Impact Of Context On Student Learning During Covid-19 In Pakistan

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Abstract

The Covid-19 pandemic has affected higher pedagogy across the world both in the short term and long term. There is a prevailing impression in both academia and the general public internationally that the temporary complete shift to distance learning in many parts of the world during the pandemic was necessary, but also resulted universally in learning losses. Building on the survey conducted by Lee, Fanguy, Lu & Bligh (2021) in universities in China and Korea that indicated counterintuitive positive learning experiences for students, this paper aims to study whether a similar account emerges in the Pakistani context. Adapting Lee, Fanguy, Lu & Bligh's survey instrument for a Pakistani audience, findings from the students of one private and one public university indicate contrasting experiences. In the private university, online learning seemed to be successful in terms of organization, guidance and support from instructors, engagement in learning, and relationships with classmates, that helped the students to progress in their online learning. In contrast, the public university students indicated significant dissatisfaction on the aforementioned aspects of their distance learning experiences when compared to their pre-COVID learning experiences. These findings suggest that positive distance learning experiences are implementable in a developing country context even with a strong digital divide, but that sufficient planning, communication and oversight is not present, it can be counterproductive. The findings will be valuable for institutions of both the public and private sector to improve the quality of distance education by catering to the needs of students, so that more opportunities can be provided for self-directed learning. The meaningful contrast in data also suggests that an adapted version of Lee, Fanguy, Lu & Bligh's survey could be fruitful for providing voice to student experiences with distance learning and potentially as a larger scale assessment tool in Pakistan.

Keywords Covid-19, distancing learning, higher education, student experience, emergency remote teaching.

Introduction

COVID-19 and Disruption in Education

Coronavirus 2019 was declared a worldwide pandemic by the World Health Organization in March 2020 (World Health Organization, 2020). After the emergence of COVID-19, social distancing was imposed as the most effective preventive strategy (Del Rio & Malani, 2020). Due to this, over 1.5 billion learners in 165 countries were affected by COVID-19 school closures (UNESCO, 2020a). Of these, tertiary level learners made up more than 220 million (UNESCO, 2021). The unprecedented emergency in the education sector presented the need to employ distance learning solutions to ensure academic continuity (UNESCO, 2020b). Previously, such solutions have been implemented in times of man-made or natural crises. For example, in the aftermath of the 2011 earthquake in New Zealand (Ayebi-Arthur, 2017); following the fall of Taliban in Afghanistan in 2009 (Beebe, 2010); post-hurricane Katrina in USA in 2005 (Lorenzo, 2008) and during student protests in South Africa in 2016 (Swartz, Gachago, & Belford, 2018). However, with COVID-19, it was the first time that the disruption was experienced across the globe and at all educational levels.

The Covid-19 pandemic has affected higher pedagogy across the world both in the short and long term. There is a prevailing impression in both academia and the general public internationally that the temporary complete shift to distance learning in many parts of the world during the pandemic was necessary, but also resulted universally in learning losses. Building on the survey conducted by Lee, Fanguy, Lu & Bligh (2021) in universities in China and Korea that indicated counterintuitive positive learning experiences for students, this paper aims to study whether a similar account emerges in the Pakistani context. This research explores the counterintuitive effects, if any, on higher-ed student experience of distance learning during the pandemic. Specifically,

- What are the similarities and differences in student experiences in public and private sector universities?
- Are there significant differences in student experience before and during the transition to distance learning during the Covid-19 pandemic?

This study is essential to capture the diversity of student experiences during the pandemic. The findings will set the stage to navigate higher education in the post-pandemic world.

Emergency Remote Teaching (ERT)

The distance learning solutions employed during the pandemic are different from the usual online instruction. In 2020, the term "emergency remote teaching" was formally proposed to describe the teaching modality that was taken up in response to the pandemic. Hodges et al (2020) describe emergency remote teaching (ERT) as "a temporary shift of instructional delivery to an alternate delivery mode due to crisis circumstances. It involves the use of fully remote teaching solutions for instruction or education that would otherwise be delivered face-to-face or as blended or hybrid courses and that will return to that format once the crisis or emergency has abated". The solutions offered varied greatly between contexts (UNESCO, 2020b). In China, universities were able to capitalize on previous investments in technological infrastructure to maintain a swift response to the pandemic and switch to online teaching (Yang & Wang, 2022). In India, over three thousand academic sessions, both live and recorded, were broadcasted on radio and television (Gaba, Bushan & Rao, 2021).

