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MESSAGE FROM THE EDITOR-IN-CHIEF

It gives me immense pleasure to write this message for the first ever journal published by the Faculty of Liberal Arts and Human Sciences (FLAHS) at Ziauddin University. This edition is the first of many to come as we steadily move forward in our endeavour to research a useful learning experience for all.

Like almost everything else, the work for the first edition of Journal of Liberal Arts and Human Sciences (JLAHS) came to a standstill during the pandemic. Between 13-14 November 2020, FLAHS organised its first multidisciplinary international virtual conference which was called "Diversity, Inclusion and Equity: Synergies and Challenges in the Wake of Covid-19." The idea was to present the research work of the presenters and the essays of the plenary speakers as the first edition of JLAHS. I'm pleased to say that albeit a little later than we had anticipated, the first edition of the journal is now live, and we hope that researchers young and old can benefit greatly from it. This first edition includes essays from two plenary speakers and four research articles from the participants of the conference.

I would like to thank our authors for being so accommodating and patient with us during this process. I'm also grateful to the peer reviewers, editorial board and its members and the advisory council for all their hard work and support.

We look forward to the support of our readers and hope to see some interesting contributions for our upcoming editions. Let's surpass boundaries and come together to create some invigorating and important research!

Dr. Shehla Najib Sidiki
Editor-in-Chief

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RETHINKING ACCESS AND EQUITY IN EDUCATION

Dr. Frances Schoonmaker
Columbia University

I have deliberately chosen to frame my remarks around access and equity because I think the two underpin any discussion of diversity and inclusion. The access question has to do with who has access to the benefits of society and on what terms—who's in, who's out? Thinking about equity, what are the grounds for decision making about who's in and who's out fair and just? These are old questions in education, reflective of society and social arrangements within any given country. The old questions are heightened by new arrangements necessitated by Covid 19.

This essay suggests that if we are to address the critical issues inherent in "Diversity, Inclusion and Equity: Synergies and Challenges in the Wake of COVID-19," in deep and meaningful ways, we need to 1) rethink what schools are for, 2) rethink cultural myths and unconscious assumptions that guide our decision making about who's in and who's out, and 3) rethink our personal knowledge.[1] In addressing these points, I reflect on their intersection with my own professional journey.

Rethinking what schools are for

I began my career as an educator during the Civil Rights Movement of the 1960s and 1970s in the U.S. It was an incredibly difficult, often contentious time for educators, but it was a time ripe with hope that we could achieve a system of education that served all our children well. Our illusions about systemic change that would follow from the Civil Rights Movement have been challenged every step along the way since. In the 1970s, studies applying methodology from the social sciences exposed our failure to appreciate how thoroughly a complex, stratified industrial society penetrates the school at every level (e.g. Sharp and Green 1975), the powerful interaction between race and class in academic tracking of students (e.g. Rist 1970) and ways in which schools are a form of social control. Researchers made the argument that schools serve to perpetuate the myth of access to equal opportunity in democratic societies (e.g. Young,

1971, Bowles and Gintis 1976). This analysis was extended to women and education of girls during the 1970s (e.g. Billington 1982).

I recall that as an elementary school teacher, I was appalled at the literature. How could I be contributing to denying equal opportunity to the students I so wanted to help? One of my assignments was in an urban school system in the Pacific Northwest that had a large Romanian population. We referred to them as gypsies and word in the school was that they steal everything that wasn't locked away. It was my first encounter with families whose goals for their children were so divergent from what mainstream families wanted. Communicating with parents as equals was a stretch for me with my university education. I had a lot to learn. I counted it as a good sign that nothing ever went missing from my classroom or purse. As I analyzed this and other experiences in the classroom in my graduate studies, I came to realize that the systems in which our individual classrooms and good intentions are encapsulated can deny the very intentions we hold out for young people.

In the 1980s and 1990s, post-structuralist and post-modernist ideas, drawing heavily on Foucault, have thought of schools as institutions of surveillance and explored how power and interest make their way into "discourses of pedagogy" in teacher preparation (Popkewitz 1985). Post-structuralist and post-modernist analyses of education have broadened the conversation about who's in and who's out from race and class to include gender (Weiner 1997, Pinar 1998) and ability (Linton 1988). While this work allows us to look at many facets of schooling and how schools fail to serve young people and their communities, it has not been as helpful with the deeper question of what schools are for and what we ought to be doing to prepare teachers and school administrators to address issues of equity and inclusion.

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[1] *Examples of scholarly work are offered where appropriate, but the essay does not include a comprehensive literature review.*

As I completed my graduate work and began college teaching, I wanted practical answers that would help aspiring teachers to equip children to seize the opportunities awaiting them. There were plenty of answers being offered, too: tighter standards, more regulation of school outcomes, answers that did not match the questions. Undeterred by thinkers at the university, policy makers and governments jumped to answer the question of what schools are for. Schools are delivery systems. Market-driven economies have seized on high-stakes testing and international benchmarks for measuring effectiveness of schools in producing a workforce to keep nations competitive in a global market. Ends are more important than means. In the past two decades, the curriculum of most countries looking for a place in the global economy has largely been taken over by what is necessary to pass benchmark tests. "With schools driven by targets, assignments and league tables, it is no wonder that pupils become bored and teachers experience 'burn out'," (Young, 2009, p.12).

Furthermore, critiques of the "school effectiveness" movement question its appropriateness in a democratic society (Wrigley 2003). Standardization of the curriculum may be less about equity of opportunity and student achievement than about who has the right to define what schools are for and who has a place at the table as discussions take place (Sleeter and Stillman 2005). Indeed, the endless search for best practice may have the effect of diverting attention from fundamental changes that need to be made and may contribute to diminishing rather than increasing access and equity (Rotberg, 2014).

Enter Covid 19. The pandemic laid bare issues of equity and access in education systems around the world, including "the misalignment between resources and needs" (Schleicher 2020). While universities were far more prepared than schools to move from in-person to on-line teaching, the spring semester of 2020 was exceptionally challenging to colleges and universities and underscored the importance of social interaction as a part of the college experience.

Elementary and secondary schools were unprepared. Those of us who have spent any time at all in schools with teachers know that a good teacher can often make a functionalist, test-driven curriculum palpable. Doing so online and with short notice, was nearly impossible. As schools scrambled to implement on-line learning, parents forced to work at home felt at sea as they juggled the multiple demands of their own jobs while keeping their children on task, leaving families stressed to the breaking point.

Yet the opportunities for on-line learning seem boundless. Helping children learn how to do research, to evaluate fact and falsification, to find and use resources from around the world are nearly unlimited, given a less constraining curriculum and goals for schools that are not solely defined by market-driven motivation.

Covid 19 exposed the limitations of a deficit curriculum based on a narrow vision of what schools are for, intensifying problems of access and equity. How do you make online learning available to homeless students, children of the poor, children in remote areas where reception is unreliable if it exists at all? How do you provide a safe space for children who are not safe at home and for whom school has been a sanctuary? How do you provide meals for children who have depended on the school to meet their nutritional needs? The disease has put a spotlight on our failure to provide safety nets of health care, education and quality of life for all children in the U.S. and, while I am speaking from a U.S. perspective, these are not issues limited to the U.S.

What are schools for?
If we ask the person on the street in almost any country what schools should be doing, they are likely to tell us that schools ought to equip young people to support themselves and live satisfying lives. They want schools to help people be good and do good. (Schoonmaker 2012). Or, like John Goodland, in his famous book, What Are Schools For? they might suggest that schools should develop the full potential of young people for the sake of the individual and of democracy. Schools and communities would do well to revisit the suggestions Goodlad made over 20 years ago. There are more recent calls for revisiting this question. For example, Michael Young whose early work was on developing a sociology of education, exploring the relationship between knowledge and social control, now urges that school knowledge focus on those things that we want young people to know that will equip them to be full participants in society, things they won't learn at school or in the marketplace. (Lambert & Roberts 2014). Education will have a deep and inclusive human meaning only when there is access to quality school

programs and equity in who is granted access.

Rethinking Cultural Myths

Dewey defined education as the continuous reconstruction of experience—elsewhere I talk about the levelling effect schools have on new teachers who set aside their ideals and fall in step with the practices of teachers around them (Schoonmaker 2002). I argue that for genuine, meaningful learning to take place, past experiences and assumptions have to be resurfaced and deconstructed in order to be critiqued and reconstructed. This includes the guiding cultural myths that undergird thinking about students, teaching and learning, as well as who and what schools are for.

There is little evidence of deconstruction of the myths informing our system of education at a policy level. Rist (2000) reflects in a thirty-year retrospective on his 1970 study of social class and expectations, that "there is scant evidence that the urban schools are any better prepared or positioned to address issues of class and color." And while textbooks have attempted to show much more cultural sensitivity, a great deal more needs to be done in helping young people understand cultural diversity from the perspective of those who have been excluded (LaGarrett 2017).

Creating a more just society starts with understanding where biases come from. Stereotypes about race, gender difference, ability and dis/ability affect our actions, often undermining what may be good intentions. These unconscious, or implicit biases are linked to cultural myths. Cultural myths serve as deep structures that inform—even unconsciously dictate—our response to others. They are formed through countless experiences at home and within our communities and countries and are key parts of our identity as family members, citizens in a community and national. Even though we are more aware of these internal structures than in past decades, for the most part, they go unexamined. Let me illustrate by examining one cultural myth in the U.S. that has contributed to our treatment of minorities.

Manifest Destiny: A Cultural Myth

New studies of the era of westward expansion in the US soundly critique the idea of Manifest Destiny that rationalized take-over of lands west of the Mississippi River in the 19th Century. Manifest Destiny assumed that the U.S. had the right and God-given responsibility to acquire all the land between the Atlantic and Pacific Oceans and to civilize the native people who occupied these lands. The cultural myth holds that white settlers won the west, those lands west of the Mississippi River that divides the nation into what is traditionally considered east and west. Buried within our cultural identity is the belief that white settlers tamed outlaws, Mexicans, and American Indians. The cultural myth is reinforced through the eyes of conquerors who wrote home on the journey west, published books, and did research on this era after the fact. It has been strengthened by countless western movies, television programs, and books. It is John Wayne, the actor, on the big screen, shooting it out with American Indians on the Western frontier. It is boys and girls playing cowboys and Indians. And it contributes to sustaining systemic racism in the U.S.

The historical reality is that migration west was much more diverse. Thankfully, young people are now introduced to new scholarships in schools, new books to read and new television programs and movies. But their attitudes about race are not wholly formed in school. Family, friends, outside school experiences, and community values reinforce cultural myths. While there is plenty of new material for young people, they have easy access to all kinds of rubbish on the internet. Furthermore, unless they have the opportunity to surface the cultural myth and critique it as it exists in their own predispositions, new information alone will not change their implicit attitudes. An example can be seen in looking at a classic book for American youngsters.

Contrasting fictional accounts of Westward Migration

In 1935, Laura Ingals Wilder published the first of a series of books based on her own experiences as a child of pioneer parents. The Little House on the Prairie has since sold over 60 million copies in over 100 countries. My mother read it to my brothers and me. We read through the whole Little House series and I re-read them many times. The book became a popular television series in 1974 that lasted nearly ten years. In the introduction to the book, we learn that Pa wants to go West:

In the long winter evenings he talked to Ma about the Western country. In the West the land was level, and there were no trees. The grass grew thick and high. There the wild animals wandered and fed as though they were in a pasture that stretched much farther than a man could see, and there were no people. Only Indians lived there" (Wilder 1935, p.2).

In 1952, a reader wrote to the publisher, objecting to the offensive implication that Native Americans are not people. The editor wrote back, startled that for 20 years nobody had noticed the statement. It was changed, with Wilder's approval—she was apparently horrified by the implication. It now reads "there were no settlers," (Flynn 2018). In 1954 the American Library Association (ALA) awarded its first lifetime achievement award in children's literature to Laura Ingals Wilder, naming the award in her honor. Then in 2018, 64 years later, the ALA stripped her name from the award on grounds that her books portray negative attitudes toward American Indians and people of color.[2] The association argued that this action on its part should not be seen as censorship or to deride the importance of Wilder's books, but to urge that they be read with cultural sensitivity and appropriate critique.

In the books, Pa's attitude toward Indians is not hostile, but it reflects the idea of Manifest Destiny: 'When white settlers come into a country, the Indians have to move on. The government is going to move these Indians farther west, any time now. That's why we're here, Laura. White people are going to settle all this country, and we get the best land because we get here first and take our pick. Now do you understand?' 'Yes, Pa,' Laura said, 'But. Pa, I thought this was Indian Territory. Won't it make the Indians mad to have to---' 'No more questions, Laura,' Pa said, firmly. 'Go to sleep.' (Wilder, 1971, p.236-37).

Pa perpetuates the idea that the western frontier was to be conquered by people like him. Ma is much more racist than Pa. When Laura says she wants to see an Indian baby, Ma wonders why she'd want to see an Indian. Laura wants to know why Ma doesn't like Indians. Ma's reply is that she just doesn't like them. Ma's interaction with American Indians throughout the book suggests her belief that they are untamed savages to be feared.

In response to withdrawal of the Wilder name from ALA's award, Wilder's biographer wrote, "While the answer to racism is not to impose purity retroactively or to disappear titles from shelves, no 8-year-old Dakota [Indian] child should have to listen to an uncritical reading of "Little House on the Prairie." But no white American should be able to avoid the history it has to tell," (Frasier, 2018).

The broad reach of Wilder's series suggests that without critical reading of the books, they will continue to reinforce cultural myths. That good books are critical in formation and broadening of young people and children's world views and contributing to social justice aims is well established in the scholarly literature (e.g. Enriquez et al. 2017).

A few years before the ALA made its historic decision, I set out to tell a story that turned into a trilogy for older children and youth[3]. The first book is about a girl whose family sets out for California on the Santa Fe Trail in 1856 during what we now call the Great Westward Migration. One of the early decisions I had to make was about voice. There is emergent literature for children and young people, written by people from diverse backgrounds and an appeal for more diverse characters. I wondered if the protagonist in my book should be a person of color to underscore the notion that the Great Westward Migration was far more diverse than the cultural myth suggests. I decided that my role as a white woman writing the story was not to be somebody other than who I am, but to create space within the story for characters to listen to the voices of diversity. I wanted to tell the story with reference to the history as we understand it today, not as guided by Manifest Destiny and cultural myth. As a consequence, voices of diversity in the book are filtered through the eyes and ears of a young white girl, Grace, who like Laura in The Little House on the Prairie, questions things.

For example, when the wagon train sets out, the wagon master, Mr. Stokes says, "I try to tell folk from the get-go…wagon trains are more at risk from disease than from Indian attack. People waste their time worrying about Indians. They should be worrying about things like smallpox and cholera. That's the honest truth of it" (Schoonmaker 2018, p.21). When it comes time to elect a wagon captain, Grace's father nominates Mr. Payne, who is not chosen. Some people don't think it's right to vote for a free black man. Grace wonders why. Her father tells her that some things are hard to understand and he hopes it will be better in California. It is Mr. Payne who teaches Grace life skills that later save her life.

When I began, I had some notion of the new scholarship about this era. But as I dug deeper into

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the new research, I confronted multiple ways in which my own attitudes about race have been formed. It was one of the most challenging research projects I have undertaken and, in some ways, one of the most emotional. Through the eyes of a little girl going west, I was looking at my history, the mistakes of people like me, and injustices that were reinforced and continue today in the ugly legacy of racism and exclusion.

The second book in my trilogy is set at the cusp of the U.S. entering World War I. The protagonist, James, is adopted by a German-American pacifist family. In this case, I had some family stories to draw upon, highlighting the way German-American immigrants and second generation German-Americans were treated. I learned that the model for internment camps that were used to hold Japanese citizens during World War II was established during World War I.

In the story, James and his family have to go to the County Seat town and swear their loyalty to the U.S. government. "Once inside, everybody had to say the pledge to the flag and sing The Star Spangled Banner together. People checked to see that they knew the words, too. 'You there, what's that you're mublin'?' one of the interrogators asked, pointing to a frightened woman just behind James. 'Step out here. Let's hear you sing The Star Spangled Banner nice and clear.'" In another instance, Mama reports on an article in the newspaper. It warned that anybody born in Germany or Austria should be considered a spy unless there was proof that they weren't.

Again, I confronted a legacy of racism and exclusion, this time against the immigrant "other." Not surprising, nevertheless astonishing in a nation of immigrants. Perhaps the embedded myth of "immigrants threatening our nation" goes a long way to explain the erosion of "the US tradition as a haven for immigrants and its traditional role in the international community as a beacon of freedom, liberty, and justice," (Schmidt 2019). The lingering legacy of Manifest Destiny suggests that once the lands were conquered and subdued, there was no more room.

