ar/news/byn-sdr-n-mjls-ljm-bkhsws-hl-ltwry>
- Birzeit University (BZU). (2020-b), *An e-learning and teaching initiative launched by Birzeit University*, press release on 11-3-2020 (in Arabic), <https://www.birzeit.edu/ar/news/mbdr-lltlym-wltlm-llktrwny-tntlq-mn-jm-byryzt>
- Crawford, J., Butler-Henderson, K., Rudolph, J., Malkawi, B., Glowatz, M., Burton, R., Magni, P., & Lam, S. (2020). COVID-19: 20 countries' higher education intra-period digital pedagogy responses. *Journal of Applied Learning & Teaching*, 3(1), 9-28. <https://eprints.utas.edu.au/34123/2/138340%20-%20COVID-19.%2020%20countries%27%20higher%20education%20intra-period%20digital%20pedagogy%20responses.pdf>
- Creative Research Systems. (ND), *Sample size calculator* <https://www.surveysystem.com/sscalc.htm>
- Cuatón, G. P. (2020). Philippines Higher Education Institutions in the time of COVID-19 Pandemic. *Revista Romaneasca pentru Educatie Multidimensionala*, 12(1Sup2), 61-70. <https://doi.org/10.18662/rrem/12.1sup2/247>
- Hall, G. E., & Hord, S. M. (2015). *Implementing change patterns, principles, and potholes* (4th ed) (pp. 350). Pearson Education. 978-0-13-335192-7.
- Jawabrah, A. (2020), *Palestinian universities are racing to use e-learning to confront the Corona epidemic*. Al-Fanar media, press report (in Arabic), March, 12, 2020. <https://al-fanarmedia.org/ar/2020/03/%D8%A7%D9%84%D8%AC%D8%A7%D9%85%D8%B9%D8%A7%D8%AA-%D8%A7%D9%84%D9%81%D9%84%D8%B3%D8%B7%D9%8A%D9%86%D9%8A%D8%A9-%D9%88%D8%A8%D8%A7%D8%A1-%D9%83%D9%88%D8%B1%D9%88%D9%86%D8%A7/>
- Jelińska, M., & Paradowski, M. B. (2021). Teachers' engagement in and coping with emergency remote instruction during COVID-19-induced school closures: A multinational contextual perspective. *Online Learning Journal*, 25(1), 303-328. <https://doi.org/10.24059/olj.v25i1.2492>
- Jena, P. (2020). Impact of covid-19 on higher education in India. *International Journal of Advanced Education*

- and Research, 5(3), 77–78. [https://www.researchgate.net/profile/Pravat-Jena-3/publication/342277024\\_Impact\\_of\\_Covid-19\\_on\\_higher\\_education\\_in\\_India/links/5eeb7d2a299bf1faac5ee8ac/Impact-of-Covid-19-on-higher-education-in-India.pdf](https://www.researchgate.net/profile/Pravat-Jena-3/publication/342277024_Impact_of_Covid-19_on_higher_education_in_India/links/5eeb7d2a299bf1faac5ee8ac/Impact-of-Covid-19-on-higher-education-in-India.pdf)
- José Sá, M., & Serpa, S. (2020). The COVID-19 Pandemic as an opportunity to foster the sustainable development of teaching in higher education. *Sustainability*, 12(20), 8525. <https://doi.org/10.3390/su12208525>
- King Abdulaziz University. (2020). *The efforts of King Abdulaziz University within the framework of the national effort to confront the Covid-19 pandemic*. [https://vp-academic-affairs.kau.edu.sa/Files/838/Files/161566\\_kau\\_prevention\\_covid\\_19\\_report.pdf](https://vp-academic-affairs.kau.edu.sa/Files/838/Files/161566_kau_prevention_covid_19_report.pdf)
- Ministry of Higher Education and Scientific research MOHE. (2019). *Statistical reports of higher education for the years 2018-2019 and 2019-2020*, <https://www.mohe.pna.ps/services/statistics#>
- Ministry of Higher Education and Scientific Research MOHE. (2020-a). *Abu Mouais reveals the future of e-learning and the strategy of higher education in Palestine* <http://www.mohe.pna.ps/news>
- Ministry of Higher Education and Scientific Research MOHE. (2020-b). *A workshop discussing the effectiveness of e-learning in higher education institutions during the “Corona” pandemic* <http://www.mohe.pna.ps/news>
- National Center for Campus Public Safety-NCCPS. (2016). *National Higher Education Emergency Management Program Needs Assessment*, [https://www.nccpsafety.org/assets/files/library/NCCPS\\_EM\\_Needs\\_Assessment\\_FINAL\\_113016.pdf](https://www.nccpsafety.org/assets/files/library/NCCPS_EM_Needs_Assessment_FINAL_113016.pdf)
- Palestine Polytechnic University (PPU). (2020-a), *Palestine Polytechnic University adopts a remote/distance communication with its students, press release (in Arabic)*, <https://www.ppu.edu/p/ar/news/4547>
- Palestine Polytechnic University (PPU). (2020-b), *The Deans council meets to follow up on the academic process, press release (in Arabic)*, <https://www.ppu.edu/p/ar/news/4554>
- Palestine Technical University-Kadoorie (PTUK). (2020), *The vision of Palestine Technical University for education and e-learning and the evaluation mechanism, press release on 28-3-2020 (in Arabic)*, <https://ptuk.edu.ps/ar/news/?id=416>
- Qazehaq, K., & Shamis, T. (2020). *Managing the Impact of the Novel Coronavirus on Education Systems Around the World*, *World Bank Blogs*. World Bank (website). <https://blogs.worldbank.org/ar/education/managing-impact-covid-19-education-systems-around-world-how-countries-are-preparing>
- Quezada, R., Talbot, C., & Parker, K. B. (2020). From Bricks and Mortar to Remote Teaching: A Teacher Education Program's Response to COVID-19. *Journal of Education for Teaching*, 46(4), 472–483. <https://doi.org/10.1080/02607476.2020.1801330>
- Salmi. (2020). *COVID's Lessons for Global Higher Education*, *Lumina Foundation*. <https://www.luminafoundation.org/wp-content/uploads/2020/11/covid-lessons-for-global-higher-education.pdf>
- Toquero, C. M. (2020). Challenges and Opportunities for Higher Education amid the COVID-19 Pandemic: The Philippine Context. *Pedagogical Research*, 5(4), 4. <https://doi.org/10.29333/pr/7947>
- UNESCO. (2020). *Distance education, its concept, tools and strategies, a guide for policy makers in academic, vocational and technical education* <https://en.unesco.org/sites/default/files/policy-brief-distance-learning-f-1.pdf>
- United Nations. (2020). *Policy brief: During and beyond the COVID-19 pandemic*. [https://www.un.org/sites/un2.un.org/files/policy\\_brief\\_-\\_education\\_during\\_covid-19\\_and\\_beyond\\_arabic.pdf](https://www.un.org/sites/un2.un.org/files/policy_brief_-_education_during_covid-19_and_beyond_arabic.pdf)
- WHO. (2020), *WHO Director-General's opening remarks at the media briefing on COVID-19-11 March 2020*, <https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19—11-march-2020#:~:text=WHO%20has%20been%20assessing%20this,be%20characterized%20as%20a%20pandemic>
- Yulia, H. (2020). Online learning to prevent the spread of pandemic corona virus in Indonesia. *English Teaching Journal*, 11(1), .48–56. <https://doi.org/10.26877/eternal.v11i1.6068>



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