Learning Experiences of Students from Sindh and Balochistan About Online Learning during Covid-19 Pandemic Crisis

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Abstract

This research study explored the learning experiences of the students of government schools of Sindh province and private schools of Balochistan about online learning during Covid-19 pandemic crisis. Qualitative research methodology through a semi-structured online interview and focused group discussions was adopted for answering research questions. Through purposive sampling, sixteen students of federal public schools of Karachi and fifteen students from private schools of Balochistan were selected for interviews. Three focused group discussions were conducted among the participants from Karachi and two among the participants of Quetta. The qualitative raw data were transcribed, categorized and themes were generated. The findings of this study concluded that digital social media leaves deep impacts on the teaching and learning process of students. It is widely considered as a good initiative and appropriate alternative approach by saving and retaining the educational activities possibly from huge educational loss. Although these online classes have some limitations, they serve as a healthy and innovative approach reaching to students. Study recommends that the platforms of digital social media should be enhanced across the country both in rural and urban setting. Government should invest in technology based teaching and learning in order to train for such unfamiliar and sudden crisis.

Keywords: Learning Experiences, Online Classes, COVID-19 Pandemic, Pedagogy

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Introduction

Human beings have experienced various infectious diseases since the outset of civilization such as Small POX, HIV, AIDS, SARS. Examining the severity and intensity of all these diseases, it is observed that they caused huge and multiple losses and left serious repercussions on the psyche of human being. Fear, anxiety, depression and panic remained rampant among people in addition to destruction of their lives, property, economic and education. However, problems of masses go infinite and uncontrolled when they suddenly come in challenging situation due to an unfamiliar pandemic. Similarly, Covid-19 is causing huge loss specially to the educational institutions which stopped the doors of the diffusion of knowledge to the students. The first case of Covid-19 in Pakistan was reported on 26th February 2020, later on cases escalated on daily basis. Due to this pandemic, government hurriedly took decision of closure of schools across the country with strict orders and framed policies. Resultantly, all academic activities including exams were suspended causing enormous loss to the career and learning of students.

In order to protect the lives of people, government took decision of complete lockdown on 23rd March 2020 which eventually converted into smart lockdown on 9th may 2020. However, educational institutions and public places were kept closed (Kaleem, 2020). The students specially belonging to rural areas reported to face tough challenges in getting access to internet and other gadgets for their education due to lockdown (Hasan, Rehman, & Zhang, 2020). It is also being observed that most of the parents of students belonging to low Socio-Economic Status (SES), lack Information and Communication Technology (ICT) facilities and skills. Hence, their children suffer in seeking knowledge from their homes. They are always vulnerable to educational and career loss. Guzman and Malik (2020) assert that Covid-19 has caused terrific and complicated challenges to the world specially to developing nations like Pakistan. Such contagious disease affects badly the educational sector causing multiple problems to students for their present and future career prospects. Presently, there is no well-designed policies framed to save the economic and educational losses and ensure the continuity of these productive sectors during emergency situation or crisis (Ellis & Roberts, 2015).

Taking the comparative view, it is observed that the developed countries are capable enough in utilizing the home-based ICT tools for the students to participate in their academic activities through online digital social media. However, same is yet to be decided and determine in the developing countries like Pakistan where the educational sector always comes at risk and faces serious issues during emergency situation. Schneider and Council (2020) emphasized on creation of an online platform for students' learning. In this online platform, they suggested to discuss interesting cases related to field and sharing online lectures and sessions of experts to learn from their best practices and experiences. Rose (2020) claimed that Covid-19 pandemic has brought revolutionary changes in medical education that was being aspired for long time. Muzzini and Aparicio (2013) observe that it becomes impossible to continue the learning activities in the traditional way during a pandemic. Therefore, such kind of situation necessitates for expanding and reinforcing the role of technology in educational institutions to enhance the literacy and avoid serious impending educational loss in future. Investment in technology is the need of time to keep educational sector at par with other standard systems of developed nations.

This study aims at exploring the learning experiences of the students of government schools of Karachi, Sindh and private schools of Quetta, Balochistan about online learning during Covid-19 pandemic crisis. According to researcher's knowledge, until June 2020, there was no study exploring students' online learning experiences during Covid-19 pandemic crisis in Sindh and Balochistan provinces. Secondly, the review of related literature shows that majority of the

available literature has adopted quantitative approaches (Abbasi et al., 2020; Adnan & Anwar, 2020; Zhong et al., 2020) and more in-depth exploratory studies are required on students' learning experiences. Moreover, majority of the studies have been conducted in medical field and on medical students (Abbasi et al., 2020; Rundle et al., 2020; Schneider & Council, 2020) which definitely have different experiences as compared to school students. Thus, this study aims at filling the gap discussed above and add into current literature on the impact of Covid-19 on education sector. The result of this study will definitely pave a new way for adopting, reinforcing and restructuring strategies for online learning during crisis and emergency situations.