In the third book of the trilogy, four children are traveling to California by train after the U.S. entered World War II. They are in the care of a black porter, but they don't understand why people keep calling him George when they know it isn't his name.

Another passenger explains that "'George' is a very rude way of addressing a porter. It goes all the way back to slave days when slaves were called by their master's name. The man who built the first sleeper car was named George Pullman. So there are rude people who want to call Pullman car porters George, as if they didn't have a name of their own. There's no excuse for it," (Schoonmaker 2019, 72-73).

These passages, and others, help carry the story line through all three books, but they do more. They help get the history right, reflecting on persistent issues and problems in society, and contributing to implicit images that are counter to negative cultural myths.

One of the specific things that educators in schools and teacher educators at colleges and universities can do, is work for libraries in schools with books reflecting inclusive voices and contexts based on new scholarship. But even this is insufficient in changing attitudes.

Rethinking Personal Knowledge
Just as we ask prospective teachers to reflect on their own assumptions about schools, students, teaching and learning, so we must also ask them to reflect on their implicit assumptions about the challenging issues associated with access and equity. Assignments that ask them to write a brief paper on their recollection of school experiences in childhood or compare themselves to a child they are working with in their field work or student teaching experiences invite reflection and help surface personal knowledge. Personal knowledge, including cultural myths, can then be critiqued and the long process of reconstruction begun.

We will start from a stronger position if we have our own personal knowledge and cultural myths. What are our assumptions about other? What experiences have we had with people of other races, cultures, religions—groups within religions? What are our biases? This can be painful work. I would like to think of myself as anti-racist, but I realize that my history works against me. As a girl growing up in a segregated school, I learned that the American Civil War was the War Between the States and had to do with state's rights, not with an economy built on slavery. I had little exposure to Native Americans even though Oklahoma means Land of the Red Man, and none to people of gender difference or people with physical or mental dis/ability. I knew nothing about the Tulsa

Race Massacre of 1921, when white rioters looted and burned one of the most affluent African American neighborhoods in the nation, leaving 800 injured and as many as 300 dead. Yet it happened little more than 200 miles away.

So, while I like to think of myself as open and supportive of issues related to social justice, I have a great deal of implicit learning to overcome. Doing the in-depth research for my trilogy offered me another opportunity to confront my personal knowledge. Seeing myself as part of a racist legacy has not been comfortable. Exclusionary thinking at a very deep level is almost unavoidable in a society where racism is built into our national psyche and has been from the foundation of the nation. Cornel West (1993) has pointed out that blacks and whites alike need to understand that racism and race are woven in American history and can never be eradicated without understanding that "race matters" in everything we consider "American."

One of the hopeful signs in the U.S. since Covid 19 and the race riots around police brutality has been hundreds of on-line study groups that have emerged within religious communities and civic organizations. People are reading books on anti-racism and talking about their own struggles to overcome institutional racism. Changing national attitudes in a country as large as the U.S. is a formidable task, but one to which teacher educators can make a valuable contribution, starting with their own implicit complicity.

In a country like Pakistan with a state religion, the challenge to educators may not be race so much as religious difference. What are the implicit assumptions regarding minority religions and about people who are Suni or Shia, for example, that contribute to exclusion and unequal opportunity? I have worked with many Pakistani university educators and appreciate their inclusive perspectives.

Built into every country's cultural myths are assumptions about others that guide immediate reactions to other people and contribute to national policy.

My initial impression of inclusiveness of Pakistani scholars was shattered on one trip to Islamabad when a bright young Pakistani woman with welcoming and expansive views explained the people sweeping the streets to me. "Street sweepers? Oh, those are the Christians." My inner reaction was, "Oh, is that all Christians are capable of doing?" She had not examined her inner prejudice and her low expectations, personal knowledge that informs her reactions to people of minority religions. The implicit views that spontaneously surfaced in her description of street sweepers are completely contradictory to her professed and desired views as an educator. How might her personal knowledge translate to her expectations for Christian or Hindu, Buddhist or Zoroaster students? How might they translate to Suni or Shia students? You may not need to write a trilogy for children to confront your own racism, but then again, you might. And don't misunderstand me, my own work on self isn't done with the writing of a trilogy. This is life-long work.

Conclusion

I have talked about rethinking access and equity in education through considering what schools are for, cultural myths that guide school and national policy, and our own personal knowledge. I have done so through briefly drawing on my own journey as an educator and writer.

Covid 19 has been one of the most challenging events of history, one with world-wide consequences and implications. And yet, this moment in history presents an important opportunity to face up to our failures and set ourselves on a corrective course toward a society that is more just, more caring, and more supportive of people with different ethnic, religious, economic, and cultural backgrounds as well as people with physical and mental differences. As we have been reminded repeatedly through the media, by politicians, health care workers, and friends on social media, "We're all in this together."

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ESSAYS BY PLENARY SPEAKERS

THE IMPACTS OF THE COVID-19 PANDEMIC ON EDUCATIONAL EQUITY AROUND THE WORLD: MAPPING THE IMMEDIATE AND LONGER-TERM IMPLICATIONS

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Abstract

The COVID-19 pandemic has created the largest and longest global disruption of school-based education in modern history. Almost every country in the world has experienced school closures, affecting well over a billion children. While closing schools to mitigate transmission risks and help ensure public health and safety has widely been seen as a necessary policy response, research to date indicates that school closures have disproportionately affected already vulnerable populations and have compounded and exacerbated gaps in educational equity based on gender, race/ethnicity, socio-economic status, disabilities, and geographic location. In this paper, I first share findings from an international and comparative review of data and analysis generated since February 2020, to map some of the most troubling and immediate impacts of the COVID-19 pandemic on education access and equity. In the second part of the presentation, some of the longer-term implications of the pandemic's negative effects on education access and equity will be discussed, including possible policy responses and innovations.

Introduction

My starting point for this paper is recognizing that the COVID-19 pandemic has led to the largest and most sustained disruption of education systems around the world in modern history. Yet, while all learners have been disadvantaged by this disruption, it is essential that we acknowledge that some learners have been more disadvantaged than others. Thus, with the purpose of mapping the pandemic's education equity effects and implications globally, I have reviewed and synthesized the relevant scholarly and gray literatures, dating back to February 2020, and share

in this paper the key highlights from this work. I also draw on the findings from a recent UNESCO-sponsored study I worked on, that focused on teacher leadership and innovation in developing crisis education responses in the context of the COVID-19 pandemic in Africa and Latin America (Mundy, Manion, Proulx, & Feitosa de Britto, 2020). In terms of the structure of the paper, I begin by contextualizing the nature and scale of education disruption as a way to set the stage for a discussion of key education equity issues identified in the literature. I then discuss the path forward, looking at equity considerations in crisis education responses.

Contextualizing the Problem

As COVID-19 spread around the world, countries responded in different ways. Some immediately implemented full and sustained "lock-downs", while others did not . Few, if any countries in the world were adequately prepared to effectively respond to the pandemic (García & Weiss, E, 2020). Nonetheless, by April 2020, over 90% of education systems were closed, including K-12 and higher education institutions, and affecting approximately 1.6 billion learners around the world . The already observed and predicted effects are wide-ranging and stand to impact, at a minimum, the development and well-being of an entire generation. Even if we look at the literature on women who are pregnant during this pandemic, they are several times more likely to experience anxiety and depression and the research also indicates that there is a relationship between women experiencing anxiety and depression while pregnant and their children developing anxiety, depression and other mental health issues later on. This is merely one example; however, it underscores the importance of acknowledging and anticipating

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[4] *For example, in Malawi, the government called for a national lockdown, but it was contested in the courts and ultimately, while schools shut down, there was not a countrywide lockdown.*
[5] *https://en.unesco.org/covid19/educationresponse*

the effects of the pandemic in the long term, for example, if school systems are having to deal with greater numbers of children with mental health and behavioral issues and challenges.

The loss of learning time and risks to young people's psycho-social development and well-being are the two most frequently discussed topics in the literature (see for example, Baloran, 2020; Chen, Chen, Pakpour, Griffiths, & Lin, 2020; García & Weiss, 2020; Kuhfeld, Soland, Tarasawa, Johnson, Ruzek & Liu, 2020). Additionally, safety risks have escalated, particularly with school closures when children are spending more time at home, and if their homes and their families don't offer a safe space for them, children will be at a higher risk of experiencing (and/or witnessing) violence and neglect etc. (Baron, Goldstein, Wallace, 2020). There are also, of course, longer term implications for economic and social development.

Across the globe, we have seen in many countries a re energization of distance learning modalities, including TV and radio (Mundy et al., 2020). We have also seen widespread attempts to pivot to digital learning; however, there is a split between low- and middle-income countries and high-income countries in this regard (Desire2Learn, 2020). It is important to recognize the differences between countries, but also differences within countries in terms of who and where people and systems have been able to pivot successfully to distance and/or digital learning. For, example, we see in low- and middle-income countries differences between private schools and public schools where the former have been able to more

successfully pivot to digital learning than the latter.

Despite facing considerable challenges, in my research on teacher leadership in the context of crisis education responses, we heard of many innovative ways that teachers have been able to connect with their students, to help support continuity of learning, but also just to help by providing psychosocial support, to just check in to let learners and their families know that they care, and also to keep reminding them that they need to keep up with their studies (Mundy et al., 2020). In low- and middle-income countries where digital learning skills, capacities, and infrastructure are weak, we saw teachers innovate and reach out through SMS and WhatsApp (among others). But even then, these efforts were not reaching all students (Mundy et al., 2020; Tienken, 2020).

Initial crisis education responses focused on responding to different needs, including academic and non-academic needs. Although a fairly uneven phenomenon, I would like to highlight that we do have evidence of an increase of social dialogue in the context of the pandemic, for example between governments, which tend in most countries in the world to be the major funders and governors of national education systems, and teachers and their associations (Mundy et al., 2020, see also ILO, 2020; Ratnam & Tomoda, 2005). The focus of social dialogue in this context primarily concerned how to safely reopen education systems, ensure continuity of learning, and support the psycho-social and emotional wellbeing of learners and other education stakeholders (see ILO, n.d., 2011, 2020).

Box 1: Access to Distance Learning Modalities

• While more than 90 per cent of the countries adopted digital and/or broadcast remote learning policies, only 60 per cent did so for pre-primary education.
• Policy measures taken by the governments to ensure learning continuity through broadcast or digital media allowed for potentially reaching 69 per cent of schoolchildren (at maximum) in pre-primary to secondary education globally.
• 31 per cent of schoolchildren worldwide (463 million) cannot be reached by the broadcast- and Internet-based remote learning policies either due to the lack of necessary technological assets at home, or because they were not targeted by the adopted policies.
• Online platforms were the most used means by the governments to deliver education while schools remain closed, with 83 per cent of countries using this method. However, this allowed for potentially reaching only about a quarter of schoolchildren worldwide.
• Television had the potential to reach the most students (62 per cent) globally.
• Only 16 per cent of schoolchildren could be reached by radio-based learning worldwide.

Source: UNICEF, 2020: https://data.unicef.org/topic/education/covid-19/

Drivers of Educational Inequities in the Context of the COVID-19 Pandemic

Let us unpack some of the drivers of inequity in education (and beyond). And, before proceeding, I want to highlight that I conceptualize these as being intersecting drivers of inequality (Crenshaw, 1989). Using an intersectional lens means that we do not privilege or single out any one social position or social location when we try to assess and understand inequity. That is, we have to understand that there are different components and layers of our social locations and identities and that these intersect and overlap with each other and influence effects, depending on context. For example, when advocating for gender equality, we must ask "which girls?' and 'which boys' need targeted support, because it is not that all girls everywhere and always are disadvantaged and that all boys everywhere and always are advantaged relative to girls – it's not that simple. An urban-based, relatively affluent girl will have a greater advantage educationally, for example, than a boy who comes from a poor family and lives in a rural/remote area. I also want to emphasize that these drivers of inequality that I am discussing, they are not specific to and did not emerge in the context of the pandemic: they were "pre-existing conditions", that the pandemic has shone a light on and amplified.

One driver of inequity is geographic location. Depending upon where you are in the world, you will have different educational opportunities and experiences. For example, rural and remote populations tend to be disadvantaged relative to those in urban or peri-urban areas (Morgan, 2020). Being poor, for example, in a rural area is often described as more difficult because of the lack of access to public services, including education; whereas being poor in an urban area has been suggested as oftentimes a little easier because you have more access to more people, and more potential resources.

In addition to where we are in the world, socio-economic status (SES) is a widely recognized and studied driver of inequality. Greater affluence generally means the availability of more resources to invest in children's education. Greater family affluence is also generally associated with higher educational attainment, and more affluent families tend to have greater access to information to make decisions about their children's education.

Socioeconomic status matters in terms of access to digital technologies, having the gadgets, the phones, the tablets, the laptops, the computers, radio and TV (Desire2Learn, 2020; Morgan, 2020). Considering SES with geographic location, a family living in a remote, rural area may have a TV and may have a radio, but because of the location of broadcasting towers and consequent signal strength, learners in that family may still not be able to access the distance learning programs. Again, this is an example of intersectional analysis and intersectionality. A learner may have a tablet, may have a smartphone, but lack reliable access to electricity to power their gadgets, and this also applies to TV and radio. Similarly, lack of reliable access to the Internet and/or ability to buy data, also limits the ability of learners to access digital learning programs. This is also leaving aside the question of learners having the understanding, skills and capacities for effectively using digital technologies for learning purposes – an issue that I will discuss shortly.

Often linked with SES is the issue of time available to parents and learners. A prominent theme in my research concerned parents keeping their children busy with non-school related activities, often out of necessity to help contribute to the family and meeting basic needs. Thus, rates of child labour have increased, particularly in poor families, as a result of the COVID-19 pandemic (Lancker & Parolin, 2020). In low SES contexts, parents and caregivers often do not have sufficient time to devote to engaging with and supporting their children's learning.

Gender is a further driver of inequity in education, as has been widely documented for decades (see for example, Connell, 2010; GPE, 2020; Tembon & Fort, 2013; Wodon, Montenegro, Nguyen, & Onagoruwa, 2018). In many countries, girls are disadvantaged relative to boys in terms of access, retention, the nature and quality of teaching/learning experience, and educational outcomes (Baily & Holmarsdottir, 2015). Given the importance of digital learning in the context of school closures, it is important to highlight that there is a gendered digital divide. In a global survey, it was found that in low- and middle-income countries, boys are 1 1/2 times more likely to own a phone than girls, and boys are 1.8 times more likely to have smart phones with the ability to access the Internet[6].

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[6] *https://plan-international.org/education/bridging-the-digital-divide*

There is also an increased risk of gender-based violence, particularly during school closures. Again, because children are/were spending far more time at home, there is concern that some homes are not the safe spaces that we want them to be and what children need them to be. Young people are in these spaces during lockdowns, locked in and oftentimes isolated and cut off from potential support systems and people, including their teachers. Thus, there has been an increased risk for some children, and there is a gender dimension to these risks.

I also want to highlight that surging rates of early pregnancy and marriage in some country contexts have become a significant and growing concern in many parts of the world, particularly in sub-Saharan Africa. While we know that this is happening, we do not yet know the impact this will have on girls and young women returning to school to complete their studies. While there is a risk that we will see a significant drop-out of students as a result of the school disruptions and child poverty – Save the Children estimates 9.7 million children are at risk (Warren & Wagner, 2020), the risks are higher more when we are talking about young mothers and the fact that many countries do not have adequate or equitable school re-entry policies[7] (Zuilkowski, Henning, Zulu, Matafwali, 2019). There is a lot of work and advocacy going on in this area.

We also see different abilities and disabilities as drivers of inequality. The evidence suggests that learners with special needs have suffered disproportionately during the pandemic, including in low- middle- and high-income contexts (Masonbrink & Hurley, 2020; Toquero, 2020). During school closures, many learners with special needs (e.g., visual and/or hearing impairment, physical disabilities, autism, etc.) were marginalized by crisis education responses that did not include consideration of their different needs. There is also evidence to suggest that in the context of school re-openings, students with special needs have received inadequate attention and support (ibid).

