

# Journal of Educational Research & Social Science Review (JERSSR)

---

## Fighting COVID-19 and Continuing the Education: A Case Study of the University of Baltistan, Skardu

1. Dr. Haji Karim Khan

(Corresponding Author)

University of Baltistan, Skardu Email: [hajikarim.khan@uobs.edu.pk](mailto:hajikarim.khan@uobs.edu.pk)

2. Sajjad Hussain

Lecturer, Department of Languages and Cultural Studies, University  
of Baltistan, Skardu Email: [sajjad.sering@uobs.edu.pk](mailto:sajjad.sering@uobs.edu.pk)

---

### Abstract

COVID-19 pandemic resulted in uncertain changes in the working of universities across the globe. Studies showed that teaching and learning at the higher education institutions in a far-flung, undeveloped, remote mountainous regions with unstable and substandard internet access posed huge challenges to both the teachers and the students under the siege of the pandemic. This case study has portrayed how a neophyte university in a remote context in Pakistan responded to the Pandemic by shifting the paradigm from a traditional mode to a virtual and blended mode of teaching and learning. Data for the study were collated through interviews, document reviews, and participatory and non-participatory observations. Findings show that vibrant leadership, dedication from the faculty members, and timely response and support from the administration play a key role to sustain higher education amidst internal and external challenges. Findings further portray the process of how the university continued the higher education with care and wellbeing of the students, faculty, and staff members. The study has pertinent implications for university leadership and higher education providers in the country and elsewhere.

**Keywords:** COVID-19, Pandemic, Neophyte University, Higher Education Leadership, Teaching and Learning

### Background

The COVID-19 pandemic has badly impacted all the professions across the world. Doctors, nurses, paramedics, and security officials are involved in face-to-face battles across the borders. Likewise, university academics and officials are also part of the battles: they fight with COVID-19 as well as scarify their time and lives to sustain and continue the higher education services to the communities (El Said, 2021; Schwartz et al, 2021). This battle is comparatively more complex, multifaceted, and challenging in remote areas given the lack of basic facilities.

Prior to the pandemic, universities smoothly ran their activities; however, the post-pandemic implications compelled almost all the universities to shift their practices to an online mode. There were several reasons for this decision and the key reason was based on the national, regional, and international apprehensions pertaining to the pandemic. As per the internationally portrayed scenarios, the world or part of the world would live with the coronavirus for an uncertain period. Therefore, waiting for the world to resume its normal routine practices would have been a waste of time and resources. Thus, most of the universities decided to shift their practices from a traditional mode of teaching to an online blended approach (Sony, 2020). Such a decision pushed the universities into a huge paradigmshift and they began to fight multiple battles simultaneously (Malik, Ajmal & Jumani, 2020; Islam et al, 2021; Rapanta et al., 2020).

This case study was carried out at the University Baltistan, Skardu capturing how the university managed to continue the education and assessment during the COVID-19 pandemic. The University of Baltistan, Skardu is a neophyte university serving the mountain communities in the Gilgit-Baltistan region. The university began its journey as a sub-campus of the Karakorum International University in the year 2011. Later on, in the year 2017, the sub-campus was upgraded and made a full-fledged university. In June 2018, the university got its first Vice-Chancellor and began its journey as the only center of higher learning in the Baltistan region of Pakistan. The university has 44 academic staff and above 25 administrative and support staff members. In addition,

the Online Campus Management System, including the components of LMS and Student Information System (SIS), was already in use in the university. This system was built by the experts of the university. As the purposefully built building is under construction in the suburbs across the river; therefore, the university operates in various campuses/blocks either provided by the provincial government or managed on a rental basis by the university. Above two thousand students are enrolled in various undergrad and graduate programs in the university. Likewise, there are eight colleges affiliated with the university across the province.

In response to combat the pandemic, the young university played an active role in protecting its students, faculty, staff members, and communities through robust awareness campaigns, the development of SOPs, and implementing them religiously. To continue its services to the communities, the University decided to shift its practices from a traditional mode to an online mode of practices and thus went through a mega paradigm shift. This paper provides an analytical story of the university to continue higher education during the pandemic in the lap of the mighty Himalayas and Karakoram.

