



Vol. 05 No. 03 (2023).

P. 647/665.

*The Status of Crisis Management in Algerian Higher Education  
(Emergency Remote Teaching in University of Ghardaia as an  
Example)*

SELMANI Adel <sup>\*(1)</sup>

TOAIBA Mohamed Samir <sup>(2)</sup>

CHRAA Meryam <sup>(3)</sup>

adelselmani7@yahoo.fr

tmsd2002@yahoo.fr

ch.meryam@yahoo.com

University Of Djelfa,

University Of Djelfa,

University Of Ghardaia,

Algeria <sup>(1)</sup>

Algeria <sup>(2)</sup>

Algeria <sup>(3)</sup>

Received:01/07/2023

Accepted :07/09/2023

**Abstract** This study aims to identify the evaluation of the learners of the University of Ghardaia - some Majors - of the ERT system that was adopted by UG during the COVID19 pandemic as a crisis management mechanism in the higher education sector, where, similar to the universities of the country and abroad, the ERT system has been relied upon, which differs from other systems related to education from after or e-learning. On the theoretical side, some basic concepts related to emergency education were presented. In the practical part, a survey was developed and built for the purpose of collecting data for evaluating each of:(the university's technological infrastructure/platform/professor/student). The results were analyzed based on the statistical EVIEWS program.

The results showed: revise this sentence) weakness in the university's response to the challenges of the pandemic with regard to the adoption of the ERT system and the continuity of education as required for the transition to emergency education.

**Keywords:** Crisis Management, ERT system, educational equity

**/JEL Codes :** M10

\*SELMANI Adel - TAIBA Samir - CHRAA Mariam

## 1. INTRODUCTION

Emergency Remote Education started with the COVID-19 pandemic bringing significant challenges to learners and teachers. Education has experienced by everyone in unprecedented ways that require research and understanding. (José Balderas-Solís, Ramón Hernández, Rolando Hernández, 2021)

The COVID-19 pandemic has revealed the existence of disparities in the educational systems in many countries, and education is no longer available to everyone in a fair and equal manner due to the weak capabilities of the infrastructure and the availability of the necessary devices to follow the distance learning process, in addition to other challenges that led to the accountability of the distance education process, in terms of concept. And tools, impact, and developing a vision for the shape of education and its strategies in the next stage, leading to how to evaluate it, through the optimal use of information and communication technology, and increasing investment in development programs in the field of education.

In this context, new forms of education have emerged called by many names such as (distance education / e-learning / self-learning / open education / home education ... etc.) ;as an “educational system to provide educational or training programs for learners or trainees at anytime and anywhere using Interactive information and communication technologies (such as the Internet, audio-visual media , CDs, etc.) to provide a multi- source interactive learning environment in a synchronous or asynchronous way in the classroom, without being bound to a specific place and interaction between the teacher and the learner.

### **1.1 Research Problem:**

In our country, especially the educational systems, it has become imperative for them to find effective solutions to these challenges that constituted major obstacles for those in charge of the educational process. We are indispensable today for an education that mixes various online and electronic forms and ensures that knowledge reaches everyone, of all races, of all classes, at all times, and everywhere.

E-learning occupies the forefront in education news in the world, and it has become very common in education in schools and universities, and has even become commonplace at the level of companies and institutions,

which made it easy to use it all the time and everywhere, through our mobile phones. and various communication devices, with the presence of the Internet. The spread of the pandemic, made us all together: (leaners, teachers, unions, parents, civil society...etc) to rethink the values and principles on which education should be based, and ask the following questions:

- How did our universities recommence studying in light of this pandemic?
- What are the roles of all the components of the educational process?
- What are the relationships should be established between all parties involved in learning?
- What are the most important challenges and obstacles facing our universities in light of the pandemic?
- The question is repeated after the transition to the “COVID19 crisis recovery” situation, does reliance on e-learning continue instead of traditional education in some cases?