Race and ethnicity are further drivers of inequity in education (and beyond). Research highlights the structural disadvantages experienced by racialized people and groups, to draw attention to the reality that depending upon your ethnic background, in some country contexts or regional contexts, this can negatively impact your ability to access educational opportunities and it can negatively affect your educational experiences (Bhopal, 2016). While race/ethnicity is a driver of inequity outside of the pandemic context, within the context of crisis responses, ethnicity can become a more or less salient factor in terms of the support and opportunities available to you. Related to race/ethnicity is the issue of language. Here the problem is that national distance/remote learning programming is largely delivered in one or possibly two dominant languages, thus preventing access to linguistic minority learners (Mundy et al., 2020).

"Build Back Better": Exploring Values and Strategies in Crisis Education Responses

Now, this concept 'build back better', I think you probably have all come across this at one time or another in the past few months. It seems to certainly be a galvanizing discourse and call to action. I see this 'build back better' call as reflecting recognition that the COVID19 pandemic is an opportunity to take on the challenges that existed before the pandemic and intentionally and meaningfully pursue the radical transformations required of education systems. In other words, COVID-19 is an opportunity to build back, not to where education systems were, but even better and I like to think that this build back better call to action is really also signaling the need and the desire to take inequality and inequity seriously. I want to repeat a point that I have already made, just because I feel that it is so critical to understand, and that concerns the need to recognize and face the challenges that existed before COVID-19 (see for example, García & Weiss, 2020).

I was thinking about what some of the constituent elements of a build back better agenda for education might be, and through my review of the literature, I have been able to distill some foundational pieces of this complex puzzle. First, building back better means protecting the right to quality education for all, thus connecting with Sustainable Development Goal 4. Second, it is about ensuring continuity of learning and mitigating the impacts of learning losses and gaps caused by school closures and shifts to distance and digital learning modalities. Third, building back better means ensuring the socio-emotional well-being of all, and it also means ensuring that all children, families and communities equitably benefit from and are supported by education policy and practice in this build back better era.

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[7] https://www.hrw.org/report/2018/06/14/leave-no-girl-behind-africa/discrimination-education-against-pregnant-girls-and

Now, let's discuss some of the goals and strategies that are featured in country-level crisis education responses. The literature is clear that the focus needs to be dual; we cannot elevate equity over quality, and we cannot elevate quality over equity. They need to be prioritized and pursued equally. There is not a trade-off here: it is not a zero-sum game in that gains made in terms of learning quality mean losses in terms of equity. Research shows that we can raise both of these dimensions of the educational experience at the same time.

There is a need for multi-prong, multisectoral and transformative approaches. Above, I talked about social dialogue and that we have seen an increase of such processes in many countries, with governments working with educators, teachers' associations, etc., trying to come together to plan safe school re-openings as well as strategize ways to ensure that learners can "catch up" or "make up" for learning time losses as a result of school closures. Issues of psycho-social development and emotional well-being have also been at the center of social dialogue processes in developing crisis education responses (see for example, Teacher Task Force, 2020; Sayed & Bulgrin, 2020; Symeonidis, 2015; UNESCO, 2018).

There is a need to ensure that adequate information, training, and PPE (personal protective equipment) is provided to schools for safe re-openings. It has been necessary to re-consider and somehow alter the organization of schools so that COVID-19 safety protocols can be effectively implemented. For example, large class sizes are a common challenge in many parts of the world, and large class sizes make it difficult to re-arrange physical spaces in accordance with physical distancing protocols.

There is a need for pedagogical and technological changes and also changes to physical and digital infrastructures. Pedagogically, a key concern focuses on different capacities for independent learning. There is evidence of generational gaps in terms of capacity and skills with using digital learning technologies, but also a lot of educators I have spoken with suggested that kids often have difficulty learning on their own because it is not a pedagogical approach that is centered in schools. Similarly, Just the same as many teachers are not trained in many countries (and not all of course), but because in many countries digital teaching and learning skills are not part of initial teacher education programs, teachers, have been really hit hard by this need to pivot to online or distance teaching modalities (Marshall, Shannon, & Love, 2020). But also, kids, because they are going through a system where there is a teacher that directs, tells students what to read, what to look for, and assesses knowledge acquired. Thus, many young people still do not know how or are not proficient at learning on their own, and this needs to be addressed.

I have found some evidence to suggest that teachers are recognizing this gap, learned through the experience of distance and digital learning during school closures, and have tried to adjust their pedagogical approaches to nurture self-directed learning skills amongst their students. For example, in the context of partial re-openings for students writing high stakes leaving exams (grade 9 and 12) in Ghana, teachers reported working with their colleagues to implement "flipped classrooms" – where students are responsible for covering material prior to the class where it is addressed by the teacher. Thus, pedagogical changes are needed and have been part of some efforts to "build back better". Lastly, but quite critically, technological changes are required in terms of investing in physical and digital infrastructures.

Another key idea that I wanted to highlight from my review concerns the need for meaningful and targeted support for parents and guardians[8]. In addition to home schooling and trying to support their children with learning, parents and guardians could be facing or have experienced job losses, or changes to their socioeconomic status. The pandemic has understandably sparked widespread fear, uncertainty, and ambiguity and this increases stress levels and can cause anxiety and depression, thus making it harder for parents to be the supports that they want to be and what their children need them to be. I have been heartened to see the level of discussion about providing meaningful and targeted support for parents and guardians in my research.

There is also, of course, the need to recognize and support teachers and school leaders. I think in all of this, so many people have realized that teachers are essential workers. They are front line workers. They have the know-how, they are problem solvers, particularly when they have a chance to

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collaborate and work together and learn together and implement together. In addition to providing spaces for such in-service teacher collaboration, professional learning and experimentation, there is a need to invest in and reform initial teacher training. Part of reforming initial teacher education will involve integrating content and providing experiential learning opportunities in the area of digital teaching and learning. Reforms to initial teacher education should also support the development of teachers' understanding and skills in implementing learner-centered pedagogy to build up students' independent learning capacities and confidence.

Concluding Remarks

The focus of this brief paper has been on highlighting the main equity issues and implications of the COVID-19 pandemic in the education sector. I have presented key findings from my global review of scholarly and gray literature on the topic, published since early in 2020. In my discussion and analysis, I have also drawn on UNESCO-sponsored research that I completed in July-September 2020, focused on teacher leadership and innovation in developing crisis education responses in Africa and Latin America (Mundy, Manion, Proulx and Feitosa de Britto, 2020).

My main argument has been that the COVID-19 pandemic has not so much caused inequities in education as it has amplified the effects of pre-existing drivers of inequity, in education and beyond. Thus, following a brief contextualization of crisis education responses, I center the discussion on several pre-existing drivers of inequity: geographic location, socio-economic status, gender, ethnicity/race, and different abilities/disabilities. In the last part of the paper, I present a brief overview of some of the foundational elements of a "build back better" agenda in a post-COVID-19 world, and as part of this discussion, I identify some key areas for policy and action to ensure access to quality, inclusive education for all.

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RESEARCH PAPERS FROM CONFERENCE PARTICIPANTS

DISTANCE LEARNING DURING COVID-19 FROM LEARNER'S PERSPECTIVE

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Abstract

The global pandemic introduced a new way of teaching and learning. Previously, the universities, colleges and schools in Pakistan used to follow and focus more on the traditional face-to-face method of teaching. Although some of the institutes were still offering short courses, such a need was never felt for distance or remote learning. However, Covid-19 introduced a new reality where education had to be imparted through distance learning and steps had to be taken on war-footing. This study aims to study the perspectives of undergraduate and postgraduate students enrolled in higher education institutes towards the transformation from physical education to educational technology classes in the wake of Covid-19. It is a qualitative case study where data was collected from 10 undergraduate and postgraduate students enrolled in a public sector university using purposive and convenience sampling. Data was collected using semi-structured interviews and analyzed for codes, categories and themes. The findings reported that students faced many economic, communication, technical and psychological issues. A large-scale study analyzing the perspectives of undergraduate and postgraduate students across different universities can be conducted in future to effectively identify the outcomes of digital education.

Keywords: Distance Learning, Online Teaching, Covid-19, Online Learners

1. Introduction

Covid-19 pandemic is described as a global health calamity of our time (WHO, 2020). The novel illness is one of the few infectious disease outbursts that have had a devastating impact on nearly every aspect of human life (Quraishi, Asif, Sheeraz, and Amer, 2020). The World Health Organization declared the epidemic as a worldwide public health emergency on 30th January 2020 (WHO, 2020). The initial two cases of Covid-19 virus in Pakistan were confirmed on 26th February 2020 by the Federal Health Ministry in Karachi and Islamabad. Later, due to an increase in the number of cases in the country, the relevant government authorities decided to close all educational institutions across the country (Qureshi et al, 2020). Further directives were issued to higher educational institutions to shift towards distance learning mode, to reschedule all types of ongoing examinations and to assist student learning through the online mode until the Covid-19 crisis ends (Khan, Niazi, & Saif, 2020).

Clearly, like many other facets of everyday life, the pandemic had a serious impact on the worldwide education system, affecting learners, instructors and educational institutions from all around the globe (Teräs, Suoranta, Teräs, & Curcher, 2020). Around 1.5 billion learners were deprived from traditional physical education in the world. Teachers have also been influenced by the global lockdown. The pandemic caused all types of educational institutions, primary, secondary, high schools, colleges and universities from across the world to shut down on an immediate basis and to shift towards the distance learning mode. This important decision was taken to adhere to the social distancing guidelines issued by the world health organization (WHO, 2020). Nevertheless, it is important to note that this rapid shift from the conventional learning mode to the new distance learning method brought with it various challenges and obstacles at this point (Teräs, Suoranta, Teräs, & Curcher, 2020). However, as nobody knows when the crisis will fully end, the only available option is to optimize the use of current technical resources to provide continuity of learning in higher education institutions in Pakistan, as elsewhere around the world.

It is important to consider that this is not the first time when the conventional education system came to a halt. The SARS Coronavirus had a negative impact on the traditional education system of a number of countries. Moreover, the HINI Flu outbreak in 2009 had an adverse impact on the education activities

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of several countries. Correspondingly, the Covid-19 epidemic has forced the academic experts from all around the world to reconsider the traditional face to face teaching methods (Jhaveri, 2020).

This mode of teaching was already being utilized to some extent in the global world where short courses and online webinars were already being conducted. Similarly, in Pakistan short courses were already being offered by Virtual University under the initiative of Govt. of Pakistan "Digi Skills" where the content was delivered using recorded lectures. The British Council, American English and Coursera have also introduced short certificate courses, MOOCs and E-teacher courses related to basic tools for teaching. However only a small number of the population comprising students, teachers and professionals took interest in such developments and got enrolled in these short-term certified courses.

Covid-19 totally transformed the traditional way of teaching and introduced a new way of teaching and learning through remote locations. As the teaching methodologies transform worldwide, teachers and students in Pakistan find it too difficult to adopt the new way of teaching and learning. In higher education institutions in Pakistan, emphasis is on lecture-based teacher-centered instruction. Also, the shortage of resources to quickly adopt the changing teaching practices from traditional to modern digital teaching proved difficult for most of the universities and teachers in particular as this mode of teaching-learning requires content, material and infrastructural support from the institutions.
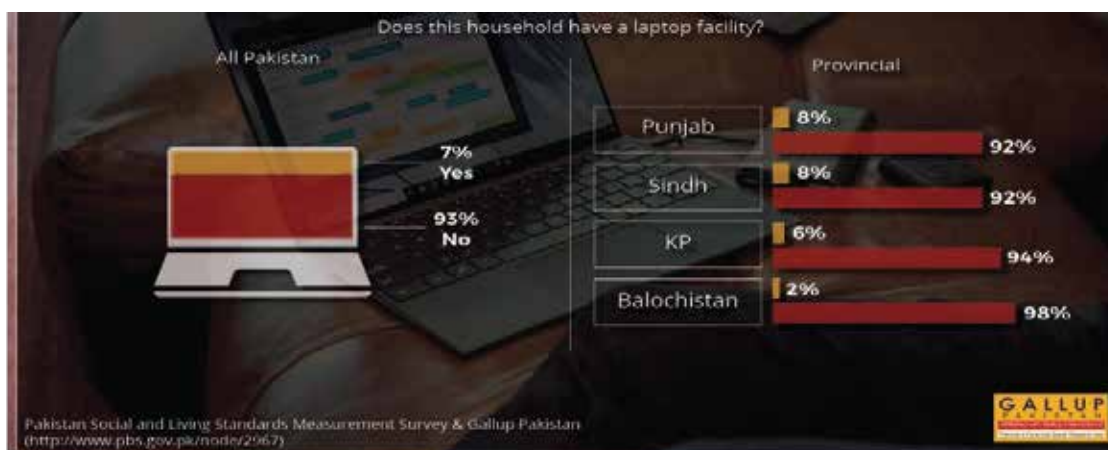
Although the online education system can be efficient in digitally advanced and developed states of the world, such as the US, UK and European countries, its ineffectiveness needs to be investigated in Pakistan. As stated earlier, online mode of education was introduced to minimize the academic loss of students staying at home during the time of pandemic (although it was not possible to implement it throughout the whole country such as rural areas as they do not have access to internet).

1.1 Issues of Technology in Pakistan

As Pakistan is a diverse and multiethnic country, students from different parts of Pakistan come to seek education from reputed public and private sector universities. The pandemic situation forced them to return to their homes in northern areas, underdeveloped areas in Balochistan, rural Sindh and southern part of Punjab. The students residing in the remote areas faced issues of secure, faster and reliable communication networks (Rasool, 2020). Though the scenario of cities is quite different- according to PTA (2020) we have "62 million broadband subscribers, yet many still do not have internet facilities available most of the time due to frequent power cuts for long hours" (Abbasi & Aftab, 2021, p.483).

Besides internet issues, the availability of technological equipment and resources is the second most important issue in Pakistan. According to Gallup Pakistan survey (2020) for assessing laptop ownership from 24,000 households with over 115,000 respondents across Pakistan along with various demographic breakdowns shows that only 7% Pakistani households own a laptop. In the province of Sindh, only 8% households own a laptop while the 92% population does not own it. (See Figure 1). This is the current situation of the population in urban areas; the conditions in the rural areas are more drastic where students normally do not own a computer or laptop and rely more on the computer labs in the universities.

Does this household have a laptop facility?

All Pakistan — 7% Yes / 93% No

Provincial:
- Punjab: 8% / 92%
- Sindh: 8% / 92%
- KP: 6% / 94%
- Balochistan: 2% / 98%

Pakistan Social and Living Standards Measurement Survey & Gallup Pakistan (http://www.pbs.gov.pk/node/2967)

Most of the student's do not have the basic facility of distance learning that is technological. Therefore, most of the teaching and learning appears to take place through mobile phones. According to PTA (2020), there are 152 million cellular users among which 59 million are subscribers of 3G/4G technology. Despite the fact that a major chunk of the population in Pakistan owns a mobile phone, many do not have smart or android phones with the latest technology and tools to readily participate in digital education.

Another major social and economic problem with regard to distance learning is power failure. Even in urban areas, we have 8 to ten hours of 'load-shedding'[12] while in the rural areas the time is double. Beside this core issue, teachers and students' lack of basic ICT skills appears to be a main hurdle in the success of distance learning and teaching.

1.2 Administrative and Educational Issue in Pakistan

Quraishi et al (2020) evaluated the impact of pandemic on the education sector by discussing the challenges and provided some recommendations for improvement. Figure 02 summarizes the administrative and academic issues faced by higher education, in particular keeping in view the situation of higher education institutes in Pakistan. However, it is important to note that the current circumstances are different from the normal digital learning programs, where all academic institutions of the country were forced to implement digital learning methodologies regardless of funds and limited resources.

However, this study aims to critically get in-depth information about the different problems learners faced in distance learning during Covid-19.
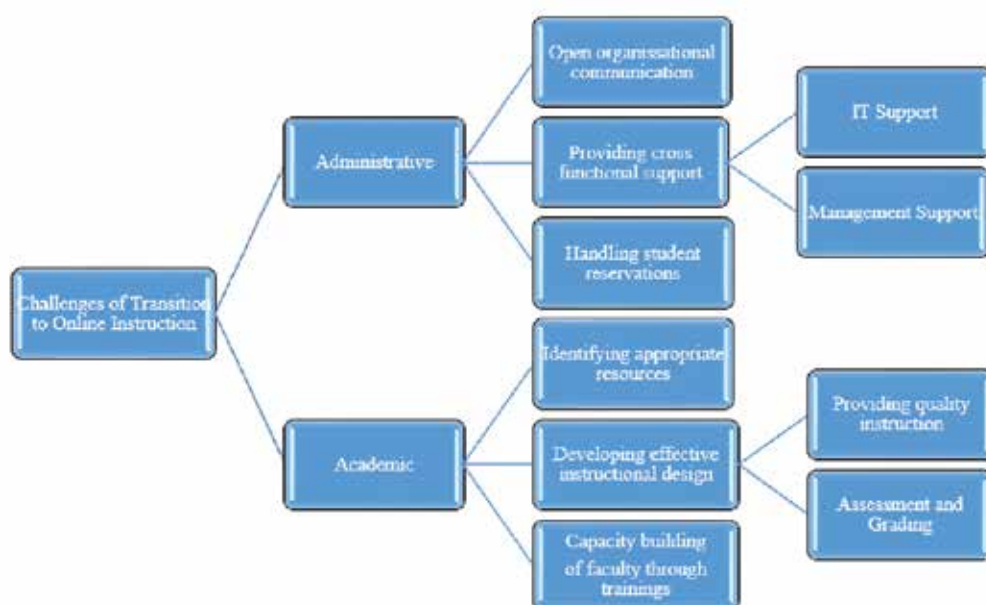
Figure SEQ Figure * ARABIC 2 Challenges of Online Education. Adopted from Quraishi, N. H., Asif, M., Sheeraz, M., & Amer, K. (2020).

