COVID-19 CHALLENGES AND NEW LEARNING POSSIBILITIES AND REALITIES IN NIGERIA: PERSPECTIVES OF SOUTHWEST NIGERIA

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ABSTRACT: In the early 2020s, there was a noticeable large-scale transition to remote/distance learning by educational institutions and learners in Nigeria due to the COVID-19 pandemic. The pandemic restricted the movement of people, thereby affecting businesses, including education. Nevertheless, many people continue to learn through remote learning, also known as open and distance learning. This study examined the real and imagined difficulties associated with the transition to remote learning to establish institutional and individual responses to this new challenge. This was undertaken especially to determine how prepared these institutions and personnel were, the possible challenges inherent in remote learning, and the challenge of harmonizing and regulatory frameworks necessary for them to thrive in line with UNESCO's guidelines for operating ODL programs. The study adopted a qualitative approach in which in-depth personal interviews were used to generate data for analysis. Findings arising from answers to the interview questions in this study showed that knowledge of this pedagogy by critical stakeholders is quite high and can guarantee the required level of adoption among critical stakeholders. These findings indicate that the remote learning concept, although fairly new, has prospects for modifications, adaptations and proper guidelines from the appropriate quarters. The idea that stakeholders believe in the potential of remote learning to change the education trajectory is welcoming, as it has the potential to drive its implementation in the right direction.

Keywords: COVID-19 Pandemic, Regulatory Frameworks, Remote Learning, UNESCO Guidelines

INTRODUCTION

In the last few years, there has been a large-scale transition into remote/distance learning by educational institutions and learners in Nigeria and perhaps across the globe, occasioned by COVID-19 pandemic – which conscripted movement of people thereby also affecting businesses, including education. The lock-down of institutions brought notable challenges to the conventional face-to-face method of teaching and learning – a situation that invariably affected education across the board (Lederman, 2020). Accordingly, institutions and individuals are attempting to respond to this new challenge by introducing or strengthening 'learning from a distance' or remote learning. This major movement, however, appears to be knee-jerked considering that, before now, only a few institutions in Nigeria were engaged in real, professional, well-organized and structured distance learning methods of education. One of the COVID-19-driven methods of learning that differ markedly from conventional

methods is home-based learning. Nasir (2020) reported that while schools are closed due to the lockdown and stay home order, UNICEF continues to support state governments in managing and monitoring home-based learning for children in Nigeria even as many families adapted to the new realities.

This emergent trend of new technology-driven distance teaching and learning is expectedly exposing new challenges. Nevertheless, success or failure in this endeavour will depend on how much the operators understand the concept, their skills set, and the government's readiness to provide a regulatory framework for quality control and standardization. As UNESCO (2017) reported, making higher education delivery via open and distance learning (ODL) more inclusive for learners is important; however, without establishing appropriate frameworks and creating an enabling environment for its take-off, the anticipated benefits may be lost.

With the evolution of this new learning method gaining ground and increasing sophistication compared with the well-known and practiced face-to-face physical methods, many implications are expected both for learners and institutions as well as the government. First, the whole concept of learning at a distance hinges on technology; this also hinges on adequate knowledge of technology and how it works; again, all depends on physical infrastructures not to talk of strong and dependable human resources—all of which continue to evolve and increase with time.

According to the National Universities Commission, an appraisal of the scope of learning at a distance in Nigeria in relation to the potential for increasing access to education for all sociocultural groups reveals a mismatch between policy and practice despite the obvious and widely acknowledged perennial inadequacies of the conventional face-to-face mode in meeting the higher educational aspirations of Nigerians, especially in the university subsector. (NUC, nd.). This view by the National Universities Commission presupposes that emerging distance learning needs to be properly managed and operated in combination with good and relevant policies if we must avoid the problem of besetting the present face-to-face pedagogy. However, how do we identify or know exactly where to look out for gaps and problems to address them appropriately? Who are the stakeholders that are crucial in the process of entrenching workable and productive remote learning in the country?

In providing guidelines for planning and implementing open and distance learning (ODL) programs for youth and adult literacy, the UNESC Institute for Lifelong Learning listed four (4) steps necessary for operating a successful remote learning program (COL, 2020).