Review of Related Literature

Globalization, internationalization and digitization are the major sources of change among the current generations of learners which ultimately influence the system of education (Catalano, 2019). 21st century has been deeply influenced by digital connective technologies in the major aspects of life including the social, economic and the political (Saykili, 2019). According to PISA 2021 ICT framework, the major policy concerns for the governments is use of digital technologies in education and the dire need of developing digital competencies among the students (OECED, 2019). Considering the post-COVID challenges, the associates and member countries of OECD decided to postpone the assessment program for year 2021 -2022. However, the draft for 2021 published in April, 2019 before COVID-19, elaborated the role of ICT for new options to learn outside the school and changing behaviour of teachers with respect to pedagogical strategies and learning experiences of students in school. This draft admits that no consensus has been established on the contribution of ICT on student academic achievement specifically on intellectual performance. Saykili (2019) concluded that hybrid learning environments are more effective in providing deep learning which may be developed by integrating the digital, virtual and online approaches with physical environments as blended learning model. Valverde-Berrocoso and Fernández-Sánchez (2020)stated that E-learning has been blended with a unique network of teaching and learning as a result of digital transformation of education system. They further described that closure of schools due to COVID-19 enforced 1.5 billion students and 63 million teachers around the globe to switch from in person academic practices all of a sudden. This is how the challenges of digitalization are brought into notice in term of the strength and weakness of prevailing system of education.

There is limited literature available on effect of COVID-19 pandemic on students learning at different educational levels in general, and particularly at school level and in Pakistan. This situation is recent and has brought dramatic changes in almost all organizations including educational institutions (Schneider & Council, 2020). The main effect was change in mode of instructions spontaneously from live teaching to online distance teaching, for which the educational institutions of developing countries including Pakistan were not prepared. Adnan and Anwar (2020), conducted a quantitative study to analyze the attitude of university students towards online learning in Pakistan. They found that majority of the students faced acute challenges due to online classes. Poor internet connections, lack of interaction with peers and teachers, and unavailability of classroom environment were the problems highlighted by the authors. The authors also argued that among other backward areas of Pakistan, the students from the province of Balochistan are facing issues due to unavailability and poor internet connections. Another quantitative study was also conducted on a private medical college students in Pakistan (Abbasi et al., 2020). The researchers found that majority of the students had negative perceptions regarding online classes due to COVID-19 pandemic. The students

considered traditional classroom teaching better than online classes. They considered the quality of online classes poor, low quality and insecure.

Similarly, a quantitative study has been conducted in Lahore to examine students' acceptance of online classes due to COVID-19 (Akram et al., 2020). The authors found that although students showed acceptance for online classes, they disliked the online video lectures and considered online classes different from traditional classes. Another quantitative study conducted in two universities of Rahimyar Khan district to investigate the effect of virtual learning on English department students (Shahzad et al., 2020). The authors found that English students enjoyed online classes as they considered it a new and interesting experience. For them, online classes were convenient and they did not experience any problem. A qualitative study conducted on university level medical and dentistry teachers and students in Lahore to analyze the advantages and disadvantages of distance education through virtual learning (Mukhtar et al., 2020). They found that being flexible, comfortable, and accessible were the benefits from both faculty and students while maintaining academic integrity was the main limitation of these online classes.

Research Methodology

Qualitative approach was used adopting semi-structured online interview among purposively selected students of federal government schools in Karachi, Sindh and private schools of Quetta Balochistan. The reason of selecting private school students from Quetta was the low percentages of students of government schools offering interactive online classes. Qualitative research methodology was adopted because the researchers aimed at exploring and developing an understanding of learning experiences of students during COVID-19 pandemic and giving importance to the experiences and views of participants (Creswell, 2012).

Telephonic interviews were conducted between students and researchers. These in-depth interviews facilitated the researcher to gather very comprehensive and detailed information about usage, advantages and issues that students experience during online classes due to prevalent of COVID-19 crisis. A total of 16 semi-structure interviews were executed from federal Public School of Karachi, Sindh. From Balochistan, 15 interviews were conducted from private school students. The semi-structure interview allowed researchers to ask more unstructured open-ended questions along with probing questions. The participants were given freedom to express their views freely without any fear or words inculcated by the researchers.