### **Conceptual Framework and Literature**

The framework for emergency education developed by Burde et al. (2017) provides a basic foundation for the conceptual map for literature review. The framework includes access, learning continuation, and protection and well-being. Generally, theories on emergency education mostly focus on addressing the continuation of education during natural disasters and wars. However, the sudden spread of pandemics tend to change the perspectives on the emergency education.

The sudden outbreak of the pandemic placed the remote and mountainous communities between the devil and the deep sea, i.e., on one hand, the pandemic and the other the pathetic internet connection to deliver and receive the lectures living away from all basic ICT facilities in the mountains (Iqbal, Khan & Hussain, 2021). Across the world, the institutions of higher learning had to shift to the virtual of online mode of teaching and learning (Rahman, 2021; Dahwan, 2020; Malik, Ajmal, & Jumani, 2020).

The unexpected situation posed a number of challenges and threats to educators and students around the world. For instance, challenges faced by university students and teachers showcase lack of electricity, unstable and pathetic internet access, lack of ICT infrastructure/online resources, lack of training to use the online resources, non-availability of smartphones or laptops on the part of the students due to their poor economic conditions (Rahman, 2021, Malik et al., 2020). However, access to education was a priority keeping the stakeholders safe from the pandemic, but the drastic shift from the traditional or conventional model of education to the online mode of teaching and learning was no less than a challenge for the universities (Rahman, 2021; Dhawan, 2020). Universities had to make arrangements overnight to train their teachers and students to access the university's Learning Management System (LMS) to continue their educational endeavors without any interruption (Rapanta et al., 2020; Dahwan, 2020).

Studies also show that the sudden shift in the mode of teaching and learning added with the lack of basic ICT-related infrastructure on the part of the students in the mountainous region caused mental stress and anxiety to both the teachers and the students (Kalsoom, 2021; Dahwan, 2020). The region of Gilgit-Baltistan generally lacks access to IT resources and the Internet, and in the case of women, access to the Internet, there are always challenges given the cultural norms and values (Iqbal, Khan & Abbas, 2021).

Teaching beyond the conventional manner brings a number of issues and prospects with it. The process of online teaching and learning in the time of the pandemic provided both the teachers and the learners with unexpected experiences. The unplanned shift to the online mode of education brought varying experiences to all the stakeholders, some were positive and some were distressing and full of anxiety (Islam et al., 2021; El Said, 2021). From the teachers' perspective, for most of the teachers, it was a completely new experience of recording and uploading the video lectures to the university's LMS. However, their prior knowledge of using the LMS helped them to a greater extent in coping with the unexpected exposure to the camera. Recording the lectures for the first time sitting in front of the camera was no less than a challenge for most of the university teachers worlover. Similarly, the students also had issues in acculturating themselves with the online mode of learning, but both of them adapted themselves with the new mode of teaching and learning in no time (El Said, 2021). Online mode of teaching and learning have robbed the students of the charm of learning from

peers in classroom discussions. As a result, they have been deprived of social and emotional skill development due to the online mode of learning (Schwartz et al., 2021; Bhamani et al., 2020).

In addition, assessment through the online mode posed another challenge for the universities. Studies show that the lack of experience in online assessment on the part of both the teachers and students caused anxiety and mental stress to them (Kalsoom, 2021; Bakhmat, Babakina, & Belmaz, 2020). Pakistani universities conventionally take closed book examinations, and first time in history the universities had to shift towards the online and open-book examination. The experience of taking open-book examinations brought a shift in the perspective of the examiners and the examinees. The students no longer needed to rote learn the content of their courses anymore, rather the open-book assessment system provided them with an opportunity to be more critical and creative than to just reproduce whatever the authors had presented in their books (Ashri, & Sahoo, 2021). Furthermore, research has revealed that the online mode of examination is more effective for formative assessments rather than summative ones (Khan et al., 2021). Thus, the shift in the mode of education under the pandemic opened up many avenues to learn, reflect, and relearn about the best ways to educate the students at the tertiary level in a mountainous region of a developing country.

### **Research Design**

We used a qualitative case study approach (Bogdan & Biklen, 1992) to carry out the study. Studying the phenomenon of how the university continued the education and carried out the assessment from March 2020 to December 2020 (two semesters) needed an indepth case-study approach. We conducted sporadic interviews with the senior management team, faculty, and staff members, and also reviewed documents such as meeting minutes, plans, corresponding emails, and letters (Denzin, Lincoln, 1994). In addition, we also conducted participatory and non-participatory observations of meetings and online sessions during the specified period. Likewise, data from our own lived experiences as faculty and staff members were also a major part of the analysis (Denzin, 1989).