It is worth noting that not all academics agree with adoption of the term "Emergency Remote

Teaching". For example, Naidu (2020) calls this a short-term fix for long-term problems and believes that "we ought not to be returning to where we were pre-COVID-19" as this would mean not having learnt from this experience to prepare for possible future disruptions in education.

Challenges with ERT

Emergency remote teaching during the pandemic has not been without challenges. Education systems during these times require "flexibility and resilience" that comes with "collaboration, care, preparation, expertise, resources and learning lessons from the past" (Veletsianos & Houlden, 2020). However, institutes were largely unprepared for the shift they were required to implement rapidly, sometimes within weeks (Baggaley, 2020). The unpreparedness stemmed from a lack of technological infrastructure including technologies such as learning management systems (Cavus, Mohammed and Yakubu, 2021), devices (Rahiem, 2020), and internet connectivity (Marinoni, Land & Jensen, 2020). It also stemmed from a lack of trained faculty and staff equipped to move course materials, including assessments, online (Brooks & Grajek, 2020; Sharadgah & Sa'di, 2020).

 At the other end, university students across the world from the UK to Algeria reported psychological distress due to the disruption caused by the pandemic (Packham, 2020; Blizak et al 2020; Al-Tammemmi, 2020). Donnelly & Patrinos (2021), reported that the majority of the students surveyed experienced some level of learning loss. This can, at least in part, be attributed to a lack of motivation which was consistently reported during the pandemic (Aguilera-Hermida, 2020; Nambiar, 2020; Radu et. al, 2020).

ERT called to attention critical issues of equity within the educational system; while the developed world was able to report almost universal access to online learning, the developing world struggled to make the transition. Even within classrooms, the digital divide was apparent between students of varying socio-economic backgrounds (Marinoni, Land & Jensen, 2020; Melnyk, Pypenko & Maslov, 2020).

Other issues highlighted include the inadequacy of online/virtual assessments to evaluate learning outcomes and prevent academic dishonesty (Sharadgah & Sa'di, 2020); higher teacher workloads (Aristovnik et. al, 2020; Rannastu-Avalos & Siiman, 2020); privacy and confidentiality concerns with the use of online tools including social media (Turnbull, Chugh & Luck, 2021); and difficulties in managing study-life balance (Šestanović & Siddiqui, 2021).

All is not lost

Reporting on the challenges within the educational system due to the disruption caused by the pandemic has been aplenty. However, remarkably, there have been glimpses of hope and opportunities in the literature.

Maloney and Kim (2020) argue that COVID-19 has called attention to the inherent inequities in the education system as well as presented a unique pressing need for pedagogical innovation. Thus, making this "the right time to imagine a learning future 30 years out" (Bonk, 2020). UNESCO, UNICEF and the World Bank conducted a survey on national education responses to COVID-19 school closures in 2020; countries reported important growth in lifelong learning opportunities, increase in admissions to science, technology, engineering and mathematics (STEM) programs, as well as advances in the digitalization of university functions.

Johnson, Veletsianos & Seaman (2020), highlight the resilience of the higher education sector in rapidly repositioning from in-person to online course delivery. In addition, this repositioning inadvertently allowed for the

capacity building of faculty and staff to adopt new tools and systems of teaching and learning (Marinoni, Land & Jensen, 2020).

At the micro-level, researchers recognized that during the pandemic "students were more than just powerless or reckless in these challenging situations, but much more thoughtful and resilient than we had anticipated" (Lee et al. 2021). The authors found that students tried to make the best of the new circumstances to create meaningful learning experiences. In 2022, as we recover from the disruptions caused by the pandemic, it will be especially important to study all aspects of student learning, including possible positive acknowledgements, in order to unlock the pedagogical potential of the future.

University education during the pandemic in Pakistan

In Pakistan, as the virus began taking hold in the country, educational institutions including universities were closed in March 2020 (Latif & Sajid, 2020). The country's Higher Education Commission supported the Higher Education Institutions to launch virtual learning systems to ensure learning continuity. This was done through developing an "online readiness" policy framework that allowed institutions to judge their readiness on different levels including for students, faculty members, facilities such as libraries and laboratories, and for the university as a whole (Tahir, 2020). It is interesting to note that of the universities that provided readiness data, 84.51% declared overall readiness to conduct online classes for their students. HEC Chairman, Mr. Tariq Banuri, is of the opinion that these measures will have long-term benefits such as producing graduates who are better equipped for technological jobs (Witze, 2020).