1. Planning and designing an ODL-based literacy programme;
2. Development of instructional and learning materials;
3. Implementing and managing ODL literacy programmes; and
4. Monitoring and evaluation of ODL literacy programmes.

Considering all the steps set forth by UNESCO, it is imperative to determine the extent to which Nigerians who are desirous of running or participating in remote learning are aware of and adhering to and implementing these steps for success, hence the need to explore these relevant themes and questions.

Statement of the Problem

Many organizations were latching on, or purporting to latch on, to the new opportunity in remote learning, creating the impression that a new normal in education administration had just taken root. Institutional and individual responses to this new challenge – strengthening 'learning from a distance or remote learning, deploying internet-enabled online teaching and learning – are important steps towards closing the gap caused by COVID-19. The problem arises about how prepared these institutions and personnel are, the possible challenges inherent in remote learning, and the challenge of harmonization and regulatory frameworks necessary for it to thrive. In line with UNESCO's guidelines for operating ODL programmes, Nigerians are planning and designing ODL-based literacy programmes; developing instructional and learning materials; implementing and managing ODL literacy programmes; and monitoring and evaluating ODL literacy programmes. This research hopes to identify the key areas of need and provide empirical evidence to support the efforts of institutions and educators in this regard. The ultimate aim of the new method is to expand the education landscape, explore the gap exposed by the COVID-19 lockdown and identify viable solutions to effectively implement and, importantly, manage the influx into the new era. Therefore, this study is imperative in describing the path to the new normal education delivery method expected globally, and Nigeria is not an exception.

Research Objectives

The research objectives for the study are as follows:

1. To determine the extent to which stakeholders in Nigeria understand the concept of remote learning.
2. To determine the preparedness of stakeholders as they migrate to remote learning.
3. To identify likely challenges encountered by critical stakeholders in the process.
4. To explore what further opportunities are possible from distance learning options among Nigerians and,
5. To highlight the needed harmonization and regulatory frameworks necessary for new initiatives to thrive in Nigeria.

LITERATURE REVIEW

In social and management sciences research, it is customary to begin an academic investigation by examining the conceptual and theoretical contours of the subject matter of analysis by analysing the views of various scholars and authors as well as the way in which one's research is integrated into the body of existing theories and research (Igbokwe-Ibeto, 2019).

Conceptual Review

In view of the above and for the purposes of this literature review, the term "remote learning or distance education" refers to various modalities of offering courses outside the parameters of the traditional classroom. Historically, correspondence courses were centeredon privileged learning methods, followed by teleconferencing, videoconferencing, and finally the

development of online courses. In the words of Markov, Yavnai, Lafrenière, Woodford and Karki (2021), when the pandemic necessitated pivoting from face-to-face classes, the term "remote" learning was adopted by many academic institutions. In this report, the data gathered focus on "remote" teaching and learning; however, scholars often utilize the term "distance education" as a reference to its history prior to 2020. In addition, the concept of remote learning or distance education uses "synchronous" and "asynchronous" to refer to courses taught in real time and at one's own pace, respectively.

A comprehensive definition is given by the Commonwealth of Learning: it is important to note that the philosophy of distance education and the principles underlying it are not exclusive to the learner population targeted. This is in reference to the misconception that open and distance learning only targets those who cannot afford the resources to access traditional conventional face-to-face education or those who are academically inferior. In contrast, open and distance learning is an inclusive instructional platform that caters to anyone who desires good education but is constrained by factors such as distance, age, time, occupation and other circumstances related to attending campus-based education.

In a stable and conflicting environment, high-quality virtual learning allows students to collaborate and communicate with peers and instructors and potentially identify with new social and academic communities at their institutions (Bryd, 2016; The Globe and Mail, 2020). According to Bryd (2016), online interaction assists many students in feeling a sense of belonging, resulting in a willingness to support peers, share with others, and feel responsible to their learning groups. As a result of the COVID-19 pandemic, many postsecondary students have enrolled and experienced remote learning; however, they report varying levels of satisfaction with this experience.