### **Data analysis**

We employed a staggered approach for the analysis including data preparation, cleaning, coding/developing marginal notes, developing memos based on the emerging themes from the initial analysis (Darlington & Scott, 2002). In the second phase, we shared the individually developed memos with each other and discussed them thoroughly. We also went back to the initial data set where necessary (Denzin & Lincoln, 1994). This made us clarifying confusions and enabled us to come up with stronger judgments. In the third stage, we improved, and strengthened finalized the themes. We had data in two languages including Urdu and English. For reporting purposes, we translated all the selected qextracts or uotations (from interviews) into English. One of us is a language faculty member; thus, it helped us to translate the interview extracts or quotations without changing the essence of the quotes.

We followed the ethical considerations of social science research (Khan, Hussain & Alam, 2021) throughout the study. We omitted the actual names of the participants and received their consent to include the data in the study.

### **Findings**

The findings of the study have been presented in various sections based on the analysis. The sections include how the university responded to the pandemic, accessed the students during the locakdown, and continued their education.

### **Planning the journey: accessing and training**

Reopening after the winter break (due to the harsh climatic conditions, the university observes longer winter break) in March, the university had to take certain big decisions given the COVID-19 pandemic. The founding Vice-Chancellor of the university held series of online and face-to-face meetings with the faculty and staff members and developed a roadmap so as to implement a paradigm shift adapting the online mode of teaching and assessment. In the light of the meeting decisions, SOPs were developed considering the geographic conditions (scattered valleys) and unavailability or limited availability of the IT resources and Internet service in the remote regions. It is noteworthy that the online Campus Management System, developed by the IT experts of the university, was already in practice from the very beginning of the university and was used by the faculty members, management staff, and students. Given the COVID-19 pandemic, this facility was further finetuned while adding on further components.

Studies have shown that change is a slow and continuous process; however, the COVID-19 pandemic has triggered the process and has made it faster and speedy. The pandemic is drastic, uncertain, and unpredictable. As a result, it has resulted in a huge paradigm shift in higher education across the globe. In such a scenario, leadership plays a key role in making sense of the change process, identifying the threats and opportunities, educating and preparing teams to cope up with the change process, as well as establishing sound, practical, and viable future directions. Thus, it was indeed a challenging step for a young and neophyte university to make a sudden shift from a traditional way of teaching to an online mode. In addition, the university had recently inducted about 27 new faculty and staff members and an equal number of visiting faculty members had also joined. Though they were highly educated, yet they needed to socialize into the university's cultural milieu and work patterns. Therefore, through using virtual mode, it was of a paramount importance to arrange series of orientation programs for the newly inducted faculty and staff members so as to orient them about the university's norms, values, and practices as well as training them on how to use the Learning Management System.

Thus, the university began to orient and train its faculty and staff members through face-to-face (in smaller groups) and online sessions and tutorials. The Professional Development Center of the university arranged sessions for the faculty members in the university as well as in the affiliated colleges. In addition, the Head of Departments, and senior faculty members began mentoring and coaching the newly inducted members of the faculty and students. The Focal Person for the COVID-19 pandemic and his team went door to door and also arranged series of online demonstrations to educate the communities about the pandemic. The department of Chemistry developed hand sanitizers and distributed them freely. Likewise, the students and faculty members of the department of Business Management developed facemasks and provided them to the users with nominal costs.

The second challenge was reaching out to the students. This was particularly true in the case of the newly inducted students in the first semesters of various Masters' programs. Thus, the students had been enrolled, yet had never physically visited the university. Thus, the faculty members did not know about the students and about their individual backgrounds. Without knowing the students' backgrounds, conducting online teaching and assessment was indeed a gigantic challenge. Likewise, the newly enrolled students were not familiar with the LMS and thus they were in a dire need of support. In addition, it was important to know about the students' readiness, in terms of the availability of laptops, computers, or cell phones and the internet connectivity. Given such concerns, the university used a snowball approach to reach out to the students. Once the contacts were received, faculty members developed WhatsApp groups for all the cohorts, and through phone and video calls trained the students how to use the LMS. In most cases, reading materials and audio or video lectures were shared through the WhatsApp Groups. The Class Representatives played a key role to bridge the communication gaps between the students and the faculty members.

