



EMERGENCY REMOTE TEACHING DURING COVID-19 LOCKDOWN: AL-QALAM UNIVERSITY KATSINA LECTURERS' EXPERIENCE

Umar A.Z.¹ and Ado S.G.²

¹Department of Mathematical Sciences, Al-Qalam University Katsina

²Department of Biological Sciences, Al-Qalam University Katsina

Email of Corresponding Author: azumar@auk.edu.ng; +2348161882848

ABSTRACT

This paper reported lecturers' experience in the synchronous and asynchronous Emergency Remote Teaching (ERT) at Al-Qalam University Katsina (AUK), Nigeria during the Corona Virus (COVID-19) lockdown. In the asynchronous mode, recorded lectures and other learning materials were sent to students. In the synchronous mode, the lecturers met with the students, virtually, and explained the grey areas from the materials that were sent. After the ERT, an online questionnaire was designed to gather lecturers' responses about their experiences. The findings have shown that most of the lecturers used mobile phone data for the ERT. Thus, designers of Learning Management Systems (LMS) should pay attention to user experience of mobile platforms. Lecturers who could afford more than 10 Gigabytes of data in a month conducted more synchronous sessions than those who could not. Interestingly, lecturers who indicated that they could not have considered remote teaching, willingly, conducted more synchronous sessions than those who indicated that they could have considered remote teaching. Overall, lecturers mostly rated their experiences very good and took the switch to ERT as a wake-up call despite poor internet service quality. The paper concluded that, desperate situation and persuasion may hasten the adoption e-learning technologies.

Keywords: *Emergency Remote Teaching, Asynchronous Teaching, Synchronous Teaching, Teaching during Covid19 Lockdown*

INTRODUCTION

Globally, Corona Virus had devastating effects on many aspects of human life. The Virus was first diagnosed in the Chinese city of Wuhan and spread out quickly across all continents. The major transmission media of the virus were respiratory droplets and contact routes. Hence, limiting contacts between people, by means of enforcing lockdown, proved to be effective in containing the virus in Wuhan. Consequently, the lockdown measure was adapted and applied to many infected cities and countries where the virus spread.

With spontaneous lockdowns, conventional Face-to-Face (F2F) teaching was abruptly suspended, indefinitely, to avoid mass gathering and to enforce physical distancing believed to slow the infection rate. Nigeria recorded the first case of Corona Virus on the 27th of February 2020. As the virus continued to spread to many states, authorities directed the closure of schools at all levels from March 23, 2020, to October 18, 2020. Al-Qalam University Katsina (AUK) responded

promptly and suspended 2019/2020 academic session after the lecturers already delivered about 75-80% of lectures for that semester.

Many schools, globally (Ghazi-Saidi et al., 2020; Mishra et al., 2020; Patricia Aguilera-Hermida, 2020; Quezada et al., 2020; Yilmaz İnce et al., 2020), replaced face-to-face classroom teaching with remote teaching. According to the International Association of Universities (IAU) Global Survey Report (Marinoni et al., 2020), the percentage of universities that replaced face-to-face teaching with remote teaching across the globe is higher than the percentage of universities that either suspended teaching to develop solutions or cancelled teaching altogether. Africa has the least universities that switched to remote teaching with only 29% of the Universities switched; 43% suspended academic activities to develop solutions; 24% cancelled academic activities and waited for the return of normalcy; while the remaining 3% were not affected by the pandemic at all (Marinoni et al., 2020).

Special Conference Edition, April, 2022

Intuitively, the universities that institutionalised blended teaching before the pandemic would find the switch easier [6]. Otherwise, the switch can be referred to as an emergency one. As such, Emergency Remote Teaching (ERT) is a temporary switch from the conventional Face-to-Face teaching mode to remote teaching mode due to crisis circumstances and with the intention to revert back once the normalcy returns (Hodges *et al.*, 2020).

Although AUK had earlier deployed Learning Management System (LMS), it was not enforced but was used by few lecturers out of their own volition. Since desperate situation requires desperate measure, the Management of AUK mandated the switch to ERT at least to cover the remaining 20-25% lectures of the suspended semester.

The AUK adopted a model that combines both asynchronous and synchronous teaching modes (Umar and Ado, 2021). In the asynchronous teaching mode, a lecturer prepares and sends discrete materials for the students to consume on their own. In the synchronous mode, a lecturer and the students interact, virtually, using internet medium for the former to clarify to the latter only the grey areas from the materials already consumed.