Furthermore, some authors have argued that successful online courses incorporate face-to-face teaching and student communication as much as possible (Teaching & Learning Services, 2020; O'Malley, 2017; Bryd, 2016). O'Malley (2017) opined that to engage students, courses should not have long lectures and instead focus on video and/or audio clips, hands-on exercises, and student discussions. O'Malley (2017) further argued that any information presented should be presented in 10-minute increments to keep students engaged and interested. O'Malley (2017) also noted that discussion groups should include a maximum of ten (10) students and that class sizes should be kept small, ranging from 20--30 students. In the same vein, Teaching and Learning Services (2020) of McGill University highlighted the importance of offering opportunities to learn to students in a variety of ways, such as breaking up long lectures and providing activities between them (The Globe and Mail, 2010).

Empirical Review

Zulaikha, Azlin, Khairul and Bity (2021) examined the effectiveness and challenges of online learning for secondary school students—a case study. This study employs a case study design because it is relevant for collecting rich data and information on a specific event that affects how individuals react and changes their behaviour (Chua, 2020). Owing to the sudden change in teaching and learning delivery during the Conditional Movement Control Order (CMCO), this situation might affect how they react and change their behaviour in online learning settings. In fact, this situation is still new, and little evidence is available on its effectiveness.

Therefore, in this study, to examine the effectiveness of online learning and the challenges that it presents to pupils' abilities to learn, a survey questionnaire was utilized.

According to Chua (2020), a survey questionnaire is helpful for providing direct information from respondents on their personal encounters, experiences and perceptions of an issue. A five-point Likert scale questionnaire that consists of two aspects, a) investigating students' perceptions of the effectiveness of online learning and b) the challenges related to their online learning facilities, was designed and distributed with the support of the class teacher. A total of 99 pupils, aged 15-16 years, from a single secondary school in Jasin, Melaka, were selected via the convenience sampling technique. This is because this study is not aimed at testing a research hypothesis to be generalized to the population but rather to develop an understanding (Chua, 2020) of students' perceptions of the effectiveness of online learning and the challenges related to their online learning facilities. In this study, from a total of 99 pupils, 63 respondents were female, and 36 were male. All of the respondents were receiving full-time online learning due to the CMCO, which was re-implemented from 9 November 2020 until 6 December 2020.

Ikegulu and Oranusi (2014) studied distance and open learning in Nigeria: progress, concerns and prospects. The study adopted a survey design. The study concluded that the distance education mode from all indications seems to offer a way out of the present problem of providing access to the burgeoning world population. The system is even more attractive because of its varied and flexible media of instructional delivery made possible by advancements in technology. Jimoh (2013) recommended that the government subsidize ODL programmes and improve the electricity supply to the nation; he also recommended that management should admit students in line with the available resources on the ground and make the criteria for the admission of students to be in line with conventional institutions, among others.

Hardcastle and Richardson (2009) examined the experiences of current and former remote students and suggested strategies to support remote students and enable them to successfully complete their courses. Sixty-eight contactable students indicated their willingness to participate. After multiple attempts to contact these eligible students, a total of 49 were interviewed. Students identified as 'remote' in the university database were contacted by telephone and/or email. Information about the study was sent by mail to students who could not be contacted by telephone or email. If they agreed, they were interviewed for approximately 45 minutes. The interviews were taped and transcribed. The data were then thematically analysed for patterns and consistency.

Theoretical Framework

Many theories may prove adequate for a study of this nature; however, for the purpose of this study, interaction and communication theory (Holmberg, 1987) is adopted. The theory states that by fostering empathy between the learner and the tutor through appropriate interactions, learners are motivated and encouraged to engage in their studies and master self-determined learning. Distance education theory states that the value of teaching is related to students' feelings of comfort and belonging and course discourse, including questions, answers, and debates (Holmberg, 1987). The Theories of Communications and Interactions summarize the

details of how learning is enhanced through the impact of communications and interactions between the learner and the instructor. Learners best interact and communicate with their teachers, fellow learners and even with the content. Central to teaching and learning in distance education are personal relations, study pleasure, and empathy between students and those representing the supporting organization. Feelings of empathy and belonging promote students' motivation to learn and influence learning favourably. The feelings are brought about by real dialogue (interaction in writing, telephone, computer and other media of the learner and simulated dialogue (interaction between the learner and the teacher)). Instructors write the content of the course in a personal, conversational way to motivate the learners, thereby allowing them to participate personally in the learning process.