The HEC guideline and support mechanism helped to a greater extent during the planning phase. The series of online seminars, meetings, and colloquia were key to the professional learning of the faculty members and management staff during the transition. The Online Academic Council of the university (April 28, 2020) also approved the online examination procedures. In addition, a technical committee was also formed to monitor and provide support in the context of Online teaching and learning.

#### **Beginning the journey: addressing the internal and external challenges**

Through the survey of the students and analysis of the contextual factors, the university felt that live online teaching was not possible in the region. Therefore, asynchronized mode of teaching was employed (*Rapanta et al., 2020*). Faculty members began to record their lectures and then upload them on the online portal of the LMS. Online assignments, projects, and quizzes were also uploaded. Once the journey began, the majority of the students complained of not being able to download the large lectures due to weak and slow internet connectivity. As a result, it was decided to break down the lectures into smaller clips of a maximum of 20 to 25 minutes each, as a result, the issue was resolved.

Secondly, anchoring, mediating, overseeing, or monitoring online teaching and learning turned out as a real marathon. The academic heads (Head of Departments) played a key role to initiate, encourage and sustain good practices. They took the role of mentors for the faculty members and students. Besides academic and administrative support, they also worked as mediators and links

between the faculty members, students, and the administration. Likewise, the office of administration played a pivotal role in connecting, supporting, encouraging, and stimulating good practices during the transition.

Analysis of data also showed that online assessment was also a gigantic challenge. Technical and cultural factors surfaced as key hindering and hampering factors. The IT skills of most of the newly enrolled students showed a bleak picture. For instance, most of them had never used a computer in the past and a considerable number of them had never used a cell phone; yet, all of a sudden, they were supposed to depend upon the technology. In addition, in a patriarchal and rural society, boys can move from one place to another without any harm in search of internet connectivity, unlike them, girls cannot do so. As a result, girls were not able to find a viable solution. It also surfaced that a considerable number of the girls were reluctant to present their work online as they did not want to appear in front of a camera. A number of girl students requested to submit hard copies of their projects and assignments as either their parents did not allow them to use a cell phone and the internet or they did not have internet and cellphones in the remote regions.

In order to address the internet issue in the remote areas, the university established resource centers in those regions where IT facilities were provided while observing strict COVID-19 SOPs. Four such centers became functional across the regions. These centers were established as a joint venture with the local government. The local government provided building space (and in some cases computers too) whereas the university provided human resources, computers, and internet connectivity.

As for as online assessment is concerned, the Online Academic Council of the university recommended three components of exams for the final term examinations. Those components included Multiple Choice Items, Open-Book tests, and Viva Voce. Once again, faculty members from the university and affiliated colleges were given orientations through a two-day long training program using a hybrid (face-to-face and online) mode about how to design and assess MCQs, Open-Book exams, and Viva Voce. In the case of the MCQs, question banks were developed by the respective faculty members whereby the LMS generated individualized question papers for the students. Hence, there were lesser or no chances of cheating or use of unfair means.

Making certain mathematical symbols and expressions on the LMS initially turned up as a challenge. The IT team resolved this issue through continuous efforts. Critical, reflective, analytical, and application-based questions were given for the open-book component of the exams. Viva examinations were arranged over the LMS as well.

During the journey, we observed that the lack of IT skills among the majority of the students was a genuine challenge. It was particularly a core issue for the students who were just enrolled in the first semester. The faculty members and IT staff trained the individual students via telephones and WhatsApp calls. When some students could not explain the IT-related issues via telephone calls, they were asked to take screenshots and send them to the IT department. This enabled the IT staff members to make sense of the issues and address them accordingly. As a whole, it was a very exasperating and time-consuming exercise. Educating the students and enhancing their IT skills was the first key priority. In order to educate and prepare the students about the final term examinations, a variety of approaches were used. For example, the Examination Office developed a set of Frequently Asked Questions (FAQs) in English and Urdu, made Tutorial Clips, prepared Video demonstrations, and conducted sessions on the local Radio in two different languages (Urdu and in a local language). A faculty member reflected, "Some cultural factors are also there to influence our work during the pandemic. Such external factors make us perform various roles. We work simultaneously as community mobilizers, parent educators, social activists, reformers, change agents, initiators, caregivers and so on".