The goal of this paper to dig-out the experiences the lecturers have had during the Emergency Remote Teaching. Specifically, the paper sought to answer the following research questions:

Research Questions

RQ1. What are the experiences of AUK lecturers in delivering instructions to students during the ERT?

RQ2. What are the specific challenges that hindered the smooth lecture delivery?

Since the outbreak of COVID-19, educational administrators and researchers focused on emergency remote teaching and learning. For instance, a study (Quezada *et al.*, 2020), reported how the authorities of California Liberal Arts College hurriedly prepared its lecturers for the ERT in response to COVID-19. Similarly, in a case study research, Mishra *et al.* (2020) (Mishra *et al.*, 2020), reported five cases of courses that switched from face-to-face to remote teaching. In each of the cases, they provided detailed Mishra *et al.* (2020) (Mishra *et al.*, 2020), employed both quantitative and qualitative approaches to analyse the perceptions of teachers and students on online teaching-learning modes in Mizoram University India. Domingos *et al.* (2021) (Domingos *et al.*, 2021) explored the perspectives of all lecturers at a Portuguese private higher education institution. The study aimed to propose and test a conceptual model that combines attitudes, preferred

descriptions of how the course was moved to remote mode; how the course was managed; the instructors' previous experience in remote teaching; their self-reflection on the process of transitioning to remote learning, and their recommendations for a more successful experience in, potentially, a similar scenario in future.

Other studies focus on the identification of variables that predict successful utilization of Remote Learning resources. In this category, Shahzad (2020) (Shahzad *et al.*, 2020), proposed a model to predict E-learning portal success using information quality and system quality as predictor variables. The study also compared males and females on E-learning portal usage and found that males and females have different levels of usage in Malaysian Universities. Another study Ghazi-Saide *et al.* (2020) (Ghazi-Saidi *et al.*, 2020), found that practicing blended teaching mode before the pandemic, technical experience, facilitating conditions, and previous online teaching, or learning experience played a significant role in the successful switch to Emergency Remote Teaching.

Similarly, studies exist about students' perceptions of the emergency switch to remote teaching. Yılmaz *et al.* (2020) (Yılmaz İnce *et al.*, 2020), collected responses from 1011 students of Isparta University of Applied Sciences Turkey and analysed their views on the switch to ERT. The study found that ownership of a computer and access to the internet affect students' perception of ERT. A study by Aguilera-Hermida (2020) (Patricia Aguilera-Hermida, 2020), also explored college students' perceptions of their adoption, use, and acceptance of emergency online learning. The study found that motivation, self-efficacy, and prior exposure to technology played a significant role in the cognitive engagement and academic performance of the students. Umar, A.Z. And Ado S.G. (2021) (Umar and Ado, 2021), reported students' experience of Al-Qalam University Katsina on the switch to emergency remote learning. They reported internet service quality as the major obstacle to students' participation in synchronous remote learning.

activities, and technological experience with the sentiment about the impact in their teaching activity. While it is important to have a conceptual model with the above mentioned constructs, it is equally desirable to shed light on more basic constructs such as access to the internet and affordability of data as they are more applicable in the context of developing nations. Joshua, W, and Kalz, M (2021) (Joshua and Kalz, 2021) employed resilience framing in order to

Special Conference Edition, April, 2022

shed light on the specific challenges that were associated with the switch to ERT and what factors facilitated lecturers coping with the challenges.

Unlike previous researches that either analysed moving individual courses to ERT (Ghazi-Saidi *et al.*, 2020) or highlighted how the switch was made in a context that is at par with Nigerian settings in terms of facilitating conditions, this paper focuses on lecturers' experience based on the previously deployed model (Umar and Ado, 2021).

Other studies emphasised the necessity and the instructional strategies to switch to remote teaching and learning during lockdown (Ali and Wahab, 2020; Esam Mahmood, 2020). Other researchers assessed the level of preparedness for remote teaching and learning (Edelhauser and Lupu-Dima, 2020). Similarly, a study hypothesised that, in Nigeria, there were many barriers to successful remote teaching and learning (Oyediran *et al.*, 2020). While this study acknowledges the existence of many barriers to ERT, substantial benefits could be gained from the switch to ERT if the previous experience were analysed and followed up with actions that need to be taken should the switch be considered in the future. Barriers were envisaged and taken into consideration beforehand.

The motivation behind this work is to document Al-Qalam University's Experience with regard to the switch to ERT. It is with the hope that other institutions would learn from it, should they want to move from face-to-face to remote teaching or are considering a blended teaching model. The work serves not only as a retrospect but also collects and documents empirical evidence on what went well or otherwise for informed future planning.