On the other hand, in a bid to counter digital inequities, students campaigned against conducting online classes (Waqar, 2020). Further, Qamar & Bawany (2021) report that the absence of classroom interaction is a leading demotivating factor for both students and teachers. Students also expressed privacy concerns as social media and instant messaging platforms were increasingly used to further teacher-student and student-student communication (Abid et. al, 2021), whereas teachers reported feeling overburdened with the added workload due to online teaching (Zeeshan, Chaudhry & Khan, 2020).

Methodology

This study aims to use an adapted version of Kyungmee et al. (2021) survey instrument to answer the following research question, with its accompanying sub-questions.

Research Question: Are there any counterintuitive effects on higher-ed student experience of distance learning during the pandemic.

1. What are the similarities and differences in experiences between student experiences in public and private sector universities?
2. Are there significant differences in student experience before and during the transition to distance learning during the Covid-19 pandemic?

Student 'experience' is taken to mean those elements of studying a course that are significant to both understanding the course material and in sustaining motivation to study. For the purpose of this student 'experience' is broken down into the below components:

1. Organization of course materials
2. Guidance and support from instructors
3. Opportunities for engagement in learning
4. Opportunities for relationship building and maintenance with classmates

Research Method

After receiving permission from the authors, Lee, Fanguy, Lu & Bligh's (2021) survey was administered on students in Pakistan. The survey was used as is and adaptations were not made as the survey addressed all areas that the research

was exploring. Data was sampled from one public and one private university. Our survey instrument allowed us to conduct mixed methods research. We were able to conduct statistical analysis of the responses to our likert scale questions, whereas the open-ended questions provided meaningful insight to support the statistical findings.

<u>Research Setting and participants</u>

Data was collected from a sample of students of one public and one private university. For public sector university, a notice was posted in the student lounge, and students who were interested

contacted the concerned faculty and filled in the survey. For the private university, faculty contacted fifteen former students who got the rest of the surveys filled from students they knew so snowball sampling was used for sampling. Results of the public sector and private sector university cannot be generalized due to the sampling techniques used. For public sector university, students were not given payment for participating in the survey but only a limited number of students participated and for the private sector snowball sampling may have issues of bias as well.

Table 1 The Sample Distribution

University Name	Type	Location	Sample Size				
			Gender	Stage of Study	Academic Department	Number of Students Surveyed	Mode of Data Collection
Government College for Women	Public - Women Only	Jhang, Punjab, Pakistan	Female	Sophomore/ Junior Year Undergrads	Humanities and Social Sciences	100	Printed survey (hard copy)
Lahore University of Management Sciences	Private - Co-Education	Lahore, Punjab Pakistan				100	Online survey

At the private university, the faculty were given support in implementing online learning and technology resources were provided to students if needed to cope with the sudden shift. The context of the other university was very different from the private university, as there is scarcity of resources in public universities to provide training to faculty in online learning, and class sizes are large. Public university students have less technological resources and universities cannot support students who do not have the required resources. Hence these differing higher

education contexts within Pakistan provide a good contrast for comparing student educational experiences.

Data collection

Data was collected through online surveys in the private university and through hardcopy surveys in the public university. These mediums were chosen to allow for maximum accessibility in each context. Students were not asked for any identifiers such as names on the survey. Demographic questions such as gender, age,

educational level, and student status were asked in the first part of the survey. Remaining questions focused on student satisfaction on varied areas of face to face and online interaction such as organization of program, instructional clarity, student engagement, peer interaction, support from instructor, and group projects. Questions were asked twice with a change in wording to gauge correct response of respondents. The rest of the questions pertained to different aspects of online and face to face education to measure student satisfaction in different areas such as program organization, instructional clarity, student engagement, support from the lecturer, relationship with classmates, and group projects. Students were also asked to share their preference for taking some courses online once regular face-to-face classes resume.

Data Analysis

Data analysis of the responses of the students to the survey indicate a significant difference in experiences between the public and private universities. The responses were processed using a spreadsheet software to find the mean, standard deviation, correlation and statistical significance of each of the pre and during Covid answer categories. In the open-ended questions, students were asked about the positive and negative aspects of online learning. Student responses were studied to identify relevant themes which are discussed in the next section.