Besides, faculty members arranged one-to-one interaction with the students through WhatsApp calls on a need basis. Faculty members also developed mock examinations for the training purposes of the students. Such mock arrangements were not only helpful for the students but also for the faculty members to know the shortcomings of the examination system and to respond to them accordingly.

### **Continuing the journey with care and protection**

Based on the lived experiences the university leadership realized that creating a culture of technology was the only panacea for sustainable online practices. Institutionalized online programs seemed to be

the only solution through the adaptation of contextually relevant initiatives. The university developed a staggering plan to further finetune and sustain the paradigm shift. For example, continuing the capacity building of faculty and staff members and students enabling them to adapt to a virtual and blended approach of teaching and learning. The plans include; continuous professional development of faculty, staff, and students; resource development and mobilization; optimal usage of the already available resources; and addressing the challenges through innovative and contextually relevant responses. Negotiations with partner universities about the establishment of Blended Learning Centers (BLCs) are in progress and soon various centers will be opened across the region.

In order to reach out to the students and support the newly enrolled students, the university decided to continue the peer coaching and mentoring mechanism. The students who had a comparatively better understanding and skills of using IT are a great support to educate, encourage, and help their peers during the transition. Analysis of the data showed that the university does not see the students as passive recipients; rather, they are contributors to the development of knowledge, skills, and attitudes. Similarly, the realization of the importance of educating the parents about the paradigm shift was also observed. Therefore, the university (during the Spring semester 2020) had already conducted radio sessions in (Balti and Urdu languages) so that parents could also ask live questions and get the response. Such programs will also continue in the future. Such an overarching approach of educating communities and parents along with the students showcases a transition or a systemic change where the university needs to inform, educate and engage all the stakeholders in the change process. “We have implemented innovative plans in terms of strengthening IT resources in the university. Realizing the importance of IT support, we have appointed Deputy Director IT along with three team members so as to facilitate the paradigm shift”, said a member of Senior Management.

In the region, there is only a single internet service provider company through a fiber connection. Widening the Gilgit to Skardu road is in progress, as a result, the region observes fiber break most often. Therefore, in order to make a sustainable transition, the university needs to take decisions considering the contextual realities. The Higher Education Commission has granted some budget to all the universities for IT-related equipment and support during the pandemic. As a result, the university has purchased and installed relevant equipment along with an additional server to further strengthen the facilities. The IT team member said, “in the initial phase, we have connected our three campuses through intranet so that we are able to continue the online activities in case of unavailability of the internet in an emergency due to fiber break. In future, we will connect our regional resource centers through the intranet”.

Talking about sustainable future targets an academic head mentioned:

We have kept close coordination and links with all the stakeholders, particularly with our students, and we are continuously engaged in reflective practices. These individual reflections play a pivotal role as key components of the mega and meta reflection on the part of the university. As a result, we are able to take wise, careful, and contextually viable steps in becoming a hub of higher learning for the remote and mountainous communities.

Another academic mentioned:

Though the COVID-19 has hugely impacted our personal and professional lives, yet, on other hand, it has opened up several windows for grooming and development. It has enabled us to know our strengths and weaknesses, which is, indeed, a stepping stone for development.

When the doors of the classrooms remained closed due to the pandemic, explorations did not stop. The university continued the search for knowledge and exploration. A three-member expedition team, led by the Vice-Chancellor, dugout and unearthed centuries-old historical monuments in the surrounding mountains. The team, then went to the farthest valleys and mountains in the Himalayas to connect the dots of the ancient history in the mountain ranges. They explored ageless signs and codes encrypted in the form of symbols, words, and caricatures on the rocks and boulders. Such explorations and discoveries shed light on the hidden and uncharted history of the region that had never become part of the larger discourses in academia. The exploration has opened up hundreds of windows for further investigations and discoveries. In pursuit of highlighting national and international issues in the context of sustainable development, the group also went to the Deosai plateaus, the second-highest plateau in the world, and cleaned up some part of it so as to keep the environment clean. This is, though a small step taken, yet has huge symbolic implications for the society.