MATERIALS AND METHODS

For the asynchronous mode, lecturers were trained on the use of video recording software, *Loom*¹ and *Webinaria*², for recording lecture instructions in short clips and sent to students alongside other learning resources. Lecturers were guided on the length and number of videos per credit unit. To avoid the complication of the Learning Management System (LMS), the videos and any other learning materials were sent to students via *WhatsApp* or *Telegrams* groups (Umar and Ado, 2021). For the synchronous mode, *Zoom*³ and *Jist*⁴ video conferencing platforms were recommended.

¹ <https://www.loom.com/>

² <http://www.webinaria.com/>

The ERT was carried out for 4-5 weeks. After the ERT was completed, an online questionnaire was designed and hosted on Google Forms. The link to the questionnaire was sent to the lecturers via their WhatsApp groups. The population of the study was the lecturers of Al-Qalam University Katsina who participated in the ERT.

The questionnaire comprised of two sections: (a): Personal information, and (b): Experience in Emergency Remote Teaching. The Personal information section comprised questions such as Type of appointment (Tenure, Contract, Visiting, Part-time), Gender, Age category, College (Faculty), Department, Highest qualification, and Years of experience.

Questions in the Experience on the Emergency Remote Teaching section include the device(s) from which the lecturer delivered materials and interacted with the students, internet source(s), how much data (data plan) a lecturer could afford per month, and whether or not a lecturer would have considered remoter teaching willingly. Also, the questionnaire asked the lecturers to state, in numbers, how many synchronous sessions they had conducted. A question also asked lecturers the specific tools they used (if they deviated from the recommendation). Lastly, the questionnaire asked the lecturers to write general comments on their experience with Emergency Remote Teaching.

A total of 99 responses were collected which were analysed using Statistical Software for Social Sciences (SPSS). The next section presents the results of the analyses.

RESULTS AND DISCUSSION

Descriptive Statistics

Ninety-three (93) respondents were male lecturers, which represents 93.9% of the total respondents. Only six (6) respondents were female lecturers which represent only 6.1% of the total respondents. Fifty-five (55) respondents were tenure lecturers, which represents 55.6% of the total respondents; Sixteen (16) respondents were part-time lecturers which represents 16.2% of the total respondents; Twenty-two (22) respondents were visiting lecturers which represent 22.2% of the total respondents; Only six (6) respondents were either contract or sabbatical staff which represents 6.1% of the total respondents.

The majority of the respondents, 46 which represents 46.5% of the respondents, were within the age bracket of 30-39, followed by those

³ <https://zoom.us/>

⁴ <https://meet.jit.si/>

Special Conference Edition, April, 2022

within the age bracket of 50 -59 having 23 (23.2%). Twenty-one (21) respondents, which represent 21.2% of the respondents, were within the age bracket of 40-49. Only nine (9) respondents, which represent only 9.1%, were above the age of 60.

Only 34 of the 99 respondents, which represent 34.3% of the respondents, have Ph.D. Fifty-nine (59) of the respondents, which represent 59.6% of the total respondents, have M.Sc. as the highest qualification. Only six (6) respondents, which represent 6.1%, have Bachelor degrees.

Sixty-eight (68) respondents, which represent about 68.7% of the total respondents, indicated that they could have conducted remote teaching

willingly while 30 respondents, which represent 30.3% of the total respondents, indicated that they could not have conducted remote teaching willingly.

For the conduct of ERT, lecturers mostly used mobile data exclusively. Fifty (50) respondents (50.5% of the total respondents) indicated that they had no source of internet other than mobile data (see Table 1a). Similarly, most of the lecturers (62 respondents and 62.2% of the total respondents) indicated that they could only afford 10G of data in a month. Only 6 lecturers indicated that they could afford an unlimited data plan in a month (see Table 1b).