RESEARCH METHODOLOGY

The research design adopted for this study was an in-depth personal interview, also known as an IPI or one-on-**one**, which was chosen because of its capacity to turn over the beliefs, behaviours and motivations of respondents. The interviews were in person with a prepared and formatted interviewing guide containing relevant questions drawn from the research questions. The research instrument was validated by the lead researcher.

Study population

The population of the study comprised educational institutions, learners and critical stakeholders in education institutions in Southwest Nigeria, which includes states such as Lagos, Ogun, Ondo, Osun, Ekiti, and Oyo states. Together, these factors have a significant population that can warrant study and generalization for the whole country. A sample size of 6 for the research—10% of 54 institutions—was drawn from the population and selected from these specific institutions for the interview sessions (Yamane 1967).The qualitative data were analysed via descriptive statistics where necessary and were reported in terms of themes and subthemes.

RESULTS

Analysing the research questions

Research question 1: To what extent do stakeholders in Nigeria understand the concept of remote learning?

One of the research questions posed to the interview respondents includes determining, among other things, their level of knowledge or understanding of what remote learning means. Thus, when asked, "*When the term, remote learning, is used, what comes to your mind as a stakeholder,*" various but related answers were given. While some answered that it is an opportunity to access education irrespective of distance place, others said that learning takes place without having to meet face-face but with the aid of technology, whereas others saw it as a new method of learning using technology-enhanced devise devoid of face-to-face. Another respondent described it as a method that "invokes a sense of correspondence education now facilitated by technology," yet another respondent summarized it as follows: "It is education from a far distance." The common theme in all the responses to the same

question is a matter of distance, lack of face-to-face and the presence of technology to enhance delivery.

To further determine the respondents' understanding of the concept, they were asked, a*t what time in your career did this term become known to you, that is, when did it become part of your educational vocabulary?* To answer this question, many of the participants/interviewees answered that they got wind of it slightly before or around the outbreak of COVID-19. Some specifically said, 'around the second quarter of 2020, I think during COVID-19,' whereas others pointedly mentioned, "Around the time when COVID-19 broke out," while others said, around the year 2020 during the COVID-19 outbreak, about three years ago and 'not up to four years.'

Table 1: Which of these explains your understanding of remote learning?

Definition of Remote learning		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Learning from distance	3	10.3	10.3	10.3
	Virtual learning	4	13.8	13.8	24.1
	The teacher and learner are in separate places without the need to see face to face	16	55.2	55.2	79.3
	Using technology to connect that learner and the teacher	6	20.7	20.7	100.0
	Total	29	100.0	100.0	

Source: Researchers' field interviews/surveys, 2023.

The above table shows that the consensus (79.3%) among participants is that remote learning involves teachers and learners being in separate places, not face-to-face.

Many participants in the interviews also expressed their belief in the capacity of the remote learning idea to bridge the gap in education access, due mainly to an enormous and inclusive opportunity that comes from the process. It is believed that it will surely promote inclusiveness and eliminate boundaries in the pursuit of high-quality education.

Research Question 2: How prepared are the stakeholders as they migrate to remote learning?

The respondents also barred their minds on the issue of technical requirements for the operation of the system. They were asked, as *stakeholders in the digital learning environment, what level of skill do you think that the new learning system* requires from you*?* They responded differently, but many agreed that one needs a basic digital skill that can be upgraded as one progresses; others said, just the elementary skill is needed;for no sophistication, see Table 5.

Table 2: Which of these level of skills does remote learning require of you?

Level of skills required		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Basic IT skill	11	37.9	37.9	37.9
	Intermediate IT skills	15	51.7	51.7	89.7
	Special training in digital operations beyond IT skills	3	10.3	10.3	100.0
	Total	29	100.0	100.0	

Source: Researchers' field interviews/surveys, 2023.

The above table shows that only an average IT skill is necessary to make an impact on remote learning. Varied responses, including some saying it has been gradual but has been consistently involved; one respondent said, "It has become a way of life for me, though connectivity has been an issue," another interview said, "I have had average participation and facilitation for my students," while another remarked and said, his participation has been average and above average, while summing it up with, "I see myself improving myself and my teaching generally."

