

Online Learning amid the Second Wave of the Covid-19 Pandemic: Students' Perspectives

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Abstract

The unforeseen transition to online learning (OL) due to the COVID-19 pandemic in developing countries has left learners with inconsistent and unequal access to digital learning opportunities. The present study was aimed at evaluating the effectiveness and improvements in OL amid the second wave of the COVID-19 pandemic in the context of Pakistan. The findings of the study revealed that the majority of higher education students have serious reservations about the effectiveness of OL in Pakistan. However, students have reported productivity improvements in their online classes amid the second wave as compared to the first wave of the COVID-19. Lack of access to a reliable internet connection, lack of classroom socialization, lack of self-motivation, and ineffective online teaching methodologies were some of the major OL challenges reported by Pakistani higher education students. The findings of the present study have the pedagogical implications for OL in developing countries.

Keywords: online learning; COVID-19; education systems; students' perspective

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Introduction

The first case of the Covid-19 pandemic was reported in China on November 17, 2019 (Richardson, 2020), whereas the first case outside mainland China was reported in Thailand on January 13, 2020 (Parry, 2020). As of April 04, 2021, the Covid-19 pandemic has caused over 2.8 million worldwide deaths (Worldometer, 2021). The pandemic has severely affected various social sectors, including health and education. It has, in particular, affected higher education and has exposed many inadequacies and gaps in education systems throughout the world. In response to the first wave of the Covid-19 pandemic, governments across the world decided to temporarily close educational institutions (Dhawan, 2020). According to the statistics of the World Health Organization, over 1.6 billion learners were affected by the temporary closure of educational institutions at the peak in April 2020 (Demuyakor, 2020). The situation forced educational institutions across the world to shift to distance learning to contain the deadliest virus.

Many research studies across the world investigated the challenges and opportunities for online education amid the pandemic. Researchers investigated the effectiveness of online education both in the western (Crawford et al., 2020; Li & Bailey, 2020; Lipscomb & Tate, 2020) and non-western contexts (Adnan & Anwar, 2020; Toquero, 2020; Qazi et al., 2020). However, research has revealed that the Covid-19 pandemic has a much stronger impact on the education systems of less developed regions such as Africa and Asia as compared to developed regions (Aristovnik, Keržič, Ravšelj, Tomažević, & Umek, 2020). For instance, Adnan and Anwar (2020) reported that online learning (OL) is not as effective as conventional learning in developing countries like Pakistan because of technical and monetary issues.

As the world was experiencing signs of the curve 'flattening' after the first wave, few countries reopened their educational institutions following a long break (Donitsa-Schmidt & Ramot, 2020; Melnick, & Darling-Hammond, 2020). Pakistan also opened educational institutions on September 15, 2020, following a six-month break (Ali, 2020). Prime Minister of Pakistan Imran Khan tweeted to welcome youngsters back to educational institutions. He said, "Today we welcome millions of children back to school. It is our priority and collective responsibility to ensure that every child can go to school safely to learn". The educational institutions were opened following the top-to-bottom approach after a recommendation from the National Command and Operation Center

(NCOC) of Pakistan (Ali, 2020). The NCOC is working to synergize and articulate unified national efforts against Covid-19 in Pakistan.

The government of Pakistan implemented an alternative day schedule in educational institutes across the country (Ali, 2020). According to the plan, only 50% of students could attend classes while the remaining were instructed to attend the classes on the next day. Apart from the re-opening of educational institutions, the government removed almost all of its Covid-19 related lockdowns across the country. However, as predicted by scientists, the second wave of Covid-19 soon hit countries around the world, including Pakistan. The authorities reported 313 fatalities on November 20, 2020, the highest number of deaths since the start of the pandemic (Worldometer, 2021). Two months after the reopening of educational institutions, the government on November 26, 2020, closed all educational institutions again across the country till early January 2021 because of the rapid increase in the number of infections and deaths (Achakzai, 2020).