Table 1a: Distribution of responses by Respondents' source of internet

	Frequency	Percent
Home internet	3	3.0
Home internet; Office	2	2.0
Internet; Telephone data		
Home internet; mobile data	13	13.1
Office Internet	9	9.1
Office Internet; mobile data	22	22.2
mobile data	50	50.5
Total	99	100.0

Table 1b: Distribution of responses by the data plan Respondents' could afford

	Frequency	Percent
10G	62	62.6
>10G	18	18.2
< 10G	13	13.1
unlimited	6	6.1
Total	99	100.0

Lecturers mostly (40.4% of the respondents) used Zoom for both the recording of video lectures and the virtual interaction sessions and, therefore, did not use the Loom as recommended software for recording video lectures. Twenty-one percent (21%) of the respondents used a combination of Loom and Zoom for recording the video lectures and for the virtual interaction sessions respectively. About fifteen percent (15%) of the lecturers use tools other than Loom and Zoom. Most of the lectures (70.7% of the respondents) complied with the guideline of limiting each virtual interaction to between 30 minutes to one hour. However, 15.2% of the lecturers had virtual interaction sessions lasting more than an hour. The average years of teaching

experience of the respondents were 11 but with a standard deviation of 0.9. It means the years of experience significantly vary between the respondents as the years range from 1 to 38. Respondents with four (4) years of teaching experience were the highest in number with 19 respondents which represent 19.2%.

The overall average number of times lecturers conducted synchronous sessions was 4.3. (see Figure 1). Lecturers between the ages of 50-59 conducted more synchronous sessions than the rest of the age group (see Table 2a). Similarly, Bachelor degree holders conducted more synchronous sessions than those with M.Sc. or Ph.D. (see Table 2b).

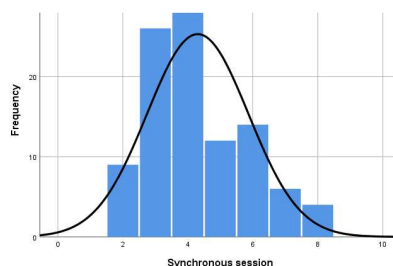


Figure 1: Histogram of number of synchronous sessions conducted by lecturers

Table 2a: means of conduct synchronous sessions by age group

Age	Mean	N	Std.
30-39	4.35	46	1.567
40-49	3.86	21	1.014
50-59	4.61	23	1.725
Above 60	4.33	9	2.121
Total	4.30	99	1.561

Lecturers who could afford more than 10G of data conducted more synchronous sessions than those who could not (see Table 3a). Lastly and interestingly, lecturers who indicated that they could not have conducted remote teaching

Table 3a: means of conduct synchronous sessions by affording data

Affording data	Mean	N	Std.
10G	4.31	62	1.615
> 10G	4.67	18	1.414
< 10G	3.62	13	.506
Unlimited	4.67	6	2.582
Total	4.30	99	1.561

Inferential Statistics

To analyse whether the variations of conducting synchronous sessions by the different factors (age, highest qualification, affording data, and volition) were statistically significant, Analysis of Variance (ANOVA) statistical model was employed. Normality assumption was investigated using the residuals of conducting synchronous sessions against each of the factors of interest. That is, normality assumption was tested based on whether or not the residuals of the number of conducting synchronous sessions, given each of the factors, were drawn from a normal distribution.

In all the four cases, the histograms resemble bell curve. In addition, The Skewedness and Kurtosis of the residuals in both cases were within the acceptable range of -3 to +3(George and Mallery, 2000). Thus, the normality of the data was assumed in the four factors versus the number of synchronous session conducted.

Homogeneity of variances was also tested for the fixed factors (age group, highest qualification, affording data, and volition) against conducting synchronous sessions using *Levene* Statistics. In all the four cases, the results were statistically significant. For the age group as a fixed factor ($F_{3, 100} = 2.755, p = 0.046$); For the highest qualification as a fixed factor ($F_{2, 101} = 3.241, p =$

Table 2b: means of conduct synchronous sessions by highest qualification

Qualification	Mean	N	Std.
Bachelor	6.00	6	1.095
M.Sc.	4.00	59	1.326
PhD	4.53	34	1.796
Total	4.30	99	1.561

willingly actually conducted more synchronous sessions than those who indicated that they could have considered remote teaching on their own (see Table 3b).

Table 3b: means of conduct synchronous sessions by staff volition

Volition	Mean	N	Std.
No	4.97	30	1.771
Yes	4.03	68	1.382
Total	4.32	98	1.564

0.043); For the ability to afford data as a fixed factor, ($F_{4, 99} = 8.123, p = 0.000$). For the volition as a fixed factor ($F_{1, 101} = 4.683, p = 0.033$).