In order to validate the findings, 3 focused group discussions (FGD) were conducted online via Zoom, Skype and web meeting in Karachi and a total 19 students participated in FGD meetings. Furthermore, more than 50 feedbacks were also received during online classes as researcher joined WhatsApp groups of classes in addition to the interviews and FGD. Two FGD were conducted online in Quetta. The FG discussions from Quetta were initiated in WhatsApp groups where students were asked to share their experiences of online classes. All raw qualitative data were transcribed. Thematic analysis by Braun and Clarke (2006) was used to infer the findings.

Findings and Analysis

The data analysis revealed that WhatsApp, Zoom, Skype, Web Meeting, Microsoft Teams, and Facebook were the different applications or social media tools being used by students of Karachi public school for teaching online. While WhatsApp and Zoom were the apps being used in private schools of Quetta. The data collected through interviews and FGD was analyzed through thematic analysis and two main themes emerged from the data as positive learning

experiences and negative learning experiences. Figure 1 below presents the summary of themes and sub-themes and these themes are explained in subsequent headings.

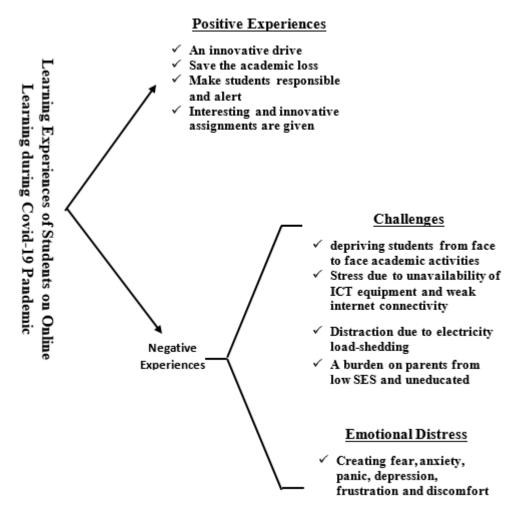


Figure 1. Summary of Themes and Sub-themes

Negative learning experiences. The data analysis revealed that students had various negative learning experiences from online classes due to COVID-19 pandemic. The negative learning experiences were due to challenges and emotional stress due to online classes.

Challenges experienced due to online classes. The data analysis shows that students in both provinces faced various challenges during online classes. However, the problems were more evident in Balochistan. The major problems that students experienced in both provinces were unavailability of ICT equipment, weak internet connectivity and electricity load-shedding or shortfall. In both provinces, the students mentioned that many of their class fellows were deprived of online learning due to lack of gadgets. Firstly, students' parents avoid providing such gadgets to their students. Secondly, some of the parents could not afford to buy such gadgets as few students mentioned that their siblings were also having online classes. In addition to gadgets, some students did not have facilities of internet connections. In this regard, a student from Quetta shared, "but online classes did not facilitate all students...a number of

students face difficulties in attending online classes...due to internet issues...as some class fellows do not have internet connections".

However, the major issue was poor internet connections. The students mentioned that during the online classes sometimes their connections fail or suddenly their electricity goes off and sometimes it happens to their teachers. This makes the teaching-learning process unappealing for students. A student from Karachi during interview said, "you see it is raining now and we do not have electricity and internet". In this regard, a student from Balochistan shared:

Online classes system was not effective because in learning process we don't only learn about the course, we get experiences...this pandemic condition has made us totally depended upon the course that requires new learning experiences and the biggest issue which we feel everyday that's about internet issues which destroys our learning interest badly.

In addition, one of the issues is lack of face to face learning in the classroom, reciprocal learning and school environment. Since the students are accustomed to class-based learning, they are facing problems in adjusting themselves to the online classes. They stay at home which deprives them from their school environment. Online classes do not refine their skills, attitudes, critical thinking and communication skills. Students face extremely difficult to keep their concentration on online learning because they are habitual of collective learning in groups, labs and libraries. Therefore, their desired goals are not properly achieved through online based learning. A student from Karachi shared his views, "I am fond of learning in classrooms I don't feel easy with WhatsApp or online learning". Similarly, a student from Balochistan argued, "to communicate with our teachers and other students is so poor during online classes, our role is passive in classroom". Moreover, the students also shared that they do not have much time to ask question during online classes. Some of them also mentioned that getting an isolated and quite place for online classes is also a challenge. The excerpts from the interviews below supports these findings:

"During online classes, my personal experience was mixed as I faced many difficulties due to network problem and also needed a separate room for having and understanding the topics ... as I'm from a joint family system so I take some of my classes in kitchen, when I get no separate room for online classes."