## 1.2 Research Objectives:

To answer the problem posed and the partial problems that branch from it, a number of objectives have been formulated, which are as follows:

- Introducing some concepts related to emergency education and the most important thing that distinguishes it from e-learning.
- Getting acquainted with the assessment of students - in their capacity as the first beneficiaries of the education service - of the experience of the department to which they belong, by adopting the ERT system,
- Reaching conclusions and formulating recommendations in light of them.

## 2. Conceptual Background of emergency remote teaching:

### 2.1. basic concepts:

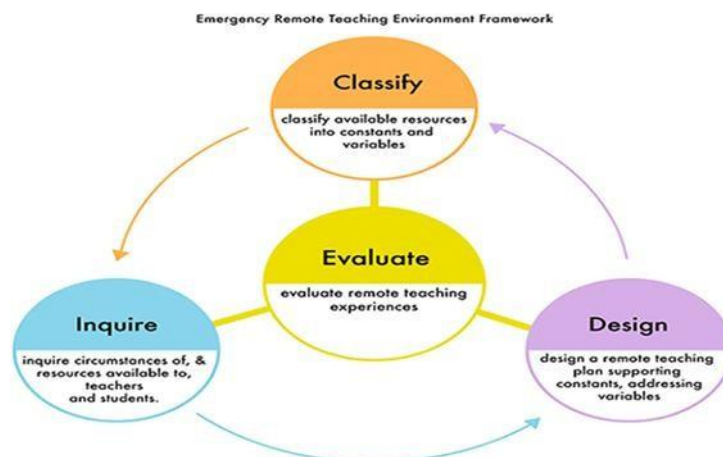
Crisis management has become a common content for the managers of organizations in view of the nature of the current business environment, which is influenced by the impact of globalization and high market dynamics. In this world, a crisis can be considered more or less permanent. This fact requires control and a prediction that will avert the potential disruption of the organization's balance and stability. In general, crisis management can be understood as a process that directs organization's activities for the purpose of capturing and evaluating the warning signals of a potential crisis. (Vasickova, Veronika, 2020, p. 61)

The recent novel coronavirus (COVID-19) crisis has affected humanity and education worldwide as continued learning amidst massive school closures required the unprecedented decision to make a rapid transition from in- person learning to remote online learning. This abrupt and temporary shift to remote online learning due to crisis circumstances was described as emergency remote teaching (ERT). (Minsun Shin & Kasey Hickey, 2021, p. 974)

Recently, the lockdown introduced worldwide in an effort to restrict the spread of

the COVID-19 pandemic forced the extensive recourse to virtual communications online teaching-learning, and remote working. However, the use of these means took place suddenly, without adequate planning, experimentation, and user training. The solutions have often been extemporized, especially in schools and universities, the closure of which has forced students, teachers, and administrative staff to operate from home using their own digital devices. In many cases, the already existing e-learning platforms have been improved with software tools allowing data sharing, collaborative working, and video conferencing. These tools have often been made available for free by some of the world's largest and most successful companies in the field of Information and Communication Technologies (ICT), such as Google, Microsoft, Amazon, and Zoom. (Marzano, Gilberto; Aleksandra Zajac, 2022, p. 22)

Many educational institutions around the world have closed their campuses in an attempt to slow down or contain the spread of COVID-19 to protect public health and safety, as of March 2020, the United Nations Educational, Scientific and Cultural Organization reported that the massive school closures affected 87 % of the world's students – over 1.5 billion learners in 165 countries. (UNESCO, 26 March 2020).and The following figure shows the components of the emergency remote teaching system:



**Figure 1:** The ERT Framework

**Source :** (Clayton Whittle, Sonia Tiwari, Shulong Yan and Jeff Williams , 2020, p. 315)

## 2.2. Emergency remote teaching: perspectives on educational equity

Clayton Whittle et al.2020 propose a framework to address moments of crisis in which teaching environments can only be understood circumstantially and supported provisionally. In addition to the likelihood of future wide-scale educational shutdowns because of outbreaks, wildfires, active shooter incidents and other situations may lead to increased ERTes in the future. For this reason, we assert that a new conceptual framework is necessary for understanding and planning learning in these environments. (Clayton Whittle, Sonia Tiwari, Shulong Yan and Jeff Williams , 2020, p. 312) In most cases students complain about the inequality in education and the difficulties in gaining access to educational resources, while faculties complain about students' engagement in ERT environment. Accordingly, one cannot merely focus on the benefits of adopting e-Learning in emergency situations, and must also take account of the quality of the virtual courses delivered in these circumstances. (Affouneh S, Salha S, Khlaif ,ZN., 2020, p. 135)

The speed of the reactions of educational institutions and their members is an admirable reminder of the flexibility and responsiveness of teachers and students in ensuring that the provision of a high-quality learning environment is maintained despite the adversity faced. Universities closed their campuses and whilst some international students remained in accommodation, the reality of continuing to provide higher education teaching and associated assessment became a high priority, for teaching, administrative, and technical staff alike virtually overnight. (Lambert, C.G.; Rennie, A.E.W., 2021, p. 282)

Now, as school districts and universities navigate the uncharted territory of COVID-19, educators, researchers and community leaders also face the challenge of developing equitable approaches to ERT for all students. Across K-12 and higher educational settings, historically marginalized communities have been disproportionately affected by inequitable educational conditions, which often result in negative academic outcomes. More than ever, there is a need to understand the realities of students impacted by existing educational inequities and how these students are being affected by sudden shifts to ERT across the USA. (Aguilera, Earl ; Nightengale-Lee, Bianca , 2020, p. 472)

COVID-19 has brought terrors to the situations of the most vulnerable countries and marginalized communities on a macro-scale. Not only has this pandemic affected millions of lives that ignited a worldwide crisis in the lens of health care and the economy, but it also outraged social and digital divides that heighten the gateways for neoliberalism to spiral during the pandemic. (Toquero, Cathy Mae D.; Calago, Redel A.; Pormento, Steven B., Neoliberalism , 2021, p. 90)

Obviously, COVID-19 has been a real test for higher education institutions around the globe in terms of their level of readiness, flexibility and adaptability in responding to similar global crises. Nevertheless, on a bright side, it serves as an effective 'change agent' for promoting rapid adoption of e-learning in such

classically change-resisting institutions. (Osman, 2020, p. 464)

From the previous definitions and perspectives, we conclude the following points:

- Distance education in emergency situations is a temporary solution for academic continuity amid a crisis,
- Online distance learning entails thorough planning of curriculum requirements for a well-designed online curriculum.
- Technological issues such as lack of equipment, internet outage, Flow of Internet service are features of remote emergency situation-at least in some third world countries-.
- There are large societal disparities such as human, social, economic and digital gaps that still exist due to the transition from traditional settings to distance education in emergency situations.

### **2.3. The Difference Between Emergency Remote Teaching and Online**

#### **Learning:**

Ambiguity surrounds the lexicon and definitions used when considering the differences between terms such as ‘distance’, ‘online’, ‘digital’, and ‘remote learning’, when taking account of characteristics of the learning environment and geographical interpretations of terms. (Moore, J.L.; Dickson-Deane, C.; Galyen, K. , 2011, p. 129)

Often, universities already have these tools at their disposal, with some faculty members choosing to utilize them in-person classes to support in- person learning. However, because of the crisis, even faculty members who were highly resistant to these technologies have had to use them to finish instruction for the Spring 2020 semester. Additionally, the faculty quickly discovered that ERT has different challenges than planned online learning or teaching in-person (e.g., constrained resources). While universities offered what resources they had to



help faculty adapt to the technical aspects of their new reality, they could not completely prepare them for the pedagogical challenges that result from teaching remotely during a crisis. (Laura A. Gelles , Susan M. Lord , Gordon D. Hoople , Diana A. Chen and Joel Alejandro Mejia, 2020, p. 304)