2. Objective
To analyze the perspectives of undergraduate and postgraduate students enrolled in higher education institutes towards distance learning.

3. Research Question
What are the perspectives of undergraduate and postgraduate students enrolled in higher education institutes towards distance learning?

4. Literature Review
Previously before the pandemic hit the world, digital learning was just used for a few courses often with limited goals and objectives. Generally, the use of technology was only used to amplify the current methodology of learning. However, with Covid-19 distance or remote teaching and learning became mandatory for everyone.

Jeffery, Oberlander, MacDonald and Bhatti (2016) conducted a study to know about the technical issues within the education system of Pakistan in collaboration with British Council Pakistan. It highlights the digital divide in the country noting in

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[12] *Electricity failure or action to reduce load in some areas.*

particular the lack of availability of the internet facilities in all the cities of Pakistan. The report suggests a strategic vision on prioritizing resources to those provinces with the lowest rate of internet access. The document also visions for development of e-learning at every level with a high priority given to literacy programs. (Jeffery, Oberlander, MacDonald & Bhatti, 2016). Consequently, Shah (2017) explains the efficacy of distance learning in Pakistan claiming that E-learning has revolutionized the traditional method of learning. However, according to him, one of the major obstacles in this lack of infrastructural support and economic issues in transforming to digital education. (Shah, 2017).

Contrastively, Adnan and Anwar (2020) conducted a survey-based study from the perspective of higher education learners in Pakistan. The research focused on both undergraduate and postgraduate students to find their viewpoint on distance learning during Covid-19. While responding to the survey, most of the students reported that online learning was very different from the conventional learning mode, whereas few felt little difference between the traditional and online learning. However, some of the respondents reported that online learning was more motivating than the traditional classes. The research also highlighted some of the challenges faced by learners during online learning, such as lack of socialization with peer groups on campus, group study difficulties, and the response time of instructors. Hence, it can be concluded from the findings that distance learning cannot guarantee effective results in developing countries like Pakistan, where a large number of students have no or little access to fast and reliable internet connection (Adnan & Anwar, 2020). Similarly, Abbasi, Ayoob, Malik and Memon (2020) studied the perceptions of medical students regarding distance learning during Covid-19. The study was conducted using a descriptive cross-sectional method. A questionnaire was emailed to all participants for the research and reliability was determined. The total number of participants were 382 (245 female and 137 male). The results showed that 77% of the participants had a negative perception of distance learning. The study concluded that learners found online learning less appealing as compared to the traditional face to face mode, primarily due to its limitations with respect to the practical aspects that require a clinical or lab environment. Also, the study highlighted that while learners were not ready to adapt to this mode of learning in such a short span of time, they preferred online learning in the future

(Abbasi, Ayoob, Malik & Memon, 2020). These studies highlight some of the main issues in online classes; yet the focus is primarily on findings from quantitative data. The present study provides an insider's view regarding distance learning using a qualitative approach with semi-structured interviews.

Mukhtar, Javed, Aroog and Sethi (2020) explored the perceptions of both instructors and learners on the topic of distance learning in Pakistan during Covid-19 in a medical institute. The sampling method included the maximum variation method, where the study participants included 12 members of the faculty and 12 learners from the University College of Dentistry and University College of Medicine. The data was collected using focus group interviews, and analyzed through Atlas Ti. The findings reflected on both pros and cons of distance learning. The benefits included feasibility of attending lectures from the comfort of home, reduced use of resources and some other expenses. However, the disadvantages included the inability of teachers to carry out online activities. Similarly, lack of immediate feedback also hindered the learning process. Furthermore, both students and teachers suggested some recommendations to the management. This consisted of an increase in interactive activities and reduction in cognitive load. Another suggestion was to buy premium software that makes it easier for the faculty to detect cheating or plagiarism. This study relies on the economic management and curriculum problems in particular; however, there are several other issues that learners face in distance learning.

5. Methodology

The present study aims to investigate the perspectives and opinions of students regarding online teaching, therefore a qualitative case study was considered appropriate for the study. Qualitative case study aims to explore the perceptions of learners in detail (Creswell, 2014), therefore this method is appropriate for the present study as it aims to know the perceptions regarding distance education.

The target population for the study was undergraduate and postgraduate students enrolled in a public sector university in Karachi, a metropolitan city where students from diverse and far-off areas are enrolled. Using purposive and convenience sampling (Creswell, 2014), as the participants were in contact with the researcher as being part of the university. Hence the participants

voluntarily participated in the study after formal consent via email. Data was collected from 5 undergraduate (03 male and 02 female) and 5 postgraduate (04 female and one male) English students who were currently enrolled in the online semester. A sample size of 10 participants; 05 each from undergraduate and postgraduate was enough as it reached the saturation point and the researcher started receiving the same responses (Creswell, 2014). These participants were selected on a criteria that was being enrolled in the online semester, feasibility and having the basic facilities of internet in their home, mobile data package (Ufone, Zong & Jazz cellular companies) and computer. While 02 female postgraduate participants had their own laptop as well.

As face-to-face meeting was not a possibility during Covid-19 situation and lock-down, therefore, the data was collected using semi-structured interviews via phone call. The interview was recorded and transcribed. Before the interviews consent was taken from the participants and the participants were assured that the data will be used for research purposes only. The interview with each participant lasted for thirty minutes. Overall, the interviews took 05 hours in total to collect the data. Pseudo names were given to participants as part of research protocols. The transcribed data was analyzed, coded and categorized using thematic analysis and themes were generated.

6. Findings

Covid-19 revolutionized the teaching practices in Pakistan. Consequently, this study analyzed the perspectives of learners about distance education during the global pandemic.

6.1 Economic Benefits

One of the major advantages mentioned by the participants was the economic benefit of distance learning. However, at the same time some of the participants believed that if technical problems were resolved, distance learning "was much cheaper than face-to-face classes". While talking about the resources in online classes, it was felt that "easy access to classroom material, lectures, learning resources were easily available otherwise we had to spend a good amount of money in buying the notes and books". However, for the less-privileged learner "even the access to the classroom and materials due to technical problems was the biggest concern sometimes, which can be catered by notes and books in hand". However, some believed that "Online teaching is easier and

saves a lot of money of physical commuting and printing". Similarly, one other participant said that online classes made traveling easy as "it made it easier for students to study from anywhere in the world". Hence, keeping aside the technical issues, participants believed that economically in this situation "online classes were ideal".

6.2 Communicative Reasons

Communication which is the foremost principle of learning in the 21st century seemed less problematic for participants. As almost 55% of them believed that it improved the interpersonal skills of the learners while 45% considered distance learning as a barrier to interpersonal skills. One participant believed that online classes proved to be beneficial for "developing listening skills". In the same way, another participant said that "students who possessed introvert personality were benefited from the chat option available in meetings". Subsequently, another participant said that "some of the shy students got the opportunity to communicate in the live session who hardly speak in the physical classes".

However, some of the participants disagreed that online classes enhanced their confidence and provided them an opportunity to interact with students and teachers directly. As "lack of physical interactions restricted the communication and learning process". The same idea was shared by another respondent, "Online classes are less interactive, and it feels like you are talking to a blank screen in comparison to the physical class".

6.3 Use of Technology and Digital Tools

The participants narrated that technology and its usage was the potential problem that most of the learners faced in online classes. Initially, the teachers lacked the competency to operate the tools; however, with time and training, this barrier was not a hindrance any further.

Almost 70% of the respondents agreed that the major obstacle in online classes was the newly introduced digital platforms and applications. As one participant said, we faced "difficulty in comprehending the lectures because of internet and electricity issues sometimes". Similarly, "the noise in the recorded lectures distracted us from being focused and the content became difficult to comprehend". Contrastively, one respondent highlighted one major issue as the drawback of technology that "handwriting activity is almost

restricted".

Similarly, while commenting about the effectiveness of online classes one participant said that "online classes were known for few distant learning platforms but Covid-19 proved it to be the savior of education". As some of the participants disagreed with their other learners with respect to content delivery and reported that "presentations made learning easier for students to understand concepts and teachers to deliver lectures". In the same way another participant said that "I cannot only listen to the lecture once, but I can listen to it multiple times to clear my concepts".

Some of the respondents talked about the usage of different applications with regard to their effectiveness as one participant said "Online education became easier with the advent of application/software which were rarely used before and people would have doubted the purpose of their creation earlier". Also, one other participant said "Online classes gave us awareness about new applications". However, some of the participants felt that "Some of the students despite having all the gadgets were still not interested in taking online classes". As narrated by the participants "online classes were not interesting, and the teacher merely delivered the lecture". Similarly, one other participant remarked that "The lectures were boring and less-interactive and offered no practical learning."

The participants said that "Applications like Google classroom, Zoom, Google Meet, Microsoft Teams and other applications showed us the power of technology." As one respondent said that, "Our teacher used to make our classes effective by incorporating and making us learn a new online tool and we used padlet (online writing tool), Kahoot, Quizziz (online assessment tool) and wordwall (online discussion and speaking tool)" for interaction." In the same way other participants said that "We gave virtual presentations through flipgrid (an online video discussion forum) and the experience was amazing". However, some talked about its drawback as well "That we were unable to watch everyone's presentations which can in normal physical classes."

However, few participants disagreed as they believed teachers were unable to operate some of the applications and "Teachers took the technology for granted and merely delivered

lectures using reading method".

6.4 Attention and Motivation
While responding to the questions related to interest and motivation in online classes, participants said that it was "Difficult to maintain attention span and we had shorter attention span than in an on-site class." The participants attributed this reason to "lack of discussion and activities" which are common in in-person classes but are equally possible in online classes as well.

Some participants highlighted the positive techniques used by the teacher, "Taking 3 hours of class was hard sometimes to remain focused but my teacher used the technique of calling out names for answering questions during the lecture".

Some of the participants regarded distance learning as full of distractions as "When you are taking classes from home, there is a lot of distraction". One other participant regarded this issue with "lack of facilities was the major reason to lose interest in online classes". While some respondents talked about the usefulness of online classes saying that some "students lacked excitement and interest towards class participation". In contrast, another participant shared that online classes offered a "comfortable environment" and that "one could attend classes by freely roaming in the house as well". Similarly, another participant while talking about class participants for different age learners said that

"It was inconvenient for women to look after their home chores and take online classes while it's relatively easier for men. As far as young kids are concerned they have enough time to work on several activities. Like they would feel less lethargic and would serve that time in certain constructive work".

6.4.1 Health Problems
Though the attention and motivation can be triggered but the health issues cannot be resolved easily. Some of the respondents talked about the psychological impact and health issues they faced while taking online classes.

80% of the participants said that they faced a lot of health problems while taking online classes. As a participant remarked that "Due to excessive use of sitting in front of a computer/laptop screen, I faced health problems of stiff neck, headache, and

insomnia". Similarly, another participant said that the "Number of hours for online classes are too much while in physical classes we have the opportunity to be engaged in a number of activities." As we were "Concerned initially, that teacher will call our names and what if our internet stops working". In short, it seems that online classes were stressful for some learners.

6.5 Curriculum issues

Another important issue in the online classes was curriculum and its implementation. Though some creative teachers developed new content as per the requirements of the distance learning while others merely relied on the lecture approach which affected the attention and motivation of learners as content plays an important role in learning and online education. As one participant said "Theory subjects are easy to learn and discuss but those that involve research and practical work suffer, as they require interaction, collaboration, constant review and feedback". (M003). In the same way, another respondent said, "We were not able to understand the content because of the way it was delivered."

7. Discussion

The present study aims to explore the experience of undergraduate and postgraduate students regarding distance education. It denotes that technical and infrastructural problems, especially the availability of internet during the online classes is a major issue as Oberlander et al (2016) highlighted the lack of resources and internet issues across different regions as a major hurdle for distance learning. Furthermore, PTA (2020) also draws the attention of stakeholders that the majority of the mobile phone users do not have a proper android phone to use or overcome the technical glitches during the online lecture. However, this study reported that beside the internet, the newly introduced applications were also problematic.

The present study shows that participants believed that distance education reduced the economic expenses as it was cheaper and easy access to all the materials was available which saves a lot of educational expenses. In contrast, Shah (2017) and Mukhtar et al (2020) reported that the major obstacle is the economic support which is required in transforming the education system from face-to-face to online education. While Quershi et al (2020) emphasized upon the administrative issues as well.

The present study shows that the learners utilized some of the digital applications for learning and practicing the content which is not possible in traditional classes. The similar findings are concluded by Adnan and Anwar (2020) where they utilized student's point of view and statistical information in terms of students' response to online education who believed that online education is different from traditional teaching in terms of group-work and physical settings.

Distance education has its pros and cons. The present study presents a contrastive view as participants believed that comprehending the online lectures, lack of involvement, physical space and interactive activities were some of the vital problems. Though some of them believed it was comfortable as well, keeping in mind the pandemic circumstances. Also, one important aspect which this study highlighted was that the interpersonal communication skills improved during the online classes as it provided an opportunity to all the learners to share their opinion without being judged. In contrast, Mukhtar et al (2020) reported that online education is comfortable and can be conducted without any restriction to physical space with reduced resources.

While the drawback of distance education as reported includes teacher training and feedback which is required for motivation. The present study reported about the curriculum issues and teacher lack of technological training for using the applications and to operate the distance learning class was a major hurdle. Similarly Qureshi et al (2020) highlighted the academic issues that involved teachers to deliver quality teaching using the online resources and plan the curriculum keeping in mind the current needs of the learners. In the same way, this study introduced the health issues learners and teachers face while being enrolled in distance education classes through an online medium.

8. Conclusion and Recommendations

The findings suggest that learners have both positive and negative attitudes towards online learning. There are a number of reasons like communication, technological, psychological, economic reasons that facilitate and put a hindrance towards online learning, which needs to be resolved. Previously, the researchers merely focused on the negative outcomes of online education. However, the present study offers first-hand insights from the

participants who attributed distance learning as the "savior of education" along with the difficulties they faced in online classes. Similarly, this study is an eye-opener for the higher education institutes, administration and teachers to engage the learners in online courses and also provides alternate ways of accessing class lectures and material. In the same way, learners can be introduced to multiple forums as highlighted in the study to practice and revise the content using different online applications and platforms that do not consume a lot of internet. The Higher Education Commission should also equip the teachers with digital training, institutes to cater the needs of students from under-privileged areas and provide them sufficient resources on loans or scholarships or arrange a physical space in the nearby locality of their hometown which can cater the needs of learners at a large scale. Curriculum also needs to be revised to fit the needs of the learners. Small-projects must be initiated from universities to check the feasibility of digital education, since the pandemic has introduced the teachers and learners to a lot of resources and ease of education.

A large-scale survey can be conducted to inquire about the effective learning process in online classes as compared to in-person classes. Also, a digital curriculum must be developed to cater to the needs of learners in online classes. Similarly, another comparative study can be conducted to know the perspectives of students enrolled in online and physical classes across different universities, as different universities used different learning platforms for online education.