### **Discussion**

Literature suggests that change is a slow and everlasting process (Fullan, 1989) and thus it takes centuries for a university to become the hub of knowledge creation and dissemination. The university under study is just a few years old. Becoming the pioneer university in shifting to the online mode of education in the region and continuing the teaching and learning (El Said, 2021) and assessment (Ashri, & Sahoo, 2021) was a challenge. Yet, the university aptly managed to sustain the education during the pandemic. Meeting the perceptions and demands of communities, cultural norms, and values, and expectations of internal and external stakeholders, are indeed the responsibilities of the contemporary institutions of higher learning (Repanta, et al, 2020). Being a neophyte university in the remote region and combating the COVID-19 pandemic to sustain higher education in the region was a real challenge for the university. Three things seem to emerge from the findings in connection with sustaining the higher education during the pandemic including; a) vibrant role of leadership, b) the commitment of the faculty members, and c) timely support from administration.

The region of Gilgit-Baltistan is rich in multiple respects, the only thing that is important is to initiate, encourage, carry out, disseminate, and open up doors for further discoveries. Optimal planning during the pandemic has resulted in not only the continuation of higher education in the region but also the opening of new avenues for exploration and learning. In this regard, the roles of a university in remote contexts are manifolds including internal and external factors such as the provision of IT resources (Islam et al, 2021; Iqbal, Khan & Hussain, 2021). However, using time wisely and responding to the pandemic from the very beginning, and optimal utilization of all resources has made the university a model of success. It was observed that the exploration and learning continued in various alternative forms and modes. For instance, when face-to-face teaching and learning was banned due to the pandemic, a group of researchers went to the fields for explorations, discoveries, and community education. Non-traditional approaches were being used such as FM radio programs to reach out to the communities. Likewise, the asynchronized mode of online teaching was seen working well during the pandemic. It enabled the students to work and learn based on flexible working hours (*Rapanta et al, 2020*). As a result, they did not miss any lessons.

Findings imply that careful initiation, implementation, and institutionalization of strategies always yield better results (Fullan, 1989). Thus, the university developed a careful plan to continue the education during the pandemic emergency (Burde, 2017). The plan included ensuring access, making the learning happen, and ensuring well-being and protection of the students, faculty, staff during the pandemic emergency.

### **Conclusion**

This case study of a neophyte university in the remote region of Pakistan has highlighted how the university combated the COVID-19 pandemic and continued the higher education provision in the region. Given the COVID-19 pandemic, the university decided to shift the practices from a traditional mode of teaching to an online blended approach. The decision was made collectively. Factors including the vibrant leadership, dedication from the faculty members, and supportive administration along with continuous reflection and decision-making enabled the university to access the students, continue the learning and education, through protecting the students, faculty, and staff members during the pandemic. There were internal and external factors impeding the decisions and practices. As a result, the university not only continued the education of the students but also decided to educate and inform the communities and parents about the processes of education and assessment during the pandemic.

The following recommendations have surfaced based on the findings of the study.

- Universities need to be vigilant about future pandemics and/or disasters and devise proper mechanisms to combat them.
- There is a need to not only develop and strengthen ICT resources but also train students, faculty, and staff to be able to use them.
- A non-graded course on the use of ICT in university education should be offered in the universities as a foundation course for the first-year students in the universities.

### **References**

Ashri, D., & Sahoo, B. P. (2021). Open book examination and higher education during COVID-19: Case of University of Delhi. *Journal of Educational Technology System, 50*(1), 73-86.