Review of Literature

The majority of the higher educational institutions in Pakistan are following traditional approaches to teaching and learning (Asad, 2020). The Covid-19 pandemic has challenged the traditional education system of Pakistan as the educational institutes of Pakistan were forced to shift to distance learning. Numerous researchers investigated the accessibility, learning pedagogy, affordability, and educational policies of the government of Pakistan during the first wave of the pandemic. According to Khan et al. (2020), the masses of Pakistan were not fully aware of the seriousness of the situation during the first wave of the pandemic. Similarly, the educational institutes of Pakistan and their students were not ready to provide quality and worthwhile education to their students during the first wave of the Covid-19 pandemic. A study conducted by Qazi et al. (2020) revealed that Pakistani students were even less satisfied with the quality of OL as compared to the students of Brunei.

A review of the previous literature in the context of Pakistan has highlighted various challenges and opportunities related to online education during the first wave of the Covid-19 pandemic. The lack of faculty members training related to information technology, lack of prior experience of teaching, the maintenance of OL engagement (Farooq, Rathore, & Mansoor, 2020), poor internet connections, unavailability of the internet in far-flung areas, lack of classroom interaction and internet expenses (Adnan & Anwar, 2020) were some of the major challenges

and opportunities reported by previous studies in the context of Pakistan. On the contrary, a study conducted by Shahzad et al. (2020) highlighted OL opportunities like the accessibility of teachers, the availability of recorded video lectures, and the value of time and money. To our knowledge, no research study has investigated the effectiveness of OL during the second wave of the Covid-19 pandemic. The findings of the present study will offer present-day and unique insights from the context of Pakistan, which may further contribute to the research area under examination.

Objectives of the Study

The objectives of the research study are listed below.

- To investigate the students' perceptions towards the effectiveness of OL amid the second wave of the Covid-19 pandemic.
- To compare the effectiveness of online learning during the first and the second wave of the Covid-19 pandemic.

Research Questions

The research questions of the study are listed below.

1. How do higher education students perceive the quality of online education amid the second wave of the Covid-19 pandemic?
2. Are there any improvements in the quality of online education in the second wave as compared to the first wave of the Covid-19 pandemic?

Methodology

The present study was conducted using a quantitative research design. The participants of the study were 200 undergraduate and postgraduate students of various public and private sector universities of Pakistan. The study sample was chosen using convenience sampling. The technique was employed while keeping in mind the constraints of cost, time, and access (Wright, 2005).

A self-developed instrument was used to measure and compare the effectiveness of online education during the first and second waves of the Covid-19 pandemic. Demographic variables such as gender, age, education level, and academic performance (CGPA) were added to enhance the efficacy of the research findings. The data of the study were collected using an internet-mediated survey. An online survey created through Google Forms was shared with the respondents of the study

through WhatsApp. The data obtained through the survey were analyzed using the SPSS.

Findings

The participants of the study were 200 undergraduates, postgraduate and doctorate students of various public and private sector universities in Pakistan. Of the 200 participants, 144 (72%) were undergraduate, 50 (25%) were postgraduate and 6 (3%) were doctoral students of high education institutes of Pakistan. The ages of participants were in between 16-30 years. Out of 200 students who participated in the survey, 64 (32%) were between the age of 16-20, 123 (61.5%) were between the age of 21-25 and 13 (6.5%) were between the age of 26-30. Moreover, as shown in figure 1, female participants represented 41% (n=118) of the study sample, whereas male participants represented 59% (n=82) of the study sample.