Since the assumption of homogeneity of variance was not met, we chose the *Welch* test and which indicated that the variations between age groups and conducting the synchronous lecture was not statistically significant (Welch's $F_3, 29.872 = 0.963, p = 0.423$). However, variation between the highest qualification and conducting the synchronous sessions was statistically significant (Welch's $F_2, 14.584 = 8.315, p = 0.004$). This means Bachelor degree holders may have more enthusiasm toward the ERT. Similarly, the variations between affording data and conducting the synchronous lecture was statistically significant (Welch's $F_3, 18.909 = 4.284, p = 0.018$). This is straight forward as people with more money to spend on data, in the absence of office internet, are more likely to conduct synchronous sessions. Lastly, the variations between volition and conducting the synchronous sessions was statistically significant (Welch's $F_1, 52.696 = 7.369, p = 0.009$). This last one is the interesting one as those who would not have considered ERT on their own ended up conducting more synchronous sessions.

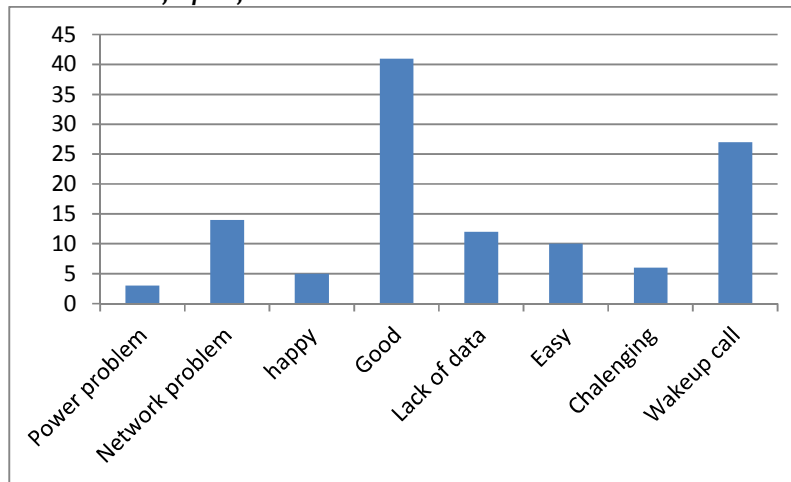


Figure 2: Themes from open-ended responses

Qualitative analyses

There were a total of 84 responses to the open-ended question and were classified into eight (8) themes as shown in Figure 2.

Looking at Figure 2, lecturers mostly rated their experience with ERT good. That is, lecturers were mostly positive about the ERT. As this study is more interested in the challenges that impeded the smooth conduct of ERT, network problem and cost of data were the major obstacles from the responses.

Wakeup Call

Many lecturers acknowledged the challenges but articulated them as a wake-up call. Thus, this study classified them as such and dug into the aspect that needed to be done in order to overcome the challenges in the future. Thus, the provision of stable internet access; and training were the most featured comments. In addition, some comments categorized under wakeup call were more general in nature. Below are examples of comments under the three sub-headings of provision of stable internet access and data, more training, and general comments

Provision of stable internet and data

"...Only that we will need the authority to provide adequate internet service to the various Staff office"

The system can be more efficient if the provision can be made to take care of the burden of internet access.."

"The University should provide internet services that will take care of the online teaching. To be frank, lecturers cannot afford to continue using mobile data for the programme..."

More training

"...some of our lectures they do not have experience on using tools of the online lectures." It has a lot of challenges as few students have the necessary tools to participate, have the

knowledge on the usage, lack of control from the lecturer on the students.

It is very difficult to document and calculate student's lecture attendance.

The management should improve the uses of those applications for online teaching and learning

CONCLUSION

This paper described lecturers' experience in the synchronous and asynchronous Emergency Remote Teaching (ERT) at Al-Qalam University Katsina (AUK), Nigeria during the Corona Virus Disease (COVID-19) lockdown. The paper analysed quantitative and qualitative responses to the questionnaire and by the lecturers. The findings from the analyses have shown that most of the lecturers used mobile phone data to send the learning materials and in conducting virtual interactions with students. Lecturers within the age bracket of 50-59 conducted more virtual interactions with students than the rest of the lecturers in other age groups but the difference was down to chance. Similarly, lecturers who could afford more than 10 Gigabytes of data in a month conducted more virtual interactions with students than those who could not and the difference was statistically significant. Interestingly, lecturers who indicated that they could not have considered remote teaching, willingly, conducted more virtual interactions with students than those who indicated that they could have, willingly, considered remote teaching and the difference was also statistically significant. The paper also presents the analysed lecturers' responses to an open-ended question which was posed to gather their feedbacks in free form. Overall, lecturers mostly considered their experiences very good and took the switch to ERT as a wake-up call. However internet service quality has been their major negative experience.