- Bakhmat, L., Babakina, O., & Belmaz, Y. (2020). Assessing online education during the COVID-19 pandemic: A survey of lectures in Ukraine. *Journal of Physics: Conference Series*, 1-10.
- Baran, E. & Correia A. (2014). A Professional Development Framework for Online Teaching. *TechTrends*, 58(5), 96 —102.
- Bhamani, S., Makhdoom, A. Z., Bharuchi, V., Ali, N., Kaleem, S., & Ahmed, D. (2020). Home learning in times of COVID: Experiences of parents. *Journal of Education and Educational Development*, 7(1), 09-26.
- Bogdan, R., & Biklen, S. K. (1992). *Qualitative research for education: An introduction to theory and methods* (2<sup>nd</sup> ed.). London: Allyn and Bacon.
- Burde, D. et al. (2017). Education in Emergencies: A Review of Theory and Research. *Review of Educational Research*, 87(3), 619–658, DOI: 10.3102/0034654316671594
- Darlington, Y., & Scott, D. (2002). *Qualitative research in practice: Stories from the field*. Buckingham: Open University Press.
- Denzin, N. K. (1989a). *Interpretive biography*. London: Sage Publications Inc.
- Denzin, K., & Lincoln, Y. S. (1994). Entering the field of qualitative research. In N. K. Denzin & Y. S. Lincoln (Eds.), *Handbook of qualitative research* (pp. 1 – 17). London: Sage Publications.
- Dhawan, S. (2020). *Online learning: A panacea in the time of COVID-19 crisis*. *Journal of Educational Technology System* 49(1), 5-22.
- El Said, G. R. (2021). How did the COVID-19 pandemic affect higher education learning experience? An empirical investigation of learners' academic performance at a university in a developing country. *Advances in Human-Computer Interaction*, 1-10
- Fullan, M. G. (1989). Implementing Educational Change: What We Know. Education and Employment Division Population and Human Resources Department. PHREE Background Paper Series, Document No. PHREE/89/18
- Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). The difference between emergency remote teaching and online learning. *Educause Review*, 27. Retrieved from <https://er.educause.edu/articles/2020/3/the-difference-between-emergencyremote-teaching-and-online-learning>
- Iqbal, M., Khan, H. K., & Abbas, Z. (2021). *Inequities and Challenges Faced by the Girl Students in Accessing the Information Communication Technology in the Mountainous Region of Pakistan*, *Research Journal of Social Sciences & Economics Review* 2(1), 488 – 496. DOI: [https://doi.org/10.36902/rjsser-vol2-iss1-2021\(488-496\)](https://doi.org/10.36902/rjsser-vol2-iss1-2021(488-496))
- Islam, D., Chowdhury, S. A., Akter, S., Arafat, A.B.M.Y., & Azam, K.G. (2021). Challenges in distance learning during the pandemic situation of coronavirus (COVID-19): A perspective from Bangladesh. *American International Journal of Social Science Research* 6(2), 1-15.
- Kalsoom, Q. (2021). *Covid-19: Experiences of teaching-mothers in Pakistan*. *Journal of Gender Studies*, DOI: 10.1080/09589236.2021.1923464
- Khan, H. K., Hussain, S. & Alam, M. (2021). *Ethical Considerations in Social Sciences: The Dilemmas of Informed Consent*. *Research Journal of Social Sciences & Economics Review*. 2 (2) (April – June), 189 – 195. DOI: [https://doi.org/10.36902/rjsser-vol2-iss2-2021\(189-195\)](https://doi.org/10.36902/rjsser-vol2-iss2-2021(189-195))
- Khan, M. A., Vivek, V., Khojah, M., Nabi, M. K., Paul, M., & Minhaj, S. M. (2021) *Learners' perspective towards e-exams during COVID-19 outbreak: Evidence from higher educational institutions of India and Saudi Arabia*. *International Journal of Environmental Research and Public Health* 18, 02-18. <https://doi.org/10.3390/ijerph18126534>
- Malik, F., Ajmal, F., & Jumani, Z. (2020). *The effects of COVID-19 on education in Pakistan: Students' perspective*. *International Journal of Distance Education and E-Learning* 6(1), 217-234.
- Rahman, A. (2021). *Using students' experience to derive effectiveness of COVID-19-lockdown induced emergency online learning at undergraduate level: Evidence from Assam, India*. *Higher Education for the Future* 8(1), 71-89.
- Rapanta, C., Botturi, L., Goodyear, P., Guardia, L., & Koole, M. (2020). *Online university teaching during and after the Covid-19 crisis: Refocusing teacher presence and learning activity*. *Postdigital Science and Education* 2, 923-945.
- Rhode, J., Richter, S. & Miller, T. (2017). Designing Personalized Online Teaching Professional Development through Self-Assessment. *TechTrends* DOI 10.1007/s11528-017-0211-3

- Schwartz, K. D., Exner-Cortens, D., McMorris, C. A., Makarenko, E., Arnold, P., Van Bavel, M., Williams, S., & Canfield, R. (2021). COVID-19 and student well-being: Stress and mental health during return-to-school. *Canadian Journal of School Psychology*, 36(2), 166-185.
- Sony, V. K. (2020). Global Impact of E-learning during COVID 19. SSRN Electronic Journal. Electronic copy available at: <https://ssrn.com/abstract=3630073>