In contrast to experiences that are planned from the beginning and designed to be online, emergency remote teaching (ERT) is a temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances. It involves the use of fully remote teaching solutions for instruction or education that would otherwise be delivered face-to-face or as blended or hybrid courses and that will return to that format once the crisis or emergency has abated. The primary objective in these circumstances is not to re-create a robust educational ecosystem but rather to provide temporary access to instruction and instructional supports in a manner that is quick to set up and is reliably available during an emergency or crisis. When we understand ERT in this manner, we can start to divorce it from "online learning." There are many examples of other countries responding to school and university closures in a time of crisis by implementing models such as mobile learning, radio, blended learning, or other solutions that are contextually more feasible. For example, in a study on education's role in fragility and emergency situations, the Inter-Agency Network for Education in Emergencies examined four case studies. One of those cases was Afghanistan, where education was disrupted by conflict and violence and schools themselves were targets, sometimes because girls were trying to access education. In order to take children off the streets and keep them safe, radio education and DVDs were used to maintain and expand educational access and also were aimed at promoting education for girls. (Hodges, C.; Moore, S.; Lockee, B.; Trust, T.; Bond, A., 2020)

Bozkurt and Sharma (2020) argued that: Online distance education involves more than simply uploading educational content, rather, it is a learning process

that provides learners agency, responsibility, flexibility and choice. It is a complex process that requires careful planning, designing and determination of aims to create an effective learning ecology. In appearance, we are currently engaged in seems like online distance education, however, in essence, this is rather a temporary solution, one that would be more properly named emergency remote teaching. In other words, online distance education is one thing and emergency remote teaching is another thing. Such a distinction is important, because the degree to which educators believe in distance education these days will play a significant role in the prosperity of distance education in a post-COVID world. (Bozkurt, A., & Sharma, R. C., 2020)

In such a critical time, there has been a drastic change in how teaching and learning happen while learners are physically out of schools and separated from their teachers and co-learners. The educational practices during the Covid-19 pandemic are denoted with different terms in different countries (e.g., distance education, e-learning, online education, homeschooling, etc.). However, these terms do not quite capture what is being practiced during the interruption of education, which can better be described as emergency remote education (ERE). Considering that the terms used in different countries are derivations of distance education, as a generic term, the remarkable difference between emergency remote education and distance education is that the latter is an option while the former is an obligation. Such an understanding is crucial because misconceptions in definitions would lead us to misconceptions in practices. Distance education, for instance, is a planned activity and its implementation is grounded in theoretical and practical knowledge which is specific to the field and its nature. On the other hand, emergency remote education is about surviving in a time of crisis with all resources available, including offline and/or online. (Bozkurt, A, Jung, I, Xiao, J, et al., 2020, p. 126) The following table briefly explains the differences:

**Table 1: Online Learning vs Emergency Remote Teaching**

<b>Online Learning</b>	<b>Emergency Remote Teaching</b>
Instructors have experience and	Instructors may have no experience with
knowledge with online platforms.	online instruction and platforms.
Delivery methods have been planned and prepared over a period of months or years.	Delivery methods have to be urgently chosen.
Materials are designed for online teaching.	Materials are designed for classroom teaching.
Platforms and infrastructure receive suitable investment.	Platforms and infrastructure may not be up to the task or budgeted for.
Online learning is chosen by students.	Online learning is not chosen by students.

**Source:** (Lafleur, L., Andrews, R., Raichura, T., Fusco, W., & Fuisting, B, 2021, p. 126)

### **3. Method :**

To make sure that this practices of **Emergency remote teaching** are achieved at the level of our Algerian university - the University of Ghardaia in particular - It has become necessary to evaluate the students' experience of the concept of emergency education during the pandemic in **the academic year 2020/2021**, by asking the following questions:

#### **3.1. practical questions:**

- How do you **evaluate the experience** of the Finance and Accounting Department of the emergency distance education system?
- What are the most important **obstacles** that you encountered as a party in the educational process?
- What are the most important **solutions** that you consider appropriate to overcome the problems of emergency education?