Research question 3: What harmonization and regulatory frameworks are necessary for remote learning new initiative to thrive in Nigeria?

Table 3: To allow the remote learning initiative to become useful and effective, some form of harmonization is needed

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No response	1	3.4	3.4	3.4
	Strongly agree	11	37.9	37.9	41.4
	Agree	12	41.4	41.4	82.8
	Disagree	5	17.2	17.2	100.0
	Total	29	100.0	100.0	

Source: Researchers' field interviews/surveys, 2023.

The table shows the results of a survey on the need for harmonization in remote learning initiatives. Overall, the majority (79.3%) of the respondents agreed or strongly agreed that some form of harmonization is needed for remote learning to be useful and effective, suggesting that many people believe that consistency and standardization are important factors in the success of remote learning programs.

Demographic Questions

Table 4. Gender of respondents

Gender		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	14	48.3	48.3	48.3
	Female	15	51.7	51.7	100.0
	Total	29	100.0	100.0	

Source: Researchers' field interviews/surveys, 2023.

Table 5: Highest qualification of respondents

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Ph. D.	1	3.4	3.4	3.4
	M. Sc.	19	65.5	65.5	69.0
	BSc./``HND	9	31.0	31.0	100.0
	Total	29	100.0	100.0	

Source: Researchers' field interviews/surveys, 2023.

DISCUSSION OF FINDINGS

Arising from answers to the interview questions in this study. It can be posited that knowledge of this pedagogy by critical stakeholders is quite high and can guarantee the required level of adoption among critical stakeholders. All these findings indicate that the remote learning concept is fairly new and hence has prospects for modifications, adaptations and proper guidelines from the appropriate quarters. The idea that stakeholders believe in the potential of remote learning to change the education trajectory is welcoming, as it has the potential to drive its implementation in the right direction.

The majority of the respondents agreed that one needs but a basic digital skill that can be upgraded going forward; some said just the elementary skill, no sophistication, another opined, 'just basic skill then upgrade and yet another said, just the elementary skill, no sophistication.' The implication of this situation is the reality that more than anything else, entry and exit from remote learning may become an all-comers' affair, opening the door for unregulated content. The high-level participation seen from stakeholders, especially lecturers, is an indication of a system that is bound to flourish if properly managed through, among other things, the appropriate regulatory framework. All of these findings support the idea that the remote earning environment is fluid, simple and easily navigable; thus, standardisation becomes imperative to checkmate low-quality offerings and to save the educational sector.

This further suggests that stakeholders understood the concept and adapted to remote learning during the pandemic, indicating a notable level of understanding among stakeholders regarding the concept of remote learning, as demonstrated by their successful adaptation to this mode of education during the pandemic. Further exploration is needed to understand the

challenges encountered, potential opportunities, and necessary regulatory frameworks. Several studies support the claim that stakeholders in Nigeria grasped the concept of remote learning. For instance, a study by Adedoyin and Alabi (2021) revealed that educators at Nigerian universities exhibited a "positive perception" of remote learning, understanding its potential benefits despite initial challenges. Similarly, a study by Olugbemi (2020) reported that parents in Nigeria acknowledged the importance of remote learning during school closures due to the COVID-19 pandemic.

While stakeholders demonstrated comprehension, the transition to remote learning was not without its difficulties. Adedoyin and Alabi (2021) identified challenges such as inadequate infrastructure, lack of digital literacy among educators and students, and insufficient training as hindering factors. Olugbemi (2020) further highlighted limited access to technology and electricity as significant barriers for students in rural areas. Despite these challenges, opportunities exist for leveraging the potential of remote learning in Nigeria.

Conclusion and recommendations

The study concludes that stakeholders in Nigeria have shown adequate understanding of remote learning and in favour of a positive step towards modernizing and improving the education system. Stakeholders need to work together to harness the full potential of remote learning and create a more inclusive and accessible education environment for all students. It further concludes that adequate preparation needs to be made to fully migrate to the remote learning mode of education. Consequently, it is essential to establish harmonization and regulatory frameworks that will support the thriving of new remote learning initiatives in Nigeria. While stakeholders in Nigeria demonstrated an understanding of remote learning and adapted to its implementation, challenges such as infrastructure limitations and digital access disparities persist. Addressing these challenges and establishing a robust regulatory framework are vital for capitalizing on the potential of remote learning and expanding educational opportunities in Nigeria.