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SCHOOL TEACHERS AND PRINCIPALS' EXPERIENCES DURING COVID-19 IN PAKISTAN

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Abstract

As a result of the COVID-19 pandemic, educational activities were disrupted globally. In Pakistan, schools were also closed, and though some schools had started teaching online, the staff (including principals and teachers) and students' readiness for education during the pandemic remained unexplored. An internet-based survey was conducted to explore the experiences of the teachers and principals during the lockdown. The survey included both open-ended and closed-ended questions. Responses were collected from respondents in different parts of Pakistan, with the majority coming from Sindh and coming from both the private and public sector. While the respondents from private schools reported that they could teach online, the respondents from government schools could not continue the teaching process during the lockdown phase. School principals focused on acquiring technology for online teaching and offering skills development sessions. They used a variety of methods to monitor teaching and learning. Teachers relied on a mix of synchronous and asynchronous teaching. Infrastructure issues posed numerous challenges. Findings highlight an urgent need for teacher education programmes to incorporate digital literacy development and enhance pedagogical understanding of engaging students in online teaching environments and exploring solutions such as blended learning. The findings also draw our attention to questions of equitable access to quality education for all in Pakistan.

Keywords: Schools, Covid-19, Online Teaching, Teacher Education, Digital Divide, Pakistan

Introduction

On December 31, 2019, pneumonia of an unknown cause in Wuhan, China, was reported to the World Health Organization (WHO). In less than three months, on March 11, 2020, WHO declared COVID-19 a global pandemic. Following this, to reduce the spread of the virus, on-campus teaching was closed, which resulted in the disruption of educational activities globally, affecting more than one billion students in almost 172 countries worldwide (UNESCO, 2020). The schools' closure led to an instant and rapid transition, for many, from face-to-face to online teaching resulting in numerous challenges but also exploration opportunities.

COVID-19 pandemic and the havoc it inflicted, forced drastic changes on education systems globally. As in-person teaching-learning was not possible during the pandemic, many institutions either opted for online teaching or discontinued teaching-learning in the form of complete closure (World Bank, 2020). Consequently, educational systems globally reported excessive learning loss (Azevedo et al., 2020; Engzell, Frey, & Verhagen, 2020). These losses appeared relatively less for institutions that shifted to online modalities. On the flip side, institutions that remained disconnected from teaching-learning during the lockdown period have faced severe learning loss (Patrinos et al., 2022).

A noteworthy trend in the literature on online teaching during this period is the terminological diffusion in how it is referred. Various authors have referred to it as 'emergency remote teaching' (Bozkurt and Sharma 2020, i), "emergency eLearning" (Murphy, 2020, 492) or "quaranteaching" (Woods et al., 2020). This diffusion points to the unique nature of rapid online teaching. It is also worth noting that the shift from in-person teaching to online was not smooth. Several studies, mostly from developed contexts (e.g., Folkman et al., 2022; Carrillo & Flores, 2020; Van der Spoel et al., 2020), highlighted how teachers and students experienced multifarious challenges. Research studies (Carrillo & Flores, 2020; Flores & Swennen, 2020; Sepulveda-Escobar & Morrison, 2020; Mishra, Gupta & Shree, 2020) have also attempted to capture experiences of online teaching and learning in universities and schools and teacher education during the Covid-19 pandemic in different parts of the world to ensure the lessons inform future teaching and learning policy and practice. However, few studies have focused on

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principals' and teachers' experiences in response to the pandemic, particularly from developing contexts like Pakistan.

Teaching and Learning Dilemmas and Challenges in COVID -19 Crisis and Lessons Learnt

As COVID-19 spread around the world, countries rFor many, teaching and learning during the COVID-19 crisis have led to disorienting dilemmas and challenges. Balancing equity and access, working from home or at work, completing class hours vs quality online sessions of shorter duration, and face-to-face social interaction vs virtual social interaction has been a constant battle (Bakker & Wagner, 2020; Code, 2022). Other recurring challenges included: i) absence of or poor infrastructure for online teaching; ii) lack of relevant experiences of teachers; iii) teachers' and students' reluctance towards online teaching-learning; iv) ineffective mentoring and support system; v) lack of compatibility of existing teaching methods/course with online teaching (Adedoyin & Soykan, 2020; Al Salman et al., 2021; Carrillo & Flores, 2020; Faturoti, 2022; Huber & Helm, 2020; Mishra et al., 2021; Zhang et al., 2020).

Nevertheless, research indicates that these dilemmas and challenges offered practical solutions to stakeholders and created new learning opportunities. There are examples of successful curriculum transmission from Portuguese and Chilean contexts where they drew on strengths of personal teaching competence to re-shape the social interactions in online settings (Flores & Gago, 2020; Sepulveda-Escobar & Morrison, 2020). Reimers and Schleicher (2020) discuss OECD findings that the shift seemed to lead to students demonstrating greater autonomy and investment in managing their learning. Whitley et al. (2020) underline how the shift away from in-person teaching allowed learners who did not find school a pleasant nor a rewarding experience the opportunity to engage with learning in a safe environment. Day et al. (2020) and Van der Spoel et al. (2020) capture how the key stakeholders, teachers and students worked in tandem to overcome the challenges posed by the sudden shift in modality and their takeaway lessons for the post-pandemic classroom. Based on comparative lessons from Australia and Finland, Sahlberg (2021) argued that education systems built on trust-based professionalism are less reliant on externally measured standards and provide flexibility and autonomy to adapt the curriculum to local needs and strengths. These schools appeared to have fared better during the crisis.

Teaching and learning solutions that are inferred from this experience are many, including but not limited to: giving students an active role in learning-related choices; creating cooperative niches for participatory school policymaking; more relevant support in providing digital teaching materials, and promoting ICT competencies of both students and teachers, while considering hybrid models of schooling to maintain live interactions (Kovács Cerović et al., 2021). Some context-specific lessons (e.g., Yorke et al., 2021) shared the value of engaging at the community level through a cascade model of support where the local governments facilitated school principals, and in turn, the school principals were found more likely to provide support to teachers. Similarly, research indicates that both cognitive and affective presences are critical for productive online teaching-learning (Wut & Xu, 2021).

The COVID-19 Crisis and the Educational Emergency in Pakistan

The dilemmas and challenges confronting principals and teachers in Pakistan during the COVID-19 lockdown were no different. All the educational institutes, including schools, were closed for on-campus teaching by March 2020, and they were advised to use alternate means to ensure the continuation of learning. In a country where only 25% of the population was using the Internet in 2020 (World Bank, n.d.), the transition to online teaching was a challenge that only a few were able to outface. Some private and well-resourced schools successfully initiated a transition towards online teaching and learning. The government launched "Tele-school – a National TV Channel to disseminate SLO based educational content for Grade 1-12" (Ministry of Federal Education, 2020) and free download of android learning apps (Channa, 2021) for those for whom online learning was not a viable option due to a lack of digital connectivity and infrastructure. However, these initiatives by the government were not widely publicized, and therefore, many teachers remained unaware (Channa, 2021).

It should also be noted that even before Covid-19, the Pakistani education system was grappling with crippling deficiencies such as many children being out of school (AKU, 2022), and poor teacher education (USAID, 2010), outdated curriculum and rote learning (Bhutta & Rizvi, 2022). Hence, the added strain that the sudden closure of schools and transition to remote teaching due to COVID-19 created on an already frail and ailing education

system called for a systematic study to understand stakeholder experiences in Pakistan. Accordingly, the present study was conducted to explore principals' and teachers' experiences and needs during the initial lockdown period (i.e., March - July 2020) to utilize the results to propose necessary support. Though data were also collected from parents and students, in this paper, we focus on the experiences of teachers and school principals, addressing the following questions:

1. How have teachers and school principals adapted to life in the lockdown?

2. What are the support services needed by the principals and teachers?

While responding to these research questions, the paper concludes with a discussion on the needs and preparedness of schools and teacher education programs in Pakistan to provide quality education during uncertain times, and the implications for policy and practice related to teacher education and educational leadership programs.

Methodology

A cross-sectional online survey was carried out from 18 June 2020 to 7 July 2020. The questionnaire had both open and closed-ended questions, and it consisted of three sections (Table 1):

Table 1 Summary of the Survey Tool

Sections	Number of questions	Examples of items
Purpose of the study and participant consent and assent	-	-
Section 1: Demographic information and Access to technology (common for all)	10	Gender, Age, Location, Current role, Internet, and Device Access
Section 2: Open-ended questions to grasp respondents' experiences with online teaching and learning (different for each group)	08 Teachers 07 Parents 09 Students 07 School Heads/Principals	Level of teaching, Type of school, Issues faced during the lockdown, Support required from school and from IED

The survey was administered via SurveyMonkey. A link was emailed to teachers and principals through the Institute's Research and Policy Studies and Professional Development Centers. Further, the link was posted on the Institute's Facebook page. The respondents were limited to those who had access to the Internet and could communicate in English. Ethical approval was sought from the university's ethics review committee before administering the questionnaire.

The data was downloaded in a spreadsheet and imported into SPSS for descriptive analysis. 'Demographic Information' was analyzed and presented through descriptive statistics (i.e., frequency and percentage). Then, the current experiences and ICT access information of each stakeholder type were analyzed. Qualitative responses were coded, and a comprehensive

codebook was prepared. These codes were then collapsed into similar categories. Final themes were then identified after looking at convergence and divergence patterns in the quantitative and qualitative data analysis results (Miles, Huberman, & Saldaäna, 2019).

Findings
Demographics

A total of 220 responses were recorded out of which 20.5% were principals, and 79.5% were teachers. Though the respondents were from across Pakistan (i.e., Balochistan, KP, GB, Punjab, and Sindh) and represented public, private and community schools, the majority were from private schools (62%) located in Sindh (80%). Majority of the respondents were female (73%) and were between 30 and 40 years (72%). The details are provided in Table 2.

Table 2 Demographic data

Demographics		Frequency	Percentage
Current Role	School principal	45	20.5%
	Teacher	175	79.5%
Gender	Male	59	27%
	Female	161	73%
Age	Below 18	2	1%
	18 - 25 years	17	8%
	25 - 30 years	44	20%
	30 - 40 years	72	33%
	40 - 50 years	60	27%
	50 - 60 years	23	10%
	Above 60	2	1%
Type of school	Public	16	7%
	Private	136	62%
	CBS, Trust, NGO	17	8%
Region	Balochistan	5	2%
	CT	6	3%
	GB	6	3%
	KPK	4	2%
	Punjab	13	6%
	Sindh	176	80%

Access to and Use of Devices and Internet

The results presented in table 2 show that most of the respondents (91%) owned a device. Those who did not own a device shared it with their family members, such as siblings, spouse or parents. There were relatively more female respondents (n=16) who did not own a digital device than male (n=3). A majority had either a smartphone (87%) and/or a laptop (75%). Most of the teachers reported that they owned a laptop used during school closure for online teaching. Furthermore, a large majority (91%) of the respondents had access to the Internet. Most of the respondents had cable (39.5%) or cellular Internet (37.3%). During the lockdown, the principals and teachers used the devices and the Internet for more than four hours a day (76.4%). Most of them used it to 'work from home' (80.5%) or for 'online learning' (50.2%). The most preferred online teaching and professional development platforms were 'Zoom' (62%) and 'WhatsApp' (32.3%).

Table 3 Respondents' Access to Devices and Internet

Variables		Frequency	Percentage
Personal device	Yes	201	91%
	No	19	9%
Type of Devices	Smart Phone (iPhone/ Android)	192	87%
	iPad	10	4.50%
	Tablet (Android)	12	5%
	Laptop	165	75%
	Desktop Computer	20	9%

Variables		Frequency	Percentage
Type of internet connection	Broadband	64	29.1
	DSL	19	8.6
	Cable	87	39.5
	Fiber optic	28	12.7
	Cellular (3G/4G)	82	37.3
	Wireless device	8	3.6
Time Spent on Internet use	Less than 2 hours a day	7	3.2
	Between 2 to 4 hours a day	44	20
	More than 4 hours a day	168	76.4
Preferred learning online tools	Zoom	137	62.3
	Facebook	30	13.6
	WhatsApp	71	32.3
	MS Teams	10	4.5
	Google	30	13.6
	YouTube	1	0.5
	LMS	1	0.5
Purpose of ICT(s)' use in lockdown	Online learning from home	128	58.2
	Work from Home	177	80.5
	F&F	72	32.7
	Entertainment	71	32.3
	Shopping	25	11.4
	Social Net	73	33.2
Mobile Internet	No	10	4.5
	2G	6	2.7
	3G	19	8.6
	4G	133	60.5

Adapting to the life in lockdown: School Principals/ Head teachers' Experiences

This section presents data results on school principals' experiences.

Technology Selection and Planning

"As soon as schools were closed due to COVID-19, we prepared a plan [to continue the teaching and learning processes], provided training to our teachers and went for online delivery. Initially, we utilized 'Edmodo' and 'WhatsApp' followed by 'Zoom' for online interactive classes," (M_P_Pvt_Nawabshah).

The above quote encapsulates the experiences of principals, who rapidly adopted online teaching and learning during the pandemic. The process involved developing plans and selecting technology for online teaching. Some principals

mentioned that they had no prior experience of planning for online teaching. Therefore, the first task was to research what was available, then select and purchase technology. The cost of technology was a major consideration, and many principals relied on free tools. Only one principal mentioned "safe and secure online platform" (M_P_Pvt_Karachi) as a factor to consider when selecting tools. Zoom, google classroom, Facebook, and Edmodo, where mentioned by a majority of the principals.

Involving families

There was an increase in communication between schools and families. Both private and community school principals reported that since children were studying from home, they had to make an extra effort to involve parents in children's education. In the words of one principal, the most significant

adjustment was the "… inclusion of parents in their children's learning and promoting awareness among parents for using gadgets and to assist (sic) children to take online classes" (F_P_C_Karachi). Commonly used technologies for this purpose were WhatsApp and Facebook.

Online teaching approaches

Schools used a mix of synchronous and asynchronous online teaching approaches, and the decisions were made on the availability of technology and teaching methods. Both community and private schools made provisions for students who did not have reliable access to the Internet. For instance, a community school principal shared that they opted for synchronous teaching, but the lessons were recorded and shared with the students to watch the lesson later. A principal mentioned that they had developed "learning resource packs for students and delivered [them] at their doorstep," (M_P_Pvt_Karachi). Some principals relied on sharing recorded lessons via YouTube. Principals also encouraged teachers to supplement synchronous teaching with "interactive and interesting videos" (F_P_C_Karachi) to increase motivation and engagement.

Mental health

The principals noted that the challenges of balancing professional and personal responsibilities during the lockdown led to mental health issues. They offered support to teachers and students to manage stress. They mentioned providing counseling services to teachers and students, reducing workload by trimming syllabi and flexibility in scheduling. They also identified constant communication and addressing concerns as being helpful strategies.

Curriculum changes

A small number of principals reported making changes in the curriculum and assessment, for example, assessment criteria were revised to ensure students' presence in the online classes, and their study at home: "The virtual learning, assignments and attendance is given weightage in the final result therefore students have become more regular and serious in attending the classes" (F_P_Pvt_Karachi).

Provision of ICT Support

The analysis reveals that principals had prioritized two areas of support: i) digital gadgets; ii) ICTs' skills. In relation to digital gadgets, principals stated that they had "provided high-speed internet, touch screen laptops and computers to their teachers in order to proceed with online teaching" (M_P_Pvt_Karachi). They had organized ICT skills workshops for teachers, students and parents for online teaching and learning. One principal noted that they had "provided training to teachers on the use of zoom, google classroom, Gmail, LMS, Edmodo" (F_P_Pvt_Karachi). These sessions were extended to students "To enable them to use digital modalities i.e., zoom, email, and google classroom etc," (M_P_Pvt_Karachi) and to parents "In order to realize [sic] them the use of technology for learning continuation of their children" (F_P_C_Karachi). Also, IT support services were offered to teachers, students and parents "…to address any emerging problems related to these modalities" (F_P_Pvt_Lahore) and "to resolve their connectivity issues" (M_P_C_Khairpur).

Monitoring of Teaching and Learning Process Remotely

The principals appeared to see responsibility for ensuring the quality of teaching and students' learning, and monitoring of the teaching and learning process as an essential part of their job. During the lockdown, principals reportedly found creative ways to monitor the teaching and learning process. The following quote from a principal summarizes the strategies used to monitor the quality of teaching-learning:

"As principal, I ensure to have a joint as well as individual meeting with my teachers for a detailed discussion on syllabus coverage, strategies and issues they face while being online. I do attend sessions randomly to check the teaching and learning process, engagement and progression of students. I do take a [sic] regular feedback [from] parents for improvisation in the process." (M_P_Pvt_Nawabshah)

Several respondents relied on direct observation of online classes for monitoring. In the words of principals, they were "[conducting] virtual classroom observation by joining classroom as a silent observer" (F_P_Pvt_Hyderabad) or "Attending classes randomly, followed by giving feedback to the respective teacher" (M_P_Pvt_Nawabshah). Peer-feedback was used for monitoring: "… a separate Facebook group for teachers …, where [they] [uploaded] teachers' teaching videos and the colleagues [gave] feedback" (F_P_C_Karachi). Another principal noted that they had advised the teachers "… to record and share their lesson for analysis and feedback for improvement"

(M_P_Pvt_Karachi). Principals also mentioned that they had assigned the responsibility of monitoring to the academic coordinators or section heads, who ensured that "assignments are received and returned to students with feedback" (F_P_C_Karachi). Also, LMS reports were analyzed to monitor teaching activities and students' learning progress. A few principals reported that they had involved parents in the monitoring process by "taking regular feedback of parents regarding their children['s] learning and [bringing] improvement accordingly" (F_P_Pvt_Lahore). For this purpose, phone calls, WhatsApp, parent-teacher meetings, and informal discussions were used. It is evident from the responses that principals were deeply concerned about the quality of teaching and learning during the pandemic.