Results

Students at the private sector university showed some preference for online courses after the pandemic (M = 3.88, SD = .544) whereas students at public sector university did not show any preference for online courses or face to face courses (M = 3.04, SD = .744). A difference between student responses to the above question was significant (t = 6.212, p = .000). In the case of the private university, students who were

more satisfied with the university before the pandemic continued to feel more satisfied regardless of the instructional medium, there is a correlation between the perceived quality of university study before and during the pandemic (correlation = .569, p = .000). However, for the public sector university, students who were more satisfied with the university before the pandemic felt distressed with the change in instructional medium (correlation = .239, p = .000).

Responses to the open-ended questions explained reasons for the distress of students. In the open-ended questions, students were asked about the positive and negative aspects of online learning. Majority of the students who filled in the questionnaire (80% of students), from the public sector university, mentioned staying at home and flexibility of context as the positive aspects of online study during COVID 19. The negative aspect shared by the majority of students was not having lectures from the instructor as there was no set up for online learning at the public university, also there was no support from instructor and peers. Five students stated, "No Learning" as the negative aspect and one student wrote, "Depression, anxiety and stress". For students at the private sector university, the majority of the students (75% of students who filled in the questionnaire) mentioned support from the instructor, and flexibility of submission date as the positive aspects. Ten students stated, "Not coming to university" as the positive aspect. The negative aspects (80% of students who filled in the questionnaire) were too many tasks to complete and difficulty in understanding content in online learning. Five students mentioned a negative impact on learning, as one student wrote, "Compromised learning, learning was not the same".

For students at private university, student responses to the following statements did not change significantly (t= 6.722, p=.05).

- My online course programme has been well organized and running smoothly (pre-COVID-19 M = 3.88 to post-COVID-19 M = 3.80)
- I have had a clear idea of what I was expected to do in my online courses (pre-COVID-19 M = 3.87 to post-COVID-19 M = 3.78)
- My lecturers/professors engaged me actively in learning content (pre-COVID-19 M = 3.85 to post-COVID-19 M = 3.79)
- I have received effective support and guidance from lecturers/professors for my online courses (pre-COVID-19 M = 3.89 to post-COVID-19 M = 3.80)
- I have developed and maintained good relationships with my classmates online (pre-COVID-19 M = 3.86 to post-COVID-19 M = 3.79)
- I have made good progress towards the goal of my online study (pre-COVID-19 M = 3.81 to post-COVID-19 M = 3.75)

Despite the sudden shift to online learning, for private university students online learning seemed to be successful in terms of organization, guidance and support from instructors, engagement in learning, and relationships with classmates, that helped the students to progress in their online learning.

For the public-sector university students, responses to the following statements changed significantly (t= 6.611, p= .000):

- My online course programme has been well organized and running smoothly (pre-COVID-19 M = 3.87 to post-COVID-19 M = 3.00)

- I have had a clear idea of what I was expected to do in my online courses (pre-COVID-19 M = 3.88 to post-COVID-19 M = 3.11)
- My lecturers/professors engaged me actively in learning content (pre-COVID-19 M = 3.86 to post-COVID-19 M = 3.09)
- I have received effective support and guidance from lecturers/professors for my online courses (pre-COVID-19 M = 3.89 to post-COVID-19 M = 3.15)
- I have developed and maintained good relationships with my classmates online (pre-COVID-19 M = 3.85 to post-COVID-19 M = 3.21)
- I have made good progress towards the goal of my online study (pre-COVID-19 M = 3.87 to post-COVID-19 M = 3.11)

For the public sector university, there is a significant difference between pre-COVID and post-COVID responses of students. The responses of students indicate that online courses were not organized, students were not engaged in learning, there was no guidance from lecturers for online courses, students did not have relationships with classmates and could not progress in their online study. Before COVID-19, courses were organized and expectations were clear, students were engaged in learning, there was support from the instructor, and students had good relationships with classmates. These factors helped the students to progress in their study.