On the basis of the study findings, the following recommendations are made:

1. Investing in improving internet connectivity and access to devices to address the challenges faced by critical stakeholders during the transition to remote learning.
2. Provide targeted support and training to stakeholders to increase their preparedness and effectiveness in utilizing remote learning platforms.
3. Moreover, partnerships and collaborations should be explored to expand distance learning options and increase access to education, especially in remote or underserved areas.
4. Further research should be conducted to identify additional barriers to remote learning and develop strategies to overcome them for sustainable growth in this area.

REFERENCES

Adedoyin, O. A., & Alabi, A. A. (2021). University teachers' perception and challenges of online learning during COVID-19 pandemic in Nigeria. *International Journal of Educational Development, 81,* 102438.

https://www.researchgate.net/publication/350006386_Perception_and_Readiness_of_Students'_Towards_Online_Learning_in_Nigeria_During_Covid-19_Pandemic

Alston, M., Allan, J., Bell, K., Brown, A., Dowling, J., Hamilton, P., McKinnon, J., McKinnon, N., Mitchell, R., Whittenbury, K., Valentine, B., Wicks, A., & Williams, R. (2005). 'SERPS Up': Support, engagement and retention of postgraduate students - a model of postgraduate support. *Australian Journal of Adult Learning, 45,* 172-190.

Best Practices and Pitfalls. (2020). *Tech and Learning.* Available at: https://link-gale-com.libproxy.wlu.ca/apps/doc/A627386606/AONE?u=wate18005&sid=AONE&xid=edac47d9. Accessed on 20/09/2023.

Blended and Online Learning. (2020). *Going remote.* York University. Available at: https://bold.info.yorku.ca/. Accessed on 20/09/2023.

Bontempi, E. (2003). Motivation and distance learning: What we know so far. *XplanaZine.* Retrieved 11 March, 2008, from: http://www.xplanazine.com/2003/11/motivation-and-distancelearning-what-we-know-so-far. Accessed on 28/9/2023.

Buchanan, E. A., Myers, S. E., & Hardin, S. L. (2005). Holding your hand from a distance: Online mentoring and the graduate library and information science student. *The Journal of Educators Online, 2*(2).

Bryd, J. (2016). Understanding the online doctoral learning experience: Factors that contribute to students' sense of community. *The Journal of Educators Online, 13*(2). https://doi.org/10.9743/jeo.2016.2.3. Accessed on 20/09/2023.

Chapman, D. W., & Austin, A. E. (2002). *Higher education in the developing world: Changing contexts and institutional responses.* Westport, Connecticut: Praeger.

Galusha, J. M. (1997). Barriers to learning in distance education. *Interpersonal Computing and Technology, 5*(3-4), 6-14.

Haughey, M. (2013). Distance learning. *The Canadian Encyclopedia.* Available at: https://www.thecanadianencyclopedia.ca/en/article/distance-learning. Accessed on 10/08/2023.

Igbokwe-Ibeto, C. J. (2019). The effect of job analysis on service delivery in Federal Airports Authority of Nigeria (FAAN) 2005-2014. *International Journal of Human Resources Studies, 9*(2), 195-211.

Ikegulu, B., & Oranusi, S. (2014). Distance and open learning in Nigeria: Progress, concerns and prospects. *Journal of Education and Practice, 5*(35), 167-171.

Jimoh, M. (2013). An appraisal of the open and distance learning programme in Nigeria. *Journal of Education and Practice, 4*(3), 1-8.

Kentnor, H. E. (2015). Distance education and the evolution of online learning in the United States. *Curriculum and Teaching Dialogue, 17*(1&2), 21-34.

Kizilcec, R. F., & Halawa, S. (2015). Attrition and achievement gaps in online learning. In *Proceedings of the second ACM conference on Learning@Scale* (pp. 57-66).