Emotional distress. The data analysis revealed that students were experiencing emotional distress due to sudden implementation of online classes. Sindh was the first province where the lockdown was implemented thus students were not mentally ready for online classes due to which, fear, anxiety, panic and depression were spread among them. They suffered mental trauma and agony. During data collection process, it was keenly noticed that 70% students who participated in interviews and their responses were received have been constantly suffering from mental stress anxiety and fatigue in pandemic COVID-19. Many students commented out of their frustration due to lockdown and closure of their schools in COVID-19. One secondary school student argued, "Due to COVID-19 and resultantly lockdown, I have lost myself and feel extremely boredom to participate in online classes". Another student who is representative of matric class commented, "I feel very discomfort in these online classes as I am not able to participate as I could do in my classroom in front of students and teachers, so not attractive ... it seems I have lost the innovating approaches". This shows that students considered their educational activities as interesting part of their lives. They enjoy physical existence of both their peers and their teachers. A student claimed, we feel exhausted as we cannot meet our friends our teachers, I feel bored as I cannot interact with my fellows... it is stressful...it is exhausted". "It is not comfortable...we have lost physical contacts, the classroom environment, everything is lost...I am worried... all activities in schools, sports are closed", added another student. A student from Balochistan argued:

"Online classes during COVID-19, is the worst experience in my life. Due to this, whole year is gone without any learning. We have to be active on WhatsApp all the time which is impossible for us because of poor connection of internet, no proper communication between students and teacher... I personally do not like or satisfied with online classes."

The data analysis revealed that one of the emotional distress was because of cancelation of students' examinations and beginning of a new academic session. Students considered cancellation of exams due to pandemic as a colossal loss for their careers. A student from Balochistan discussing about her sister shared:

"My sister got above 75% marks in her 9th class exam but unfortunately, she was failed in mathematics subject. All the year, she attended tuition classes for 9th and 10th class mathematics and she was 100 % ready to get highest marks in both. Unfortunately, she has been given passing marks in both subjects that has ruined her all efforts and career..."

Positive learning experiences. The data analysis showed that the online classes through social media and other ICT apps are depriving students from face to face academic activities usually managed in the setting of the class environment. The students consider class-based teaching and learning activity more significant both in terms of quantity and quality than online classes. However, they also shared some positive learning experiences from online classes. They consider the commencement of online classes as an alternative approach for connecting students and teachers. The data analysis revealed that students selected in this research study considered online classes as an innovative drive to save students from pandemic mishap. Though the loss occurred due to closure of schools cannot be balanced yet the teaching and learning activities based on online classes were appreciated to contribute significantly to save the academic loss. Comments of student reveal that the importance of online classes cannot be under-estimated. Students are pleased at least they are saved from colossal academic loss. A student of class 9th from Karachi claimed:

"Online classes have saved us from mental disturbance and they serve as a good healer in this crisis of pandemic COVID-19...While remaining in touch with our teachers through online classes, we feel free of tension and pain because our teacher always teaches how to remain happy and learn knowledge through online classes."

Another student added, "We are thankful to teachers and school management for providing online facility of learning to save us from academic loss". "Online classes keep us punctual to attend school and syllabus is being covered even during closure of institutions", an opinion shared a student. The analysis reveals that online classes have made students responsible and alert in new way of action how to manage things during emergency and crisis. Prior to pandemic, there was no concept of online teaching but alternative approaches of pedagogy in the place of traditional classroom has been regarded as a new and innovative changes in teaching and learning process. A student from Quetta also shared same feelings as:

"No doubt... This entire situation affected our education a lot, COVID-19 changed all mediums of instruction like online classes which is good in some cases... Online classes have kept us connected ... over all in this pandemic situation, we have got new experiences and lessons."

Furthermore, the analysis revealed that the way teachers assigned different assignments was also considered very helpful in achieving desired goals. A student from Karachi during interview expresses his opinion about assignments in this way, "assignments on daily basis make me accountable and responsible to my academic career, they keep me on right way of learning". A student from Quetta, in this regard claimed, "we are getting more clear instructions and more innovative assignments by our teachers which we enjoy doing ".