Special Conference Edition, April, 2022

The paper concluded that, desperate situation and persuasion may hasten the adoption e-learning technologies.

REFERENCES

- Ali, W., & Wahab, A. (2020). Unraveling the Inherent Complexities of Quality Education: Emerging Implication for Policy and Practice View project Online and Remote Learning in Higher Education Institutes: A Necessity in light of COVID-19 Pandemic. *Higher Education Studies*, 10(3). <https://doi.org/10.5539/hes.v10n3p16>
- Domingos, M., Sobreiro, P., & Vardasca, R. (2021). Teaching Sentiment in Emergency Online Learning—A Conceptual Model. *Education Sciences*, 11(2), 53.
- Edelhauser, E., & Lupu-Dima, L. (2020). Is Romania Prepared for eLearning during the COVID-19 Pandemic? *Sustainability*, 12(13), 5438. <https://doi.org/10.3390/su12135438>
- Esam Mahmood, S. (2020). Novel Corona Virus Pandemic: Social Responsibility and Control. *International Journal of Medical Reviews and Case Reports*, 4(9), 28–31.
- George, D., & Mallery, P. (2000). *SPSS for Windows step by step: A simple guide and reference. 11.0 update*. Allyn & Bacon, Inc.
- Ghazi-Saidi, L., Criffield, A., Kracl, C. L., McKelvey, M., Obasi, S. N., & Vu, P. (2020). Moving from Face-to-Face to Remote Instruction in a Higher Education Institution during a Pandemic: Multiple Case Studies. *International Journal of Technology in Education and Science*, 4(4), 370–383. <https://doi.org/10.46328/ijtes.v4i4.169>
- Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The Difference Between Emergency Remote Teaching and Online Learning. In *medicine.hofstra.edu*. <https://er.educause.edu/articles/2020/3/the-difference-between-emergency-remote-teaching-and->
- Joshua, W., & Kalz, M. (2021). Exploring predictors of instructional resilience during emergency remote teaching in higher education. *International Journal of Educational Technology in Higher Education*, 18(1), 1–26.
- Marinoni, G., Van't Land, H., & Jensen, T. (2020). The impact of Covid-19 on higher education around the world. IAU Global Survey Report. In *Iau-Aiu.Net*.
- Mishra, L., Gupta, T., & Shree, A. (2020). Online teaching-learning in higher education during lockdown period of COVID-19 pandemic. *International Journal of Educational Research Open*, 2(6), 5–10. <https://doi.org/10.1016/j.ijedro.2020.1000>
- 12
- Oyediran, W. O., Motunrayo, A. O., Adebusola, M. O., Olatoke, A. A., & Bolanle, R. F. (2020). Prospects and limitations of e-learning application in private tertiary institutions amidst COVID-19 lockdown in Nigeria. *Heliyon-Elsevier*, 6(11), e05457.
- Patricia Aguilera-Hermida, A. (2020). College students' use and acceptance of emergency online learning due to COVID-19. *International Journal of Educational Research Open*, 1(2020), 100011.
- Quezada, R. L., Talbot, C., & Quezada-Parker, K. B. (2020). From bricks and mortar to remote teaching: a teacher education programme's response to COVID-19. *Journal of Education for Teaching*, 46(4), 472–483. <https://doi.org/10.1080/02607476.2020.1801330>
- Shahzad, A., Hassan, R., Aremu, A. Y., Hussain, A., & Lodhi, R. N. (2020). Effects of COVID-19 in E-learning on higher education institution students: the group comparison between male and female. *Quality and Quantity*, 53(3), 805–806. <https://doi.org/10.1007/s11135-020-01028-z>
- Umar, A. Z., & Ado, S. G. (2021). Emergency Remote Learning During COVID-19 Lockdown: Al-Qalam University Katsina Students' Experience. In Prof. Afolayan A. Obiniyi, Prof. Rasheed Gbenga Jimoh, Dr. Uyinomen O. Ekong, Prof. Steve Adesina, & Prof. Folorunsho Olaiya (Eds.), *International Conference on Information Technology in Education and Development (ITED)* (pp. 167–174).
- Yılmaz İnce, E., Kabul, A., & Diler, İ. (2020). Distance Education in Higher Education in the COVID-19 Pandemic Process: A Case of Isparta Applied Sciences University. *International Journal of Technology in Education and Science*, 4(4), 343–351. <https://doi.org/10.46328/ijtes.v4i4.112>