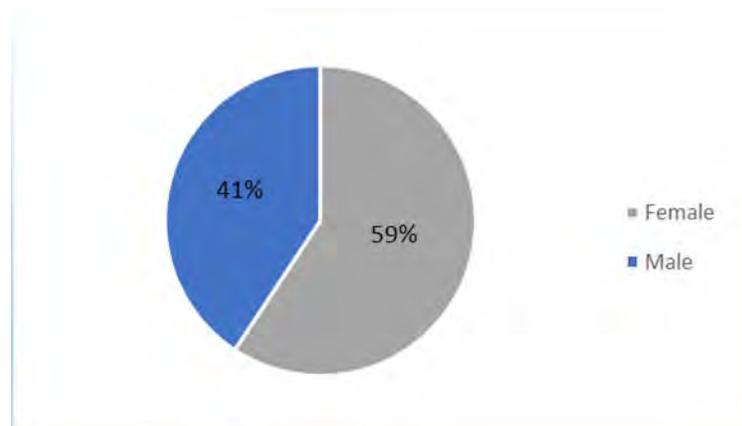


Figure 1. Gender of Respondents

The study was aimed at investigating the perspectives of students concerning the effectiveness of OL during the second wave of the Covid-19 pandemic. To ensure the diversity of perspectives participants were surveyed from different parts of the country. As shown in figure 2, the study included 28% participants from Islamabad, 28% from Khyber Pakhtunkhwa, 27% from Punjab, 14% from Kashmir, 2% from Sindh, 15 from Gilgit Baltistan, and 0.5% from Balochistan.

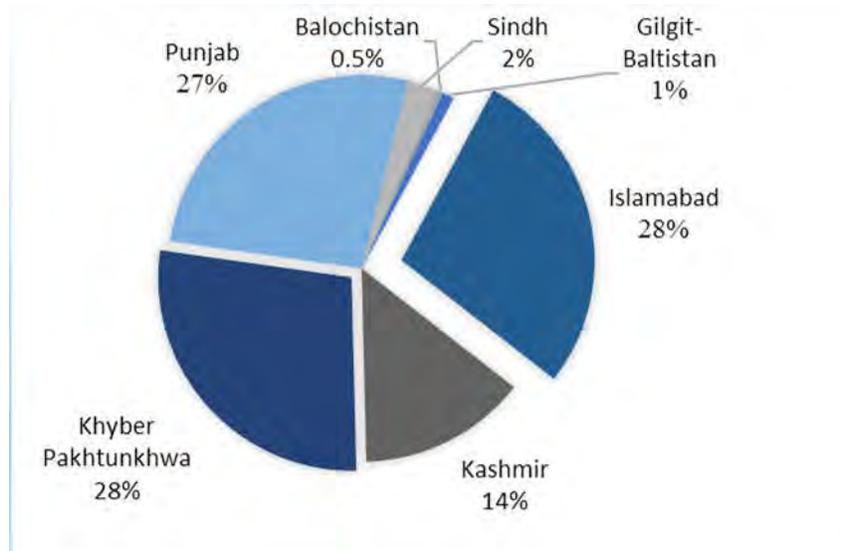


Figure 2. Residential Location of Respondents

The participants of the study were asked about the quality of internet signals in their residential areas. As shown in table 1, the results of the analysis revealed that 25.5% of the participants were having low or very low-quality internet signals in their respective residential areas. However, the majority of the participants of the study (n=92) were having neither high nor low signals. It is important to mention that only 4% of the surveyed participants were having access to the high bandwidth of internet signals.

Table 1
Response of quality of internet signals

Quality of Internet Signals	Frequency	Percent
Very high quality	8	4.0
High quality	49	24.5
Neither high nor low quality	92	46
Low quality	29	14.5
Very low quality	22	11
Total	200	100.0

As shown in figure 3, only 19.5% (n=39) of participants reported satisfaction with OL, whereas 42% (n=84) of participants were not

satisfied with the effectiveness of distance learning. Moreover, 38.5% were having neutral opinions about the effectiveness of OL in Pakistan.