Discussion

Globally, educational institutions were not ready to cope up with COVID-19 pandemic that originated from Wuhan city, China and rapidly spread throughout the world. Majority of the institutions, adopted online mode of teaching-learning using different applications and program in order to save the academic year of the students. However, the implementation of these programs were not that smooth as it was thought. Teachers, parents, educational managers and administrators all faced challenges in successful and effective implementation of online classes. Students as the most important component of learning process, are the most effected members of educational society. Along with coping with stress due to diseases of COVID-19, they also struggled to cope with the expectations of parents and teachers for their studies. Due to sudden closure of schools and commencement of online classes, without any prior situation analysis and consultation, students faced various psychological issues. Such issues have also been highlighted by Rahman (2020).

The traditional classes where students get opportunities for socialization are extremely missed by the students. The live education provides opportunities to the students to interact with peers and teachers, participate in co-curricular activities, visit libraries, laboratories, and canteens, and get separated from family members. Such experiences cannot be replaced by online or distance learning (Schneider & Council, 2020). These findings are also supported by Abbasi et al. (2020).

Findings reveal that COVID-19 pandemic has significantly changed the pedagogy as both teachers and students are constantly struggling to accrue more benefits from online classes. Further, they are coming up with new approaches of teaching in this pandemic. Findings reveal that teachers and students at school level are using different platforms of digital social media for the acquisition of knowledge and information. The findings are in lined with Stone and Logan (2018) who found that social networking tools are being considered as helping tools in online teaching learning. Major digital social media tools used by students include WhatsApp, YouTube, Zoom and web meetings. Through these platforms, students are taught through assigned tasks and ensure their punctuality.

Online classes based on ICT tools have different technical problems that include poor network connections, distractions during ongoing classes, sudden problems in the online tools and lack of facilities for conducting online classes smoothly and properly (Adnan & Anwar, 2020). responses of some students reveal that they are not comfortable with online classes as they were with face to face learning in their classes. Although there were many hurdles and limitations in the online classes in present pandemic situations, the significance of online classes for disseminating knowledge to learners at school level cannot be underestimated. These online classes have opened new ways of learning to both teachers and students who were accustomed to the habit of traditional classes.

Conclusions and Recommendations

Digital social media is playing a very central role in imparting knowledge to students in COVID-19 pandemic. Using such modern approaches of pedagogy cater their growing needs

for knowledge and fulfill their academically desired goals. This study found that the online classes are not considered as an appropriate substitute of face to face to learning, yet these classes are believed as the icon of hopes in existing dreadful scenario of pandemic. Digital social platforms have entirely changed the pedagogy and opened new ways of teaching and learning. In present scary conditions due to novel corona, online classes are the only options for retaining academic activities.

There are certain limitations of this study that include limited number of the participants and methodology used due to lockdown and closure of schools in pandemic COVID-19. Data reveal that both teachers and students are constantly struggling for the best to be achieved through online classes. Because both stakeholders know the possible repercussions may be more serious and irreparable in future if online classes are not managed regularly. This shows that online classes based on ICT tools are only significant medium in existing conditions which engage students in the teaching and learning process. It is recommended that this sort of study needs to be conducted in different parts of the country so that the integral and complete picture of education losses and the benefits of online classes could be comprehended fully. Findings of study will help policy makers to frame the policies with regard to providing online classes facility to all students across the country on equal footing. Since the domain of this study remained with only federal better managed public schools in urban areas of Sindh and private schools of Balochistan, it is required to be conducted at primary, secondary and tertiary level especially in rural settings. Due to this, more and large data could be collected which will definitely enrich the existing body of knowledge.

References

- Abbasi, S., Ayoob, T., Malik, A., & Memon, S. I. (2020). Perceptions of students regarding E-learning during COVID-19 at a private medical college. *Pak J Med Sci*, *36*(COVID19-S4), 57–61. https://doi.org/https://doi.org/10.12669/pjms.36.COVID19-S4.2766
- Adnan, M., & Anwar, K. (2020). Online learning amid the COVID-19 pandemic: Students ' perspectives. *Journal of Pedagogical Sociology and Psychology*, 2(1), 2–8. https://doi.org/http://www.doi.org/10.33902/JPSP. 2020261309
- Akram, M., Anjum, F., & Batool, Z. (2020). COVID-19: A Reason behind Digital Education in Pakistan. *Mediterranean Journal of Social Sciences*, 11(4), 19–26. https://doi.org/10.36941/mjss-2020-0037
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. https://doi.org/http://dx.doi.org/10.1191/1478088706qp063oa
- Catalano, H. (2019). Opportunities and challenges of education in the digital age. *Astra Salvensis-Revista de Istorie Si Cultura*, 7(14), 25–30.
- Creswell, J. W. (2012). *Educational research: Planning, conducting and evaluating quantitative and qualitative research* (4th ed.). Boston: Pearson Education Inc.
- Ellis, P., & Roberts, M. (2015). Leveraging urbanization in South Asia: Managing spatial transformation for prosperity and livability. The World Bank. Retrieved from https://openknowledge.worldbank.org/bitstream/handle/10986/22549/9781464806629.p df?sequence=17&isAllowed=y>