### 3.2. Approved Methodology:

To solve the study problem, it was based on **descriptive approach** was adopted to present theoretical concepts in the theoretical part and to review and describe the experience of the University of Ghardaia represented by the Department of Finance and Accounting in its adoption of the ERT system, to ensure the continuity of education in light of the pandemic.

**Table 2:** Means and standard deviations for items

Dimensions	Item	M	SD
<b>Evaluate module on the platform</b>	Explanation of the content and objectives of module	1.55	0.676
	Explanation of evaluation and examination methods	1.59	0.669
	The possibility of communicate and interact with the professor of the subject	1.00	0.555
	Presenting the content of the module informat that attract the attention of learners	0.97	0.453
		<b>1.26</b>	
<b>Platform usage evaluation</b>	Instructions explaining how to enter the platform	1.67	0.689
	Instructions on how to use links	1.56	0.767
	Ease of use of the platform	1.77	0.558
	Lack of technical faults in platform	2.26	0.451
	Download speed	1.56	0.623
		<b>1.44</b>	

<b>Assessment of teacher skills</b>	The teacher's skill in using virtual classroom tools	1.68	0.823
	Management of simultaneous electronic lectures	0.88	0.798
	Diversification of digital learning strategies	0.98	0.688
	Stimulating activities for interaction and participation with learners	1.45	0.778
		<b>1.22</b>	
<b>Technological infrastructure for digital transformation</b>	The university has a technological infrastructure (laboratories, computers, internet...etc.)	1.48	0.445
	Updating equipment and computers and providing maintenance for them	1.34	0.545
	Availability of various digital educational resources (digital library, digital data sources etc.)	1.57	0.559
		<b>1.45</b>	
<b>Assessment of the learner's skills</b>	have skills to deal with the platform	1.78	0.897
	Have computer skills	1.67	0.658
	The ability to interact and employ virtual classroom tools	1.76	0.876
	I can own a computer and a strong internet network.	0.87	0.456
		<b>1.52</b>	

**Prepared by researchers based on the results of EVIEWS**

The questionnaire was distributed to students in the second year of the master's level: Auditing, Finance, Accounting - **A non-random sample was taken, their number reached:82 and the questionnaire was distributed through the Google Classroom platform** -, in order to evaluate the ERT system in terms of:( Evaluate module on the platform, Platform usage evaluation,

Assessment of teacher skills, Technological infrastructure for digital transformation, Assessment of the learner's skills). Their perceptions were measured using a 3-points Likert scale: high, medium, and low. Where the adopted analysis scale was: from 1 to 1.66 low / from 1.67 to 2.33 medium / from 2.34 to 3 high, knowing that **the number of responding students amounted to accounting: 28, auditing: 17, financial: 12**. The total arithmetic mean for all dimensions was 1.36, which is generally a low average and indicates the weakness of the university's adoption of the practices of the emergency education system in all its dimensions, according to the students' opinion. The dimensions were arranged in order of importance as follows :( assessment of the learner's skills, technological infrastructure for digital transformation, platform usage evaluation, assessment of teacher skills, evaluate module on the platform) and their averages are shown in the previous table.