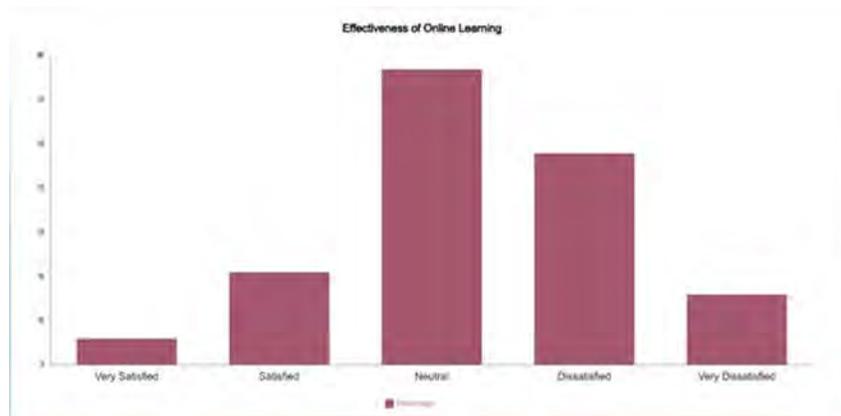


Figure 3. Effectiveness of online learning

To compare the quality of OL and conventional classroom learning, participants of the study were asked about the effectiveness of OL as compared to traditional classroom learning. Of the total 200 participants of the study, 53% of students reported that OL is not as efficacious (“ineffective” and “very ineffective”) as compared to traditional classroom learning. On the other side, only 21% of students reported that OL is productive (“effective” and “very effective”) as compared to traditional classroom-based learning. As shown in figure 4, 26% of the surveyed students were having neutral opinions about the effectiveness of OL as compared to traditional classroom learning. Overall, 53% of the students reported that OL is ineffective, 21% of the students were in favor of OL, whereas 26% of the surveyed students reported that there is no major difference between the two mediums of learning.

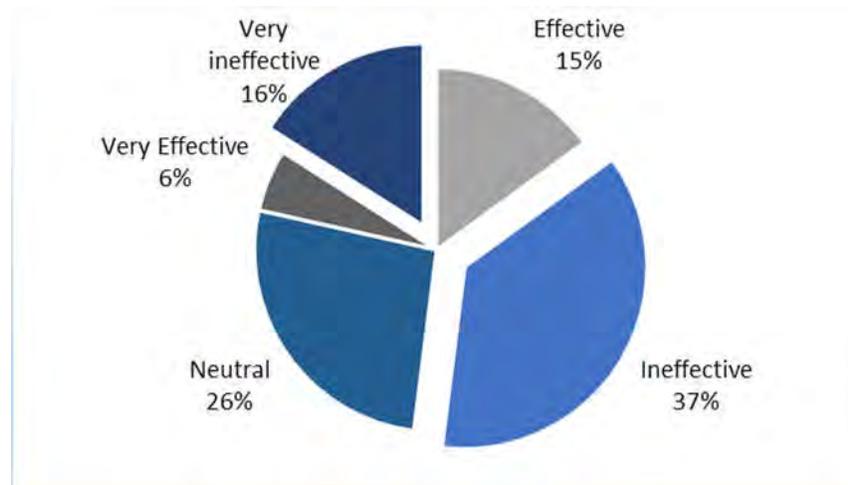


Figure 4. Comparison of Online and Traditional Classroom Learning

While responding to whether OL amid the second wave of Covid-19 is better than compared to OL during the first wave of the Covid-19 pandemic in Pakistan. About 29.1% of participants of the study reported that OL in the second wave is better compared to OL amid the first wave of the Covid-19 pandemic. Only 24.6% reported that there are no major improvements in OL in the second wave of the pandemic, while over 46% of participants of the survey stated that there is no major difference in OL amid the first and second wave of the Covid-19 pandemic.

Table 2.

Response on online learning in the first and the second wave of COVID-19

Response on online learning	Frequency	Percent
Better	58	29
Same	93	46.5
Worse	49	24.5
Total	200	100.0

The results of the study also revealed that most of the students (39.5%) were either “satisfied” or “very satisfied” with the method used by their instructors/teachers during online teaching amid the second wave of the Covid-19 pandemic. While 30% of surveyed students were not happy with the teaching method of their instructors. Moreover, 34% of participants were having neutral opinions. In summary, the opinions of

the participants in the study about satisfaction with online teaching methodologies were equal and strewn.