Adapting to life during the lockdown: Teachers' Experiences

In this section, the experiences of teachers are analyzed and interpreted to answer the research question.

Learning to Teach Online

Most of the teachers highlighted adaptation to remote teaching-learning as a shift that was not smooth. Though it became better over time, face-to-face teaching remained the preferred mode. In the words of a teacher: "Initially we faced problems because students and teachers both have difficulty in adapting to new work situations. later it mellow [sic] down. [sic] but still face to face learning is more convenient and recommended" (F_T_Pvt_Islamabad).

The initial fear and difficulty were present because the online teaching was new and/or teachers did not have the required skills. Teachers reported that they had received training to use technologies which helped them enhance their technical skills, such as making screencasts and video-recording the lesson. However, none of the teachers mentioned receiving training to improve pedagogical skills. For some teachers, the shift to online teaching gave a sense of achievement, "Alhamdulillah [Praise be to the Almighty], in last 3-4 months, the online applications being used have developed my expertise in virtual classes but still I can further improve like the use of more software to manage many things during class at one time" (M_T_Pvt_Karachi). Teachers also noted changes in their role and the ensuing shift in teacher-learner role allocations and power dynamics: "Now it's really amazing experience to see kids involve (sic) in

teaching. The role of the teacher is now indeed facilitator only" (F_T_Pvt_Karachi), which also appeared to be a factor in this acclimatization process.

Online teaching approaches

The majority of teachers used a combination of synchronous and asynchronous modes depending on the subject being taught and the realities of the situation. They used asynchronous teaching methods to help students with limited Internet bandwidth because it was more convenient for students to watch the lesson on their own time. In the words of teachers:

● "I teach English, Math and Science. We are [sic] using a blending strategy like preparing videos on the topic as well [as] online teaching on Google classroom" (F_T_Pvt_Karachi).

● "I am making offline lessons videos for cable transmission plus study packs in hard [copy] for my students since April. The video lesson is a complete set that has objectives for formative assessment and homework" (M_T_Pvt_Chitral).

● "I have to display a video instead of a live demonstration" (F_T_Pvt_Karachi).

Challenges of Pedagogy, Access and Well-being

Teachers reported challenges related to online class management, responding to individual learning needs, online course design, teaching skills, parents' ICT literacy and students' engagement. Teachers reported infrastructure challenges such as the power supply, connectivity, Internet speed and availability of devices. The situation was worse for public schools and those in remote locations as they had no internet connection or devices. The shift to online teaching significantly increased teachers' workload. Schools also reduced teachers' salaries, contributing to mental health issues, as a private school teacher mentioned. Family responsibilities were increased during the lockdown due to extended household activities. Working in such circumstances created well-being and mental health issues for many teachers. Some of the responses are as follows:

● "I was facing the problem of weak students skipping the lectures & especially (sic) they didn't attempt their test honestly" (F_T_Pvt_Karachi).

● "I teach English and other subjects but, its very difficult to me that how am I teach online because I have no any experience or training [for] that" (M_T_Pub_Khairpur).

● "… sometimes teacher is not able to make the appropriate selection and use of modalities that can help in effective delivery of content"

(F_T_Pvt_Rawalpindi).

● "Teachers are getting exhausted day by day because of the screen time. Parents are somehow appreciative but few are frustrated as well. Power failure in most of the areas and most time of the day is spent without light. One gadget and more siblings, Etc" (F_T_Pvt_Karachi).

● "…this virtual connection has created more pressure and burden on my side as I am working 12 to 14 hours a day to prepare for my lessons and tasks in such a way that can motivate kids to come to the classroom." (F_T_C_Karachi).

Support required by principals and teachers

The data shows that principals and teachers need support to improve digital literacy, online teaching and educational management skills and ensure mental health and well-being.

The school principals identified professional development in school management and monitoring of learning, during and after the pandemic, as areas of need. They also stressed their need for support in improving online communication skills with various stakeholders (e.g., parents). One principal commented that there was a need for "mental health care tools… and tools to expand attention span" (F_P_Pvt_Karachi). Another principal asked for "support in helping find or develop adequate authentic online assessment portals for teachers" schools to use for a minimum subscription. Develop course content which would help elementary teachers teach a particular subject virtually. And then blend the lesson when things get back to normal" (F_P_Pvt_Karachi).

The teachers believed that technological literacy would be critical for their survival and to cope with future disruptions. The teachers also mentioned that they need to learn skills such as developing teaching videos and conducting online assessments. They also mentioned the need to be ready to address pedagogical challenges such as "How to make my online classes more interactive?" (F_T_PvT_Karachi). Several teachers noted the need for a work environment conducive to good mental health and well-being. One teacher commented that they need support in "How to hold on to your job?" (F_T_PvT_Karachi). One teacher from Gilgit Baltistan commented: "We need new methodologies regarding technology and blended learning" (F_T_Pvt_GB).

Both principals and teachers stressed that merely adopting technology in teaching would not be sufficient unless teachers clearly understood its use and that support was needed for the pedagogical aspects of online teaching. Additionally, teachers and principals also shared how they expect support in ensuring mental health and well-being during and after the disruption. Several principals and teachers mentioned financial challenges and expectations from the government regarding financial support to continue the teaching and learning processes. Many also highlighted the criticality of addressing infrastructure and access issues.

Discussion

The study focused on principals' and teachers' experiences during the early stages of the COVID-19 lockdown in Pakistan. Findings show that in keeping with the extant international literature on stakeholder experiences during COVID-19, stakeholders such as principals and teachers in Pakistan also had to navigate challenges. They were also successful in finding new pathways into teaching and learning. Since this study sought to identify what lessons need to be learnt regarding providing teacher education in future. Following the initial lockdown, this discussion section has two parts. It will outline the pathways that principals and teachers took to navigate around key challenges. Then, it will elaborate on the relevance of study findings for teacher education and development.

As per findings, multiple pathways appeared to have been traced out by principals and teachers during the lockdown. A point of note here: in the case of public schools, online teaching was a non-issue because government schools remained closed as per study survey responses. This seems to accord with Pakistan's Government's announced policy regarding instituting "tele-schooling" to provide mass education as an alternative (Ministry of Federal Education, 2020). Therefore, the adjustment and adaptation pathways identified in the study emerged from the responses of school principals and teachers belonging to Private schools and Community Schools (i.e., NGOs or Trust schools).

One pathway frequented by most of the respondents (approx. 70%) was the immediate or rapid conversion from in-person to online teaching and learning during the lockdown. Concord can be found between school principals' and teachers' use of this pathway in Pakistan and global research on pandemic-related disruptions. For instance, an online survey by MacIntyre, Gregersen, and Mercer (2020) on language teachers, purporting to have

used a sampling frame which effectively captured a worldwide population, had a wide-scale transition to digital learning in response to conditions imposed by the pandemic and its impact on teachers, as one of its foci. Similarly, a mixed-methods study on 365 Spanish primary and secondary school teachers reports the results of examining the impact of the conversion to online and/or remote teaching has had on teachers (Aperribai et al., 2020). Harris (2020), considering the "fault lines" within education rendered so starkly visible by COVID-19, notes that the global crisis caused by the pandemic has caused the traditional education system with all its set "contours of roles and position" (p. 321) for principals to vanish; forcing them to try and find alternatives in the virtual world. In all, the alignment between this pattern in the data and extant research suggests that school principals and teachers of institutions in the private sector in Pakistan, be they for-profit, NGOs or Trust schools, were able to adapt in the lockdown, follow global trends and comply with the UNESCO (2020) recommendation to move online.

Other examples of school leaders' pathways that surfaced in the present study data include school principals trying to facilitate online learning transition by providing training support to their teachers. Additionally, the data indicates adopting alternate pathways such as principals taking conscious stock of the gaps in their knowledge of digital learning, technology-based/enhanced teaching and learning, doing their due diligence and researching before selecting platforms such as LMS and other equipment. As per data analysis, school principals also took strategic pathways to extend the support network provided to their learners while establishing a communication network between them and the school. These pathways entailed ensuring the inclusion of parents in their children's learning. Additionally, some principals tried to find alternative pathways to address inequalities created by digital divides, such as resource packs developed for students who did not have Internet access and delivered at their doorstep. There is also evidence in school principals' data of their attempt to cater to mental health needs while attending to the quality of teaching and learning processes and work overload concerns through such pathways as using a curtailed syllabus, reduced content and limiting the number of subjects. In the present study, principals were also found to use pathways that allowed them to explore alternative ways of remotely monitoring teaching and learning's smooth progress. These

alternative ways ranged from initiating virtual classroom observation by joining the classroom as a silent observer, giving feedback to the respective teacher, using Facebook groups, peer feedback, delegating monitoring responsibilities to coordinators, and taking and communicating feedback from parents to teachers.

In addition to highlighting the kind of pathways taken by principals and teachers, these findings also appear to underscore the variance in how the digital learning needs of teachers were addressed and expectations from teachers. Some data patterns indicate that digital learning provision entailed teachers using both asynchronous and synchronous teaching modes. Other data patterns suggest some pathways involved using teaching formats that were restricted to asynchronous modes. Additionally, this variance in teaching format pathways was reflected in selecting online tools. Adopting digital learning pathways also appeared to require teachers to provide contextually responsive facilitation and support. Future studies could explore whether the use of technology during the pandemic has led to reduced resistance toward technology in education and the role teachers and principals can play in a technology-mediated world.

These reported pathways to converting to online learning correspond to research findings in other parts of the world. For instance, Schleicher (2020), in their OECD Report, draws attention to how the education of an estimated 1.54 billion children and youth in more than 185 countries in Asia, Europe, the Middle East, North America and South America has been affected by the pandemic, and how the recourse taken by educations systems, in many of these countries, has entailed requiring teachers to virtually cease all use of traditional face-to-face strategies almost overnight, and forthwith shift to, or convert to online teaching using synchronous and/or asynchronous formats/methods. Study results of teachers' preferences for online learning tools such as Zoom, WhatsApp, Google and Facebook (see Table 2) are consistent with findings from other international studies (e.g., Crawford et al., 2020; Mishra, Gupta & Shree, 2020). Teachers having to take on the responsibility of providing varied and multi-faceted support to learners and parents to facilitate adjustment to online learning, is also consistent with other studies' findings. In Aperribai et al. (2020), for instance, participants reported that the time they ended up investing to support students and their parents as part of online

learning, was so extensive as to encroach on their personal and family time. Heavy teacher time investment has also been highlighted in such studies as Schleider (2020). However, the latter presents teachers' engagement in the development of responsive solutions to learner needs, and efforts to communicate and collaborate with parents in the OECD Report on educational responses during the COVID-19 crisis, as a positive opportunity and aspirational outcome.

Study findings about teacher experiences indicate a kind of acclimatization period as teachers worked towards adjusting to this new normal. This acclimatization appeared, in addition, to be linked to teachers' perceived growing ease with and the resulting extension of skills in engaging with digital teaching and learning. Some consonance can be found regarding the acclimatization period that teacher respondents in this study appeared to experience and the current literature. Mishra et al.'s (2020) mixed-methods study on online teaching in higher education in India found that study participants (i.e., teachers and students) reported experiencing and advocating for the factoring of an adjustment period to online learning. Furthermore, in Mishra et al.'s study, teacher participants reportedly emphasized that online learning required patience, increased familiarity, and enhanced digital literacy and knowledge and training. There was also an indication that acceptance of the usefulness and viability of online learning and teachers' self-motivation played a crucial role in this adjustment (Mishra et al., 2020).

The findings on the need to acclimate to online learning in the present study are also consistent with educational change literature (e.g., Fullan, 2001). Change necessitates a period of adjustment, and acceptance of the change has been found to affect change implementation. These findings also appear to link with the literature on teacher resilience (see Day, 2017). Teacher resilience is evidence of teachers' capacity to cope with rapid fluctuations and alterations in their teaching context and find the wherewithal, be it cognitive or emotional/psychological, to adjust and achieve functionality in the most challenging circumstances. In effect, findings on the acclimatization process also indicate that teachers working in the private sector in Pakistan did possess the resilience needed to acclimate to the abrupt digital learning conversion. These findings also underscore the importance of teacher resilience for acclimating

and adapting to the responsive changes and adopting pathways that a crisis such as the COVID-19 lockdown requires.

As Harris (2020) rightly makes note, the crisis, and its wrecking of the world order and the upending of educational systems left school leaders scrambling for purchase, as all structures, systems, and settings, which traditionally allowed them to forge relationships and enact their leadership roles, were rendered inaccessible in one fell sweep. Drawing on Kuhn's (2012) work on "paradigm shifts", Harris (2020) goes on to identify that finding such purchase entails school leaders working systematically towards ensuring there is "forward momentum" (p.322) even as they accept that given the unknowns in this undertaking, there may be missteps. Findings from the school principals of this study suggest that school leaders belonging to institutions in the private sector did appear to focus on pathways that offered them this forward momentum. The responses all emphasized the principal and the school management's efforts to find alternatives/pathways that facilitated teaching and learning processes despite the chaos created by abrupt school closures. The choice, as discussed earlier, to adopt digital learning, as per most responses from principals and teachers alike, is an example of this.

In all, the study findings have several implications for teacher education. They draw our attention to technological, sociocultural and other contextual issues that are likely to affect teacher education programs, both pre-service and in-service, beyond the disruption phase (Carrillo & Flores, 2020). This renewed urgency to prepare our teachers and educational leaders for a rapidly changing and more disruptive world calls for "a holistic vision and commitment to the resilient transformation of education and learning for the most marginalized" (Unwin et al., 2020). Preparing teachers for accelerated change in teaching and learning requires providing them with a breadth of skills and specialized knowledge. This would mean that teacher education programs should focus on teachers' holistic development and well-being, sequencing and pacing curriculum for disruptions, ensuring appropriate pedagogies and wise use of technology in education for disruptive times. Similarly, educational management programs will need to revisit the existing offerings and update those with need-based, contextually relevant strategic response ideation and planning imbued

with humanistic engagement, inclusivity, and flexibility. Moreover, a national-level study of the Pakistani public and private schools to determine the macro and micro status of education during this pandemic and its impact emerges as a future action imperative. This national-level study would allow for devising contextually- responsive facilitation for innovative approaches to mass school closures that prioritize inclusivity, appropriate use of technology with varying modalities, and support for principals and schoolteachers and the importance of creating communities that facilitate learning.

Conclusion

The contemporary Pakistani educational landscape was, as evidenced by this study, hewn by multifaceted challenges and concerns during the COVID-19 pandemic. The key players, school teachers and principals, highlighted educational issues, including social and mental health aftermaths. The study findings appear to foreground that school teachers and principals successfully explored alternative and strategic pathways to adapting to educational needs in the lockdown. This adaptation to life in the lockdown followed transition and acceptance to change, adjustment and implementation of the changed contextually responsive pathways. However, given the continued disruption due to the second wave

and possibly consequent waves as are witnessed worldwide, it is vital that we learn from the initial COVID-19 educational response.

This study highlighted the existing educational inequities between public and private schools, where those belonging to the former suffered extensive learning loss, while the latter forged on via evolving digital learning and minimized learning loss. The study underscores the importance of re-examining resource allocations to support schools to ensure all students have access to resources, especially technology, and the need to prepare school leaders and teachers to cope with disruptions and create support mechanisms for them to avail during such disruptions. Moreover, cross-pollination of successful pathways tried out by private schools may benefit the larger but least privileged public schools. In the short term, however, it may be prudent for the teacher education and educational leadership programmes to both recognise and tap into the neighboring schools' capacities, forming partnerships to seek solutions to issues that unfairly impact the more vulnerable. More precisely, the response from teacher education and educational leadership programmes must be to provide immediate and relevant support to school principals and teachers.