### **3.3. Obstacles that prevent the success of ERT system**

#### **✓ For teachers:**

we note that teaching online can also be done through social media platforms, especially when a learning management system (LMS) is not available, it can still be taxing for some teachers, especially those who do not have online pedagogy skills. Apart from making the teaching materials suitable for online teaching and learning, teachers may also face the dilemma of teaching methodology and strategy to employ online. More often than not, these issues can have a negative impact on the learners if left unresolved. Hence, providing teachers with professional development training to cope with online teaching demands is vital. Since teachers are the ones who perform the task of teaching, create an effective learning environment for students, and solve classroom problems for successful teaching and learning, continuous teacher development programs should be given importance, such programs will prepare teachers, especially in times of emergency, to move their classes online. (Ulla, MB and Perales, WF, 2021, pp. 3-4)

✓ **For learners**

Generally, the lack of students' interaction, lack of time to do assessment and feedback, and students' lack of concentration may be considered common problems faced by teachers around the world during the pandemic. This is because teachers only have the computers in front of them and can hardly monitor their students. They cannot easily assign their students to group tasks since they are in different places virtually. They may not also provide time for assessment and feedback since they are online, where internet connectivity may sometimes be a problem. Although the internet may have provided them with some ways to effectively teach and learn, online teaching and learning is a new environment for both teachers and students. They may need some time to adjust to the new modalities of teaching and learning. (Ulla, MB and Perales, WF, 2021, p. 7). However, migrating to online teaching has also brought positive effects to teachers pedagogically. Teachers agreed that since shifting to online teaching was a new experience for them, they learned a lot from their experiences. They learned to make their lessons suitable for online teaching and learning.

They became creative and resourceful teachers since they had to make sure that they could deliver the lessons effectively to their students. (Mukhtar, K, Javed, K, Arooj, M and Sethi, A, 2020) .

**3.4. Suggestions:**

In addition to dealing with the present problems, policymakers and educational leaders must look forward and better prepare for what lies ahead. The above lessons provide a valuable opportunity to consider what has been done well and what can and must be done differently in education in the future. \* (Zhixuan, 2021, p. 296)

- ✓ **For policymakers**, it is necessary to formulate strategies to support online education initiatives and provide all possibilities and needs for learners and

teachers in order to bridge the gap and inequality and achieve justice in the virtual accessibility of all available educational media.

- ✓ **For teachers**, learn to adapt and use open educational resources appropriately rather than spend time producing poor-quality resources of one's own. Teachers and faculty members need to continuously improve technical skills and develop effective pedagogical strategies to provide high-quality remote education. In addition, peer collaboration and support using social media are strongly recommended as most schools and universities suffer from a lack of resources. Finally, reflecting on successes and failures as well as integrating lessons learned into routine work after the crisis is also needed.
- ✓ **For students**, they should become self-directed learners as the Internet offers great learning opportunities. Besides, learners should take the initiative to handle their technical limitations and they should also learn how they can integrate the technological advancements into their career communication. Students could also share feelings or experiences frankly with peers or teachers if cannot overcome negative emotions.

#### 4. Conclusion:

During the period of the pandemic crisis, which resulted in many problems, especially in the educational field, distance learning in general is not a permanent and final solution to these problems, especially since many learners across the world suffer in silence from unequal access to distance education through computers. And the flow Internet, which Blow up the efforts of the university in this field, in addition to the lack of preparedness and readiness to adopt the emergency education system in terms of the teacher or the learner or the technological infrastructure that guarantees the minimum level of equality and equal opportunities among all components of the higher education system.



## Acknowledgements

*We would like to extend my sincere thanks to the second-year master students for their participation, and seriousness in completing this research by filling out the questionnaires.*

## 5. Bibliography List :

Affouneh S, Salha S, Khlaif ,ZN. (2020). Designing Quality E-Learning Environments for Emergency Remote Teaching in Coronavirus Crisis. *Interdiscip J Virtual Learn Med Sci*, 11(2), 135-137.

Aguliera, Earl ; Nightengale-Lee, Bianca . (2020). Emergency remote teaching across urban and rural contexts: perspectives on educational equity. *Information and Learning Sciences*, 121(5(6)), 472. doi:<https://doi.org/10.1108/ILS-04-2020-0100>

Bozkurt, A, Jung, I, Xiao, J, et al. (2020). A global outlook to the interruption of education due to COVID-19 pandemic: Navigating in a time of uncertainty and crisis. *Asian Journal of Distance Education*, 15(1), 1–126.