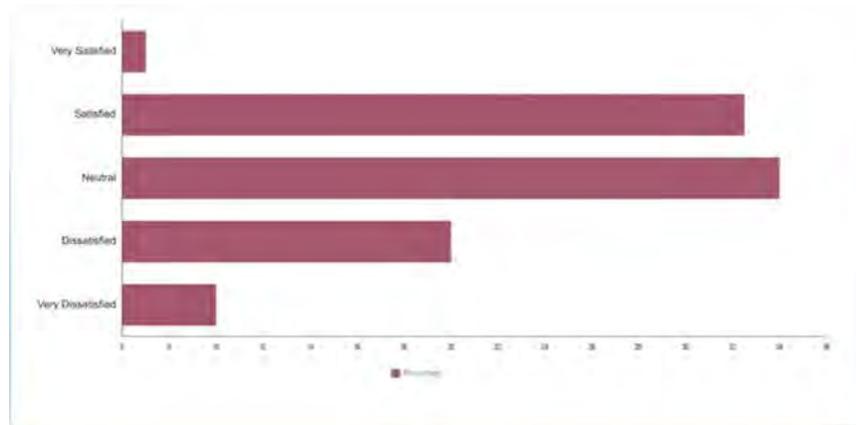


Figure 5. Student Satisfaction with Online Teaching Methodology

When exploring the opinion of higher education students concerning the challenges of OL, 54% of students reported that access to a reliable internet connection is the biggest challenge of OL, 38% of students stated that lack of classroom socialization negatively influences the quality of online education, whereas 32.5% of the participants of the study reported that they lack self-motivation for OL. Moreover, 30.5% of students reported an unsuitable home environment and 29% of students reported ineffective online teaching as the other major challenges associated with OL as shown in figure 6. Ineffective learning content and poorly scheduled assessment criteria were also some of the other common problems faced by students during online education.

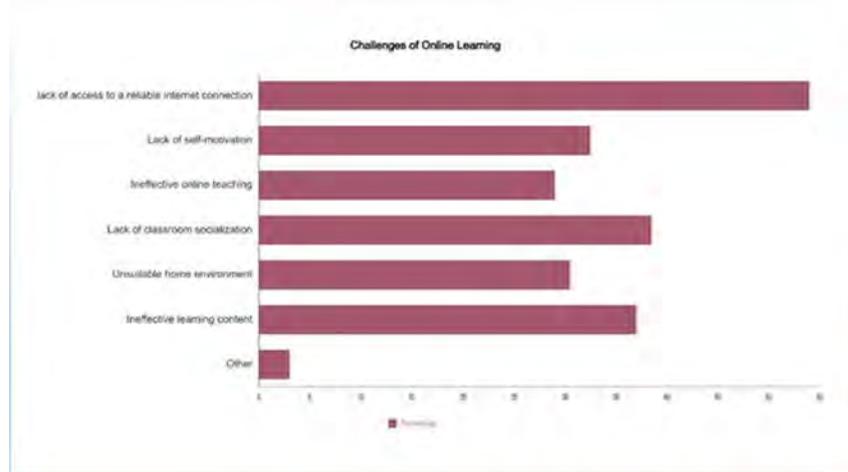


Figure 6. Challenges of Online Learning

Discussion

The Covid-19 pandemic has severely affected the education of 1.6 billion learners, from pre-primary to higher education, in over 190 countries (Demuyakor, 2020). However, the sudden transition from traditional classroom learning to online learning (OL) was less smooth and more demanding for developing countries like Pakistan. The present study was aimed at investigating the effectiveness of OL amid the second wave of the Covid-19 pandemic from the perspectives of higher education students. The participants of the study were selected from various geographical regions of Pakistan to ensure the diversity of opinions. Most of the surveyed students showed serious reservations about the effectiveness of OL amid the Covid-19 pandemic, but 29.1% of participants of the study reported a positive change in their experience of OL in the second wave as compared to their experience of OL during the first wave of the Covid-19 pandemic.