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EXPLORING STUDENTS' EXPERIENCES OF MOODLE TO FACILITATE THEIR LEARNING

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Abstract

Moodle is one of the online learning management systems that has brought about dramatic innovation in teaching and learning methods. This research aims to study the use of Moodle as an online teaching platform to facilitate students' learning. It specifically aims to identify the factors that may impact students' accomplishments and the obstacles they face in using this online platform for their academic studies. This study applied the case study research design within the qualitative research paradigm. The purposive sampling technique was applied by taking third-year undergraduate students from a private university in Karachi, Pakistan. Data was collected through students' focus group discussions, teachers' interviews, and students' online performance on Moodle. The thematic analysis took place where the recorded data was first transcribed, and different codes were generated, and then categorized. The findings indicated that the factors contributing to students' accomplishments in using Moodle mainly depend on students' learning motivation and achievements and the collaboration and communication between them and the teacher via the e-learning platform. The results also demonstrated that the obstacles students faced related to the frequent disturbance in computer devices and misusing of online discussion forums by some classmates. It is recommended to fully orient students and teachers on using Moodle for learning and teaching purposes.

Keywords: Moodle, obstacles, online platform, perceptions, students' learning

Introduction

Online learning, also called e-learning, has become popular in recent times in addition to the face-to-face teaching approach (Dougiamas and Taylor, as cited in Al-Ani, 2013). There are different Learning Management Systems (LMS) that are used to build and manage online learning platforms. Educators use LMS to deliver content to their students via the Internet. Moodle, which stands for

'Modular object-oriented dynamic learning environment' is a free, open-source platform used for e-learning, with flexible management tools that educators can use to achieve learning goals in online teaching. Moodle is mainly used for delivering distance and online courses, flipped classrooms and other e-learning programs in the education and corporate sectors (Moodledocs, 2018). Martin Dougiamas developed Moodle in 2002, while solving WebCT problems on a postgraduate degree in Australia.

The purpose of Moodle in education is to facilitate students in their learning, where they can attempt the activities and collaborate with teachers and colleagues at their ease and time. However, it has been observed that most university teachers in Pakistan still face problems with this online platform as the actual purpose of using Moodle is not being fully met (Iqbal et al., 2022). In Pakistani context, students seem less interested in using Moodle and prefer face-to-face classes in place of web-based classes. As a result, they neither participate in online forums nor fully attempt the activities. This affects their online performance, and it becomes challenging for a teacher who is involved in the teaching and learning process to manage students' online performance. Moreover, teachers are also not fully aware of how Moodle can be used to facilitate students' learning as they use it to upload the material, which merely acts as an online repository (Shahzad & Aurangzeb, 2021). This then also becomes a problem because teachers are unable to determine the ongoing development of students, which is necessary to find out the strengths and weaknesses in students' learning.

A lot of work has been researched on Moodle in the West, where organizations and educators are using it, and the results have confirmed its efficacy in terms of its use in first-language (L1) learning settings. Moodle is also becoming common in Pakistan, and universities have started to adopt it in their teaching and learning platforms, especially during the COVID pandemic. However, very little research study is conducted in the context of

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Pakistan where Moodle is taking its grip in the e-learning environment.

Therefore, this study will benefit teachers and educators in a way where they will understand the key factors and challenges of Moodle that affect students' learning and will keep them in mind while designing online courses for their students. Since this is still a new platform in Pakistan and has brought improvements in the ways of teaching and learning, it is thus important to analyze how Moodle works. For this, the study aims to explore the reasons behind Moodle's use that may influence the learning achievements of students.

This study intends to explore the following questions:

1) What are the primary factors of Moodle leading mostly to the accomplishments of the students?
2) What are the obstacles students face while using Moodle for their studies?

Literature Review

Originally, Siemens and Downes gained growing attention in 2005 when their ideas on distributed information were discussed (Corbett & Spinello, 2020). An extended debate on the role of 'connectivism' as a philosophy of learning for the digital age was introduced. Over the last two decades, technology has modernized how we learn, work, and communicate. Therefore, the learning needs and theories that define the learning concepts and processes should reflect the current social environment. When the existing theories of learning are seen through technology, several important questions are still raised. The theorists' natural attempt is to continue overhauling and changing ideas as circumstances change. Nevertheless, the underlying conditions at some stage have changed so dramatically that further changes are no longer practical. Therefore, a completely new method is required, because we can no longer undergo and gain the information we need to act. We derive our know-how from interactions through different means (Siemens, 2005; Kerzic et al., 2017).

Connectivism is a theoretical framework that explains learning. The point of departure for learning takes place when knowledge is generated through a learner's cycle of communicating with others and feeding information into a learning community. To further elaborate on this, Siemens (2005) states that "a community is the clustering of similar areas of interest that allows for interaction, sharing, dialoguing, and thinking together" (p. 2). New

information is constantly being obtained and is crucial to be able to distinguish between valuable and unimportant information. The ability to identify when new data changes the landscape on the basis of yesterday's decisions is also important to consider. Siemens further stated that connectivism begins with the individual and this is where personal knowledge consists of a network that feeds into organizations and institutions and then re-enters the network and provides individual learning. In addition, a learning group is defined as a node in the connectivist model which is always part of a larger network (Downes, 2010). The objective of Moodle is to offer a platform by using online tools to endorse an inquiry-based approach by creating an environment that allows students to participate individually or with classroom teaching.

Additionally, Moreno et al. (2007) believe in having an approach that is closer to the real world by having discussion groups with proper pedagogical and realistic online teaching techniques, as it would orient learners to a variety of different online tactics (Heckman et al., 2000). It is also believed that Moodle strengthens learners' interpersonal language skills as it includes social contact between the teacher and learners. Online discussion forums and synchronous online meetings are a few examples of applying the connectivism theory in using Moodle.

Al-Ani (2013) conducted a test seeking to define factors underlying the use of mixed learning that may affect learners ' success, motivation, cooperation and communication. The findings show that Moodle has a regular amount of efficacy while linked to the motivation of learners. The results also indicate that students are met with many obstacles in learning with Moodle. Some of these barriers relate to the disturbance of the network followed by deficiencies in the network of the university. Other barriers are linked to learners facing computer screen learning problems and being concerned about doing online quizzes.

In another study, Costa et al. (2012) investigated the use of Moodle in a Portuguese university where they analyzed the Moodle platform's functionalities and instruments. The findings indicate that Moodle was primarily used as a repository of products despite its excellent potential. However, to support the achievement of the teaching/learning method, learners acknowledge the significance of using other functionalities of this platform. It is therefore essential that this e-learning platform is correctly

used to enable learners to take full benefit from it, and this is one element that could be further examined in this paper.

In addition, Hsu (2012) carried out an empirical study to explore the adoption and use of Moodle by learners. For this, an online discussion forum was established on the Moodle platform. Multimedia features like the discussion forums in Moodle are thought to be vital to generating interactive discussions to develop more effective learning environments. The behavioral intentions of students have been shown to be an important determinant of Moodle's real use. Hence, Moodle acts as a successful supplementary platform for learners.

Similarly, Uzun (2012) conducted a study where Moodle and some other internet instruments were implemented to demonstrate how they can be practically incorporated into education and how they can promote teaching and exercise of foreign languages and intercultural communication. The most significant advantage of using this online platform (Moodle) is to deliver a rich and enduring learning experience for learners. However, it was certain that a great deal of advancement is required both in software development and in teacher training to show them how to integrate a particular software into their lessons and how to advance their job in digital settings

Methodology
Research Design
A qualitative design allows researchers to investigate everyday human behavior (Thomas, 2003). This supports integrating new innovative ideas into the field. This research accounted for university students' current use of Moodle and their attitudes and challenges towards using the online platform. For this, a qualitative design was the most suitable, as it permitted students to gain a better understanding of students' experiences and behavior towards using Moodle (Merriam & Tisdell, 2015).

The present study employed the case study research design within the qualitative research paradigm. Case studies are in-depth investigations of a single-person case, group, event or community using multiple data collection techniques (Merriam & Tisdell, 2015). The issue of generalizability will be larger here, but we would still be able to learn from this study and the information from the analysis will be able to be transferred to similar situations.

Sample
A purposive sampling technique was applied in this study as it targeted a specific group of students who had reasonable years of experience using Moodle and could thus talk about its features and how they felt about using it for their studies (Punch, 2006). The sample consisted of 15 undergraduate year three students who had been using Moodle for a while and three teachers from the same department who also had at least four years of experience using Moodle. It was kept in mind to interview the same teachers who were teaching the students in the study. The participation in this study was completely voluntary.

Data Collection Techniques and Instruments
The data were collected through three focus group discussions conducted with the students, three interviews with the teachers and through tabulating and analyzing the results of students' online performance on the Moodle platform.

Semi-structured questionnaires were designed for both the students and teachers and for that purpose, pre-planned questions were developed to frame the needed discussion in advance (Richards & Morse, 2007). Face-to-face discussions and interviews helped me to find more about the students' and teacher's feelings, attitudes, and reactions towards using the Moodle platform. The questions that were asked from the students and teachers were more general at the beginning to gain a broader perspective and understanding. Then we moved to more specific questions and through this, the funneling technique was applied in asking questions as per Smith and Osborn (2015). The interviews were tape-recorded and transcribed after gaining consent from the concerned parties. The transcripts were also shared with the participants to check that the interpretation of data was recorded accurately.

The information on students' online performance consisted of their weekly log data, participation in discussion forums, the grades they achieved from different H5P activities, Wiki use and the assignments they submitted over a ten-week English writing course. Veselinova and Ristova (2014) support the idea of incorporating different online learning tools in a systematic and interactive way, either synchronously or asynchronously.

In qualitative research, validity and reliability have been credited with the concept of trustworthiness and are looked at through the credibility or

authenticity of research (Golafshani, 2003). In this research, it was maintained through the triangulation of data where more than one method was used to collect the data (Merriam, 2009). This also helped rule out the possibility of researchers misinterpreting the data and the potential presence of biases, and for this O'Leary (2014) stated that to maintain the credibility of the work, it is important to thoroughly assess and investigate the subjectivity of the documents and researcher's understanding of the data.

Data Analysis

As per Saldana (2013), the thematic analysis took place where the recorded data from discussions was first transcribed, then after that, different codes were generated and categorized. The different categories were then merged into themes to pull together data for further discussion and interpretation. Using Saldana's (2013) analysis, the codes that were applied were simultaneous coding, descriptive coding, and evaluation coding. With all this, the students' work on Moodle and their online performance were also analyzed. This helped me to understand how the students used the online platform.

Results

This section highlights the findings of the key factors of Moodle leading to accomplishments and obstacles faced by the students in using the online platform. The data was collected via three students' focus group discussions, three teachers' interviews and students' online performance. Themes from this data were derived using the coding manual by Saldana (2013). A total of four themes were extracted (a) students' learning motivation (b) students' learning achievements (c) students' collaboration and communication, and (d) obstacles faced by students in using Moodle.

Students' Learning Motivation

It was found that 'time' played an important part in the usage of Moodle as nearly all students felt that this online platform enables them to complete activities at their own time and pace and thus gives students the autonomy and control over their learning which as a result plays a motivational factor for students to complete the online activities. During the focus group discussion, one student commented that, "I like the timings part as I can do the quizzes and activities at my own time when I am free and relaxed. There is no rush as such. I can also download the lecture notes any time." This is a strong factor of online courses as students have the

liberty to attempt activities as per their convenience and study schedule.

Similarly, students also commented that the feedback on Moodle is quick as some activities provide answers immediately and that they do not have to wait for anyone to provide the answers. Thus, students like receiving instant responses and this encourages them to actively attempt more activities. Additionally, a student summed up his thoughts by saying, "We get feedback from the teacher within five working days so everything is quick and fast on Moodle." This shows that the students want instant feedback from teachers that is given to them in a short time through Moodle and this motivates them to continue working.

It was also mentioned by students and teachers during the discussions that students prefer having a variety of online activities or content which includes listening to subject-related audio recordings or watching videos, taking quizzes, conducting online surveys, and so forth. The same idea was supported by a student in the following line, "I like watching the videos and quizzes on Moodle. The good thing about doing those quizzes is that we can try the questions as many times as we want."

My reflection on the students' online participation on the Moodle course page also informed me that the students were more confident in doing activities that were easy to do and required less time. Furthermore, according to the online progress report, they had a strong preference for unassessed online quizzes and videos. It is therefore very crucial for teachers to consider a multitude of activities if they want to improve students' online participation, as students want activities that are interactive and energizing.

Additionally, as mentioned earlier, students also want tasks that are easy to do and require less time to complete. However, this part is debatable, as according to the three teachers, the activities in the weekly folder are designed in a way where students will be required to spend three hours online every week to complete them. With this, students are obliged to follow the online participation rules, hence a teacher further elaborated that, "When we do the planning, we plan the activities by keeping the time estimation in mind. For example, if it's three hour online per week, then the activities would require them to spend at least three hours online to complete."

Moreover, based on the discussions with the students, it was noted that the students seemed very excited about receiving online badges as a way of appreciation from teachers. The students very eagerly commented that they look forward to receiving the badges after doing well and this gesture boosts their morale to work harder online. The teachers in the interviews were also of a similar view and commented that students like receiving badges and this act of appreciation boosts their morale. This is also very evident from students' online performance as they try and attempt the activities quickly to receive the badges.

Students' Learning Achievements

The information from all the three sources that are students' focus group discussion, teachers' interviews and students' online performance indicate that students are more active on Moodle when there are personal benefits attached to it or there are incentives and goals for them to achieve. Moreover, the students and teachers also felt that by doing the activities online, students are more inclined to develop the habit of searching for more information. This is often the case as students are required to look for information to further enhance their current knowledge. A student was of the view that, "The purpose of Moodle according to me is to extend our knowledge and form a learning community." Therefore, by attempting the activities online, the students are then able to better comment on the said area/topic and this more likely increases their morale and self-confidence too. This can be further confirmed by looking at students' online scores and the time they spent online in doing each unit. It is therefore clear that Moodle teaches students to develop their self-management skills as students are assigned with activities over a period and the need to manage the time and complete the activities themselves. Another point here would be of doing the activities to find out whether they meet the learning needs of the students. A student specified that, "There is a lot of good content on Moodle so yes it meets our learning needs. I wouldn't say no to this question as I am happy with its use."

During the interviews with the three teachers, it was found out that the activities are designed in a way by keeping students' interest and learning needs in mind. Thus, the teachers were very confident that the activities on the Moodle meet that criteria. This is also evident by the way the material, activities, and assessment are set out on Moodle and students' online scores confirm this.

Students' Collaboration and Communication

The students in the group discussions were of the view that Moodle allows them to exchange ideas and information with each other and this process helped them in generating new thoughts and ideas. They also further stated that this online platform also provided them the ease to be able to communicate with each other and the support they received from their peers and teacher was positive and helped them to understand the activities better. On this, a student commented that, "It is good as we get an opportunity to chat with our colleagues and learn from each other."

The teachers in the interviews were also of the same view as one of them elaborated that:
"At times, students need technical help where they need to record or upload an audio recording or do activities. The students these days are very smart so they ask each other and resolve the issues themselves."

This proves that Moodle is the kind of platform that provides students an opportunity to connect in a more communicative and interactive learning manner. Moreover, this is also apparent from students' performance on online forums, where they collaborate and help each other out on technical and content-related matters while attempting the activities.

Obstacles faced by the students

The students and teachers in the discussions and interviews identified two main challenging factors that students face with the online use of Moodle and these are computer, or IT-related technical issues and students' own commitment to using the Moodle site.

A few students commented that there are times when the Internet is slow at their place, and this requires them to refresh their Moodle page often, so they prefer activities that are easy and quick to do. Also, only two students mentioned that they face difficulties in doing activities that are a bit technical, but they then take help from their peers or teacher to do them. However, this is not the case with everyone else and the remaining students have not shown any disinterest in the activities that require time to complete.

Moreover, quite a few students commented that they hesitate to write in discussion forums as they feel that they could be judged on the way they write and their responses are recorded so that

everyone could read them. A student on this matter stated that: "I feel pressured when I have to write something on the forums as I feel the teacher and other students will judge me on what I write. In class it is different, as you speak and no one really remembers what you said.

Another issue related to the discussion forums was highlighted and it is when students post a lot of messages without considering other students' perspectives. This may cause discomfort to other class members and thus, it is important for the teacher who is moderating the discussion forums to set a limit on the number of posts by each student. A student in the focus group discussion mentioned that "I don't like forums because some people just use it without thinking what they are saying. They go on and on sometimes just to impress others and waste time. It should be more like a help forum where we post our queries and issues."