Bozkurt, A., & Sharma, R. C. (2020). Emergency remote teaching in a time of global crisis due to Corona Virus pandemic. *Asian Journal of Distance Education*, 15(1). doi:<https://doi.org/10.5281/zenodo.3778083>

Clayton Whittle, Sonia Tiwari, Shulong Yan and Jeff Williams . (2020). Emergency remote teaching environment: a conceptual framework for responsive online teaching in crises. *Information and Learning Sciences* , 121(5-6), 311-319.

José Balderas-Solís,Ramón Hernández,Rolando Hernández. (2021). Experiences of undergraduates' emergency remote education in Mexico. (2000846, Éd.)*Cogent Education*, 8(1). doi:[10.1080/2331186X.2021.2000846](https://doi.org/10.1080/2331186X.2021.2000846)

Lafleur, L., Andrews, R., Raichura, T., Fusco, W., & Fuisting, B. (2021). Students' Experiences of Emergency Remote Teaching. In P. Clements, R. Derrah, & P. Ferguson (Eds.), *Communities of teachers & learners*. JALT. doi:<https://doi.org/10.37546/JALTPCP2020->

Lambert, C.G.; Rennie, A.E.W. (2021). Experiences from COVID-19 and Emergency Remote Teaching for Entrepreneurship Education in Engineering Programmes. *Educ. Sci.*, 282. doi:<https://doi.org/educsci1106028210.3390>

Laura A. Gelles, Susan M. Lord , Gordon D. Hoople , Diana A. Chen and Joel Alejandro Mejia . (2020). Compassionate Flexibility and Self-Discipline: Student Adaptation to Emergency Remote Teaching in an Integrated Engineering Energy Course during COVID-19, Ed.

Marzano, Gilberto; Aleksandra Zajac. (2022). Emergency Remote Education and Smart Working at Three European Higher Education Institutions. *International Journal of Web-Based Learning and Teaching Technologies(IJWLTT)*, 17(6), 22.

Minsun Shin & Kasey Hickey. (2021). Needs a little TLC: examining college students' emergency remote teaching and learning experiences during COVID-19. *Journal of Further and Higher Education*, 45(7), 973-986.

Moore, J.L.; Dickson-Deane, C.; Galyen, K. . (2011). e-Learning, online learning, and distance learning environments: Are they the same? *Internet High. educ*, 14, 129–135.

Mukhtar, K, Javed, K, Arooj, M and Sethi, A. (2020). Advantages, limitations and recommendations for online learning during COVID-19 pandemic era. *Pakistan Journal of Medical Sciences*, 36(COVID19-S), S27–S31. doi:DOI: <https://doi.org/10.12669/pjms.36.COVID19->

Osman, M. E. (2020). Global impact of COVID-19 on education systems: the emergency remote teaching at Sultan Qaboos University. *Journal of Education for Teaching*, 46(4), 463-471. doi: DOI: 10.1080/02607476.2020.1802583

Toquero, Cathy Mae D.; Calago, Redel A.; Pormento, Steven B., Neoliberalism . (2021). Crisis and the Pitfalls and Glories in Emergency Remote Education. *Asian Journal of Distance Education*, 16(1), 90.

Ulla, MB and Perales, WF. (2021). Emergency Remote Teaching During COVID19: The Role of Teachers' Online Community of Practice (CoP) in Times of Crisis . *Journal of Interactive Media in Education*, 1(9), 1–11. doi:DOI: <https://doi.org/10.5334/jime.617>

UNESCO. (26 March 2020). UNESCO rallies international organizations, civil society and private sector partners in a broad Coalition. Récupéré sur <https://en.unesco.org/news/unesco-rallies-international-organizations-civil-society-and-private-sector-partne>

Zhixuan, L. (2021). A Comparative Study of Emergency Remote Education Amid COVID-19,. *International Journal of English Literature and Social Sciences* , 6(3), 296.