Lee, J. (2010). Online support service quality, online learning acceptance, and student satisfaction. *The Internet and Higher Education, 13*(4), 277-283. https://doi.org/10.1016/j.iheduc.2010.08.002

Lederman, D. (2020). The shift to remote learning: The human element. Retrieved from: https://www.insidehighered.com

Macauley, P. (2000). Pedagogic continuity in doctoral supervision: Echoes in response-context, continuity and resonance. Coldstream: Australian Association of Research in Education.

Male, S., & Lawrence, W. (2002, 5-6 February). Support schemes for first year computing students and electrical and computer engineering students. Paper presented at the *11th Annual Teaching Learning Forum 2002: Focusing on Students*, Perth: Edith Cowan University.

Markov, A., Yavnai, R., Lafrenière, G., Woodford, M., & Karki, K. (2021). Surviving and thriving in a COVID-19 remote learning context: A survey of post-secondary students and instructors in Ontario. Available at: file:///C:/Users/USER/Desktop/CJ%20ARCHIVE/Surviving_and_Thriving_in_a_COVID_19_Rem.pdf. Accessed on: 27/09/2023.

McKenzie, L. (2020). Taking colleges online: How smart institutions and their leaders can approach online education now in a post coronavirus world.

Logel, C., Boucher, K., & Ryan, K. (2020). Covid-19 response supporting students in times of crisis – Guidance for instructors. *College Transition Collaboration.*

Mgutshini, T. (2013). Online or not? A comparison of students' experiences of an online and an on-campus class. *Curationis, 36*(1), 1-7.

Olugbemi, O. (2020). COVID-19 and the quest for sustainable educational practices in Nigeria: The role of alternative learning approaches. *International Journal of Education and Development using Information and Communication Technology, 16*(10), 117-127.

O'Malley, S. (2017). Effective teaching online. *Inside Higher Ed.* Available at: https://www.insidehighered.com/digital-learning/article/2017/07/12/7-guidelines-effective-teaching-online. Accessed on: 24/09/2023.

Owens, J., Hardcastle, L., & Richardson, B. (2009). Learning from a distance: The experience of remote students. *Journal of Distance Education, 23*(3), 53-74.

Pather, N., Blyth, P., Chapman, J. A., Dayal, M. R., Flack, N. A., Fogg, Q. A., & Lazarus, M. D. (2020). Forced disruption of anatomy education in Australia and New Zealand: An acute response to the Covid-19 pandemic. *Anatomical Sciences Education, 13*(3), 284-300.

Rovai, A., & Barnum, K. (2003). On-line course effectiveness: An analysis of student interactions and perceptions of learning. *Journal of Distance Education, 18*(1), 57-73.

Schrumm, A. (2020). The future of post-secondary education: On campus, online and on demand. *Royal Bank of Canada: Human Capital.* Available at: https://thoughtleadership.rbc.com/the-future-of-post-secondary-education-on-campus-online-and-on-demand/. Accessed on: 27/08/2023.

Sumner, J. (2000). Serving the system: A critical history of distance education. *Open Learning: The Journal of Open, Distance and e-Learning, 15*(3), 267-285. https://doi.org/10.1080/713688409. Accessed on: 27/09/2023.

Teaching and Learning Services. (2020). Principles and examples of shifting your teaching and assessment to a remote teaching environment. *McGill University.* Available at: https://www.mcgill.ca/tls/instructors/class-disruption/strategies/assessment. Accessed on: 22/09/2023.

The Globe and Mail. (2020). Postsecondary learning online. *The Globe and Mail.* Available at: https://www.theglobeandmail.com/events/article-postsecondary-learning-online/. Accessed on: 27/09/2023.

Thompson, C., & Martin, A. (2015). Elements of psychology, an introductory psychology course at the University of Oklahoma. In J. Waldrop & M. Bowdon (Eds.), *Best practices for flipping the college classroom* (pp. 69-86).

United Nations Education Scientific and Cultural Organisation. (2017). Call for piloting guidelines on the inclusion of learners with disabilities in open and distance learning. *UNESCO,* Paris, France.

Yamane, T. (1967). *Statistics: An introduction analysis* (2nd ed.). New York: Harper and Row.

Zulaikha, M. B., Azlin, N. M., Khairul, A. J., & Bity, S. A. (2021). The effectiveness and challenges of online learning for secondary school students: A case study. *Asian Journal of University Education (AJUE), 17*(3), 119-129.