Similarly, one of the teachers in the interview also said that "Students don't like discussion forums too much as some students get carried away and as a teacher I have to monitor such forums very closely. If a discussion gets too carried away by one or two students then I need to stop them and allow others to contribute as well." On the other hand, there are some students who like these forums as they have a sense of community through them and like to interact with others. It has also been observed through students' online work that students who are more confident in writing are the ones who like to post comments on forums. With this, it can be concluded that there are certain factors that affect students' overall performance in using the online platform.

Discussion

The findings of this study indicate that the factors that contribute to students' accomplishments in using Moodle are mainly dependent on students' learning motivation and achievements and the collaboration and communication that takes place between students and teachers through using the Moodle platform. Moreover, there are also some obstacles that students face with Moodle, which should at least be thought through by teachers when designing an online lesson for their students.

The results regarding the first theme of students' motivation in using Moodle indicate that the way students learn, and grasp information online has changed over the years. Similar results were reported in another study which also revealed that students like the online learning platforms due to the

feasibility in time that allows them to attempt the online work at their convenience and this releases some pressure from them as compared to synchronous learning (Al-Ani, 2013). This finding is also supported by connectivism theory which states that the learning needs of students should be reflected in the current social environment that teachers use to deliver their lessons (Siemens, 2005). Thus, making the online platforms convenient for students by inducing self-directed learning. Additionally, students also favored Moodle due to the accessibility of available teaching material and activities from virtually anywhere.

Moreover, students are also motivated when their answers are corrected immediately by the system via the automatic feedback option, as this is another factor where students' preferences have changed over time in this fast-paced world (Layla, 2019). Moodle also provides the facility to students where all the material and activities are available in one place, thus making access easy for students. With that, the online page also allows teachers to incorporate a variety of different activities, for example, assessed or reassessed quizzes, videos, activities, discussion forums, class presentations, articles and any other learning material which are strongly preferred by students. A reason for this is that due to technology, the information is at the fingertips of students these days, and to combat monotony, they prefer having a variety of activities that are quick to do (Al-Ani, 2013). Another advantage of using Moodle is that it caters to the needs of students of different learning styles (Woltering et al., 2009). This is possible as Moodle allows teachers and course moderators to design and upload different types of activities. Hence, making learning more effective for everyone.

Another important element of Moodle that motivates or appeals to students to do well is receiving the online badges as a token of appreciation from teachers. This is supported by literature that found achievement-based rewards during learning or testing increased participants' intrinsic motivation (Zhou et al., 2019). Even though the students in this research were adults yet they enjoyed these small tokens of appreciation; this has also been discussed by Zhou and colleagues (2019). Therefore, rewards and incentives may be used in an educational environment to boost the performance and motivation of students at all levels.

Moreover, students also tend to show interest in

work through which they know they have accomplished or learnt/achieved something new. This supports the notion of connectivism which says that new information is constantly being obtained through different forms (Siemens, 2005). From this study, it was evident that Moodle helps students in developing the habit of self-exploration and continuously seeking new information. Additionally, it was also observed that students like activities that challenge their thought process, thus improving students' inquiry and critical analysis skills (Costa et al., 2012).

The online interaction between students to students and students to teachers has been shown to be an important determinant of Moodle's real use (Holbl & Welzer, 2010). This functionality of Moodle to allow online discussions is strongly supported by connectivism, which states that the knowledge is generated through a learner's cycle of communicating with others and feeding information into a learning community (McLuckie et al., 2009). Thus, the online collaboration and discussion play an important role and are crucial to be included on any online platforms.

The challenges that the students face with regard to the use of Moodle mainly deal with connection issues and students' own commitment and skills to participate actively online. The latter issue can be addressed by developing one's skills in the said area and as supported by Sari and Setiawan (2018) and Summak et al. (2011).

Additionally, as the literature says that online forums are vital in generating interactive discussions and debates to develop a more effective collaborative learning environment (Ryan, 2013). However, in this study, the students were of a different view regarding the online forum's usage as they had the experience of using it in a different manner where at times a few students overtook the discussions in the forums. This is an important finding for teachers who moderate the forums to keep a close eye on the discussions that place and to ensure that the discussions are solely used to generate new ideas and assist students where they require help (Holbl & Welzer, 2010). Also, it is a teacher's duty to create a safe online environment for students who hesitate to comment and encourage them in posting their comments in the forums.

There were a few limitations that could not be avoided at the time of the data collection process. Firstly, the students had just finished their exams when asked for the date of the focus group

discussions and not everyone was available at that time, so I had to further delay the dates and due to COVID-19 virus I could sense that the students were not very relaxed and seemed rather worried and tense as they were asked to go back home and majority of them were traveling that week as they belong to the Northern part of Pakistan. The teachers were also very busy and had the exam marking to do. However, both the groups still gave their time and answered the questions that were asked from them.

Nevertheless, the results provided in this study will help teachers track the success of the course and allow them to easily recognize students that are not performing well, and this will allow them to change their pedagogical strategies online accordingly.

Conclusion
Moodle is an e-learning platform designed to help educators customize and deliver their teaching courses online. It aims to create a positive learning experience for students by allowing a variety of synchronous and asynchronous activities integrated into the platform. There are various ways Moodle can be used to help students learn most effectively online. This study tried to identify the factors behind the usage of Moodle that contribute to students' accomplishments and the challenges faced by them in using it. It was found out through this study that students' learning motivation, their learning achievements and collaboration and communication are the three main factors that contribute to students' online performance. The results coincide with those of connectivism theory where maximum learning takes place by forming a learning community online and that discussions and dialogues confirm an instrumental and functional use of the platform.

Furthermore, students tend to like Moodle due to the time flexibility factor as it allows them to complete tasks as per their convenience and ease. Students are also motivated when online courses offer different types of interactive activities that challenge their mental thought process. Students also like receiving appreciation badges for the good work they submit. This motivates them and helps them to achieve their targets. On the other hand, most students found the discussion forums to be a little complicated and suggested to be properly moderated by course teachers. This is an important finding as it was anticipated that online discussion forums would lead to better discussions and such forums are considered the heart and soul

of an online classroom. However, the key over here is to keep a close eye on the kind of discussions that take place, and they should be properly moderated by the teacher.

Nevertheless, it is expected that this study will contribute to the expanding knowledge of the use of Moodle and will orient everyone on the factor(s) that impact students' learning with some challenges that they come across in using it. With that, it can be concluded that this research has helped in understanding the factors liked and disliked by students and that students prefer having a collaborative learning environment that allows them to support and learn from each other (peers) and teachers without misusing the discussion forums on the course. Thus, the proper use of Moodle would contribute more towards a sharing culture that can help students develop their critical thinking and reflective skills. Similarly, the behavioral intentions of students have been shown to be an important determinant of Moodle's real use. Hence, Moodle acts as a successful supplementary platform for learners. If planned properly, Moodle can deliver a rich and enduring learning experience to students. The flexibility of this form of

e-environment could enhance the enthusiasm of students and their ability to learn how to achieve their learning goals.

Recommendations and Future Studies

It is recommended to initiate the use of Moodle in universities by first training relevant teachers on how to use Moodle for teaching and learning purposes. This would help them understand different dimensions of running online or blended courses and to design and deliver Moodle courses effectively. For students, it is advisable to brief them on the use of Moodle and its main features before the start of any course. On the other hand, it would be worthwhile to explore the relationship between the different domains/areas as well. Moreover, finding out about the effectiveness of Moodle would also be an interesting area to be explored.

Ensuring sustainability in practice, this study can be further extended by involving other departments and subject specialists and explore how they are delivering their lessons through Moodle. Thus, conducting a cross-departmental study would help overcome the current challenges and as a result could improve students' online performance.

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THE NATIONAL FACULTY DEVELOPMENT PROGRAM: CONSIDERING DIVERSITY, EQUITY, AND INCLUSION

Sara Zubair, Shazia Awan, Steve Burian, Hassaan Khan, Saima Sherazi

Abstract

The National Academy of Higher Education at the Higher Education Commission of Pakistan conducted a faculty development program for over 500 new PhDs prior to their placement at universities. Initially envisaged as a residential, face-to-face program, the National Faculty Development Program 2020 had to pivot to a remote, online format due to the COVID-19 pandemic and lockdown. In this paper, four instructors and an administrator of the program discuss how inclusivity and equity were built into the design and delivery of this program at all stages. The paper begins with an overview and background of the program, followed by reflections on the Universal Design for Learning, active learning, engagement beyond 'the classroom', and the use of skill-building clinics for inclusive practices in English language development. It concludes with a discussion and some questions for further study. The authors conclude that the program-built capacity for online as well as in-person delivery to support adaptability, flexibility, empathy, confidence, and the possibility of incorporating inclusive practices. An attempt is made in the paper to retain the distinctive authorial voices of the contributors, in order to support the cultural, geographical, disciplinary, experiential and other diversity in the team.

Keywords: Higher education, faculty development, online, inclusive, instruction.

Introduction

The Higher Education Commission (HEC) of Pakistan launched the Interim Placement of Fresh PhDs (IPFP) Program in 2009 to provide employment to selected new PhDs as Assistant Professors in Pakistani universities for a year. As of April 2019, about 75 per cent of 4,337 IPFP Fellows went on to be hired as permanent faculty at their respective universities. The fact that the remainder had not been retained at their institutions led to a revised policy in which the HEC mandated that IPFP candidates would be required to receive training prior to their year's placement.

The National Academy of Higher Education (NAHE) was launched in June 2019 and tasked with the design and delivery of this faculty development program. A newly established NAHE also saw this as an opportunity to incorporate essential knowledge and skills to enhance equity and inclusion in classrooms, in line with its mission . This led to the development of the National Faculty Development Program 2020 (NFDP-2020) to synergistically address both needs.

This paper presents reflections of the NFDP-2020 administrators and instructors to share ways in which equity and inclusion was incorporated into NFDP-2020 in two dimensions:

(1) To enhance the achievement of all learning outcomes
(2) To enhance learning of ways to promote equity and inclusion in participants' classrooms.

Crucially, a shared focus on in-person and online instruction aimed to help those that completed the program to be adaptable to a relatively unknown post-COVID era to meet the needs for instructional delivery, given future constraints and challenges.

NFDP-2020 was designed to "practice what we preach" related to equity and inclusion, and our reflections highlight examples related to the administrative planning, instructional design, and delivery of teaching aspects of NFDP-2020. The next section presents a brief overview of the NFDP-2020, followed by examples of intentionally incorporating learning of equity and inclusion. The paper concludes with a brief discussion and recommendations.

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[15]*HEC Policy for the Interim Placement of Fresh PhDs – Phase II http://www.mofept.gov.pk/SiteImage/Misc/-files/HEC%20-%20POLICY%20FOR%20INTERIM%20PLACEMENT%20OF%20FRESH%20PHDs%20%20(IPFP).pdf*
[16]*https://www.hec.gov.pk/english/services/faculty/NAHE/Pages/intro.aspx*

National Faculty Development Program 2020

NAHE initiated its response to the need to conduct a faculty development program for approximately 600 recent PhDs seeking placement at universities across Pakistan in November 2019. The process began with a pre-assessment to gauge participants' understanding across three broad areas: teaching effectiveness, research, and academic leadership. This 180-minute assessment was designed to be as general as possible, given that candidates represented a wide range of disciplinary specialisms. A combination of multiple choice, short answer and essay questions covered elements of these areas and included topics like academic honesty, grant-writing, candidates' teaching philosophies and research plans. It was conducted on January 26, 2020 across five HEC regional centers.

The results suggested several gaps including written communication, analytical skills, challenges, and determinants of good teaching, as well as the absence of a clear research plan or vision. Based on this understanding, the NFDP-2020 started to take shape with me, Sara Zubair, as its focal person at NAHE, under the stewardship of the Rector, Professor Shaheen Sardar Ali. Dr Steven Burian took the helm for design and delivery: NFDP was envisaged as an intensive, one-month residential program to be held concurrently at HEC regional centers and certain universities across Pakistan. While discussion was underway about just how many times, we would need to run the program to accommodate the sheer number of candidates –

540 after pre-assessment – Pakistan went into lockdown at the end of March 2020 due to the rapid spread of COVID-19. What did this mean for the NFDP?

First, everything had to pivot to a fully online mode of delivery. This not only meant rethinking content, e.g., doing away with a separate module on 'technology in education' and drawing attention to technology throughout the program, but also redesigning what a day would look like when it was virtual. Second, NAHE had to fulfill all HEC requirements to ensure it was "online ready" as an organization. Third, suddenly the most difficult operational questions we had confronted now had answers: how would we accommodate such large numbers of participants?

How could we keep track of so many concurrent workshops to ensure consistent and sustained quality? Who was going to deliver all these workshops?
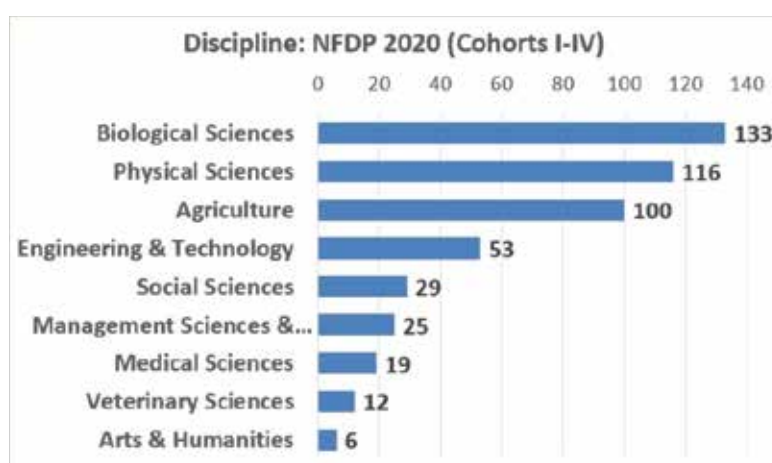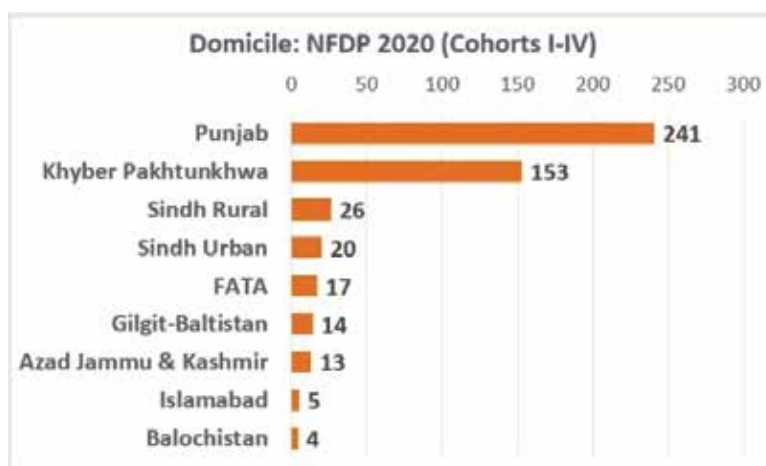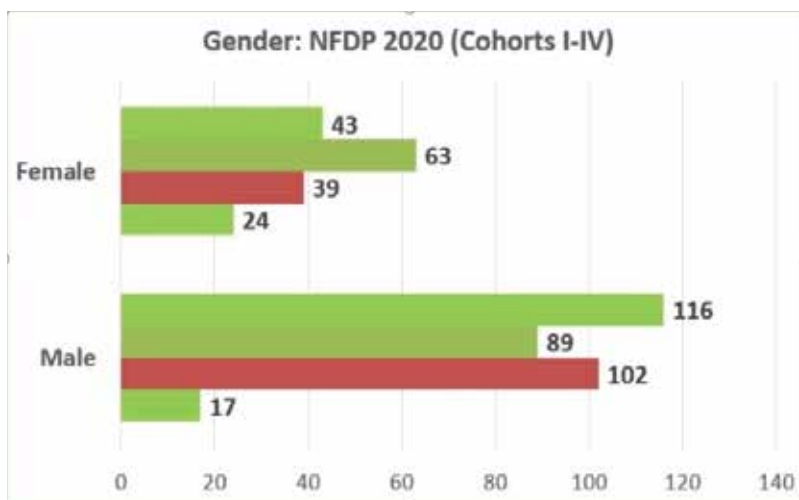
The first two of these answered themselves the moment NFDP-2020 went online; for its online iteration, Dr Steve Burian and Dr Shazia Awan led the instructional team, which included Dr Saima Sherazi, and Dr Hassaan Khan. The instructors joined the program from the United States