The findings of the study revealed that 25.5% of the surveyed students lack access to high-speed internet. Access to a stable and reliable internet connection is considered the most important prerequisite of effective OL (Leonard, & Guha, 2001). It is important to mention that only 4% of the surveyed participants were having access to an internet connection with enough bandwidth to smoothly run simultaneous streams. Since students usually prefer active learning environments and participate in a highly interactive classroom environment, they expect the same in their online classes (Dziuban et al., 2003). The results of the

analysis revealed that 42% (n=84) of students who participated in the survey were not satisfied with OL, whereas 38.5% of participants of the study were having neutral opinions about the effectiveness of OL. This conveys that online education has completely redefined student satisfaction with OL and teaching.

Comparing the effectiveness of online and traditional learning, 53% of students stated that OL is not as effective as traditional classroom learning. However, 29.1% of participants reported that OL in the second wave is comparatively better than OL amid the first wave of the Covid-19 pandemic. Even before the Covid-19 pandemic, the concept of traditional education was changing radically over the last few years. According to a survey conducted by the Babson Survey Research Group, more than 30% of higher education students are taking at least one distance learning course in the United States. However, in the case of developing countries, governments and higher education bodies need to play an important role to facilitate educational institutions to improve the quality of online education. For instance, the higher education commission of Pakistan recently released a grant of Rs. 10 million for every public sector university to help them in establishing supportive arrangements needed to improve the quality of online education (Mirjat, 2020).

In summary, we found that the majority of the students were still not satisfied with their online learning (OL) experience, however, they have experienced positive improvements in the last few months. The participants reported a lack of access to reliable internet connections among the major stumbling blocks of online training. They have also highlighted other major challenges like lack of self-motivation, unsuitable home environment, lack of classroom socialization, ineffective learning content, ineffective online teaching methodology, and poorly scheduled assessment criteria. About 54% of respondents of the survey reported that access to a reliable internet connection is the biggest challenge of OL, 38% of students stated that lack of classroom socialization negatively influences the quality of online education, whereas 32.5% of the participants of the study reported that they lack self-motivation for OL. On the other hand, despite the recent technological improvements by educational institutions in the last few months, 30% of surveyed students were not happy with the teaching methodologies/styles of their instructors during online classes.

Conclusion

The Covid-19 pandemic has not only exposed the fragility of the education systems across the world but has left learners with inconsistent and unequal access to online learning (OL) opportunities. The present survey was carried out to evaluate the effectiveness of OL amid the second wave of the Covid-19 pandemic in the context of Pakistan. The findings of the study revealed that the majority of higher education students have serious reservations about the effectiveness of OL in Pakistan. However, students have reported productivity improvements in their online classes amid the second wave as compared to the first wave of the Covid-19. Lack of access to a reliable internet connection, lack of classroom socialization, lack of self-motivation, ineffective online teaching methodologies/styles, ineffective learning content, and poorly scheduled assessment criteria were some of the major OL challenges reported by Pakistani higher education students.

With this unanticipated shift away from traditional classroom learning to online education, people are still wondering whether the sudden adoption of OL due to the Covid-19 pandemic will continue to persist after the pandemic, and how this shift will influence the future directions of the global education market. It is important to develop education systems that have all the requisite resources to swiftly adapt and rapidly minimize the harmful consequences of any potential future disruptions. As mentioned earlier, the sudden transition to OL was somewhat less smooth and more demanding for developing countries. In the context of Pakistan, the transfer to OL was primarily challenging due to poor internet penetration and limited technological infrastructures. The situation has been particularly acute for public educational institutions due to limited financial independence. Policymakers in the education systems of developing countries need to look beyond immediate education goals and should work on sustainable strategies that address the future challenges of online education.

Limitations

The present study was based on the perspectives of the higher education students of Pakistan. Future studies should also focus on the students of primary educational institutions in Pakistan. The small size of the sample and non-random selection of participants were also some of the major limitations of the present study.

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