Guzman, R. De, & Malik, M. (2020). Dual challenge of cancer and COVID-19: Impact on

health care and socioeconomic systems in Asia Pacific. *JCO Global Oncology*, 6, 906–912. https://doi.org/10.1200/GO.20.00227

- Kaleem, M. F. (2020, May 8). Educational institutions to stay closed till July 15; board exams cancelled. *Daily Times*. https://dailytimes.com.pk/609118/educational-institutions-tostay-closed-till-july-15-board-exams-cancelled/
- Mukhtar, K., Javed, K., Arooj, M., & Sethi, A. (2020). Advantages, limitations and recommendations for online learning during COVID-19 pandemic era. *Pakistan Journal* of Medical Sciences, 36(COVID19-S4), S27–S31. https://doi.org/10.12669/pjms.36.COVID19-S4.2785
- Muzzini, E., & Aparicio, G. (2013). *Bangladesh: The path to middle-income status from an urban perspective*. The World Bank. Retrieved from http://crossasia-repository.ub.uni-heidelberg.de/3648/1/Bangladesh Middle Income Status.pdf
- OECED. (2019). *PISA 2021 ICT framework OECD*. Retrieved from https://www.oecd.org/pisa/sitedocument/PISA-2021-ICT-Framework.pdf
- Rahman, A. P. (2020). Isolation and mental health: the psychological impact of lockdown. *The Hindu*. https://www.thehindu.com/society/isolation-and-mental-health-the-psychological-impact-of-lockdown/article31237956.ece
- Rose, S. (2020). Medical student education in the time of COVID-19. *JAMA*, 323(21), 2131–2132. https://doi.org/10.1001/jama.2020.5227
- Rundle, A. G., Park, Y., Herbstman, J. B., Kinsey, E. W., & Wang, Y. C. (2020). COVID-19 – related school closings and risk of weight gain among children. *Obesity*, 28(6), 1008– 1009. https://doi.org/10.1002/oby.22813
- Saykili, A. (2019). Higher education in the digital age: The impact of digital connective technologies. *Journal of Educational Technology and Online Learning*, 2(1), 1–15. https://doi.org/10.31681/jetol.516971
- Schneider, L. S., & Council, M. L. (2020). Distance learning in the era of COVID-19. Archives of Dermatological Research. Retrieved from https://doi.org/https://doi.org/10.1007/s00403-020-02088-9
- Shahzad, S. K., Hussain, J., Sadaf, N., Sarwat, S., Ghani, U., & Saleem, R. (2020). Impact of virtual teaching on ESL learners' attitudes under COVID-19 circumstances at post graduate level in Pakistan. *English Language Teaching*, 13(9), 1. https://doi.org/10.5539/elt.v13n9p1
- Stone, S., & Logan, A. (2018). Exploring students' use of the social networking site WhatsApp to foster connectedness in the online learning experience. *Irish Journal of Technology Enhanced Learning*, 3(1), 42–55. https://doi.org/10.22554/ijtel.v3i1.28
- Valverde-Berrocoso, J., & Fernández-Sánchez, M. R. (2020). Instructional design in blended learning: Theoretical foundations and guidelines for practice. In A. V. Martin-Gracia, *Blended Learning: Convergence between Technology and Pedagogy* (pp. 113–140). Cham: Springer.
- Zhong, B. L., Luo, W., Li, H. M., Zhang, Q. Q., Liu, X. G., Li, W. T., & Li, Y. (2020). Knowledge, attitudes, and practices towards COVID-19 among Chinese residents during the rapid rise period of the COVID-19 outbreak: a quick online cross-sectional survey. *International Journal of Biological Sciences*, 16(10), 1745–1752.

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