Discussion
The findings indicate that there are some expected, and some counterintuitive insights into student experiences across the two contrasting universities. That there were positive experiences in the private sector university is unexpected given the largely negative perception as can be gauged by articles printed in

prominent newspapers at the time (Bureau Report, 2020; Gabol, 2020; Ali, 2020) that covered students protesting against online learning and the early-stage impact literature on Covid-19 student experiences in Pakistan that was published at the time (Dogar et al, 2020; Farooq, Rathore and Manzoor, 2020). The pandemic brought to prominence how socio-economic inequality has contributed to the digital divide in developing countries like Pakistan, where internet availability ranks 84th globally (Economist Impact, 2022). With internet access at 35 percent (Baloch, 2020), many students do not have access to internet connections and computers in their houses, to which they would be largely restricted during lockdowns with university campuses closed. Students who can afford the fees of private universities would as a whole be socio-economically better off than their public sector counterparts, and this is an important factor to take into consideration for why they may have had better experiences. It is also important to factor in that the private university was better resourced and was able to more rapidly and efficiently deploy online learning environments and build the capacity of its faculty to deliver quality online teaching.

When the decision was taken by the Higher Education Commission (HEC) in Pakistan to adopt complete distance learning during the height of the pandemic, this was after over 84% of public universities declared their readiness to transition to online teaching; the university under study for the research paper being among them. However, it is evident from this paper's findings that student learning experience was significantly hampered; students who were residents of far-flung rural regions without internet access and computers could not easily access course materials online nor digitally work on and submit assignments. This is in agreement with what newspapers and academic literature at the time in Pakistan was indicating, but it is in contrast to the narrative of successful online adoption that was being conveyed by the HEC (Banuri, 2020; Higher Education Commission, n.d.). Students cited poor quality of online learning resources that were uploaded onto their learning management systems, and that it was still in some cases difficult to reach out to faculty members for support. This seems to indicate that online learning does not de-facto enhance or sustain the quality of teaching or access to learning resources for students.

Intuitively, student motivation to study took a hit in both public and private universities. The findings indicate that the lack of in-person interaction with faculty members, but especially with their classmates in the same physical space, took a toll on their capacity to focus and their socio-emotional well being. In Pakistan where there is already a dearth of mental health support resources for the general public, both public and private universities need to invest in well-trained counselors and mental health awareness programs for their university communities. It may also suggest that since today Covid-19 is a better researched disease with mass vaccination campaigns having been run and there being better treatments available, that setting universities into complete virtual mode may not be needed anymore. The consequences of learning losses and compounding mental health complications for the most socio-economically disadvantaged being a larger worry than the need for strict social distancing.

This paper's findings suggest that positive distance learning experiences are implementable in a developing country context even with a strong digital divide, but that when sufficient planning, communication and oversight is not present, it can be counterproductive. The findings will be valuable for institutions of both the public and private sector to improve the quality of distance education by catering to the needs of students, so that more opportunities can be provided for self-directed learning. The

meaningful contrast in data also suggests that an adapted version of Lee, Fanguy, Lu & Bligh's survey could be fruitful for providing voice to student experiences with distance learning and potentially as a larger scale assessment tool in Pakistan.

As the sample size was restricted to two universities, and 200 female students within the humanities and social sciences disciplines, it means that the results are not generalizable. They do not necessarily reflect the experiences of their male counterparts, and cannot be automatically assumed to be similar to the experiences of other students across the country. Nevertheless, the findings provide useful insights into the diversity of student experiences during the pandemic, and show the potential promise of the survey tool as an assessment instrument that could be used diagnostically more widely in Pakistan by the HEC.

It is possible that students may be feeling nostalgia for pre-Covid times that may be playing a role in their rating pre-Covid experiences more highly than they might have otherwise had baseline data been collected before the pandemic started.

Conclusion

There was a diversity of student experiences in higher education in Pakistan through the pandemic. Though the results of this study are not generalisable due to the limited sample size, nevertheless the contrast between the public and private university student responses show that there were positive experiences and improvements in certain aspects of learning experiences for students, where care was taken to transition to online with appropriate planning and resource allocation. They indicate that in the 'new normal' for higher education in a post-pandemic world, it would be important to sustain those elements of distance learning in the form of partially self-paced hybrid learning in order to bring out the best aspects of both in-person interaction and of educational technology. That there are findings that run counterintuitive to general perception, such as the positive experiences of online learning of students at the private university, in line with the analysis of Lee, Fanguy, Lu & Bligh (2021), also indicate the importance of scaling up such student satisfaction surveys across the country in order to paint a more comprehensive picture in order to better regulate and improve Pakistan's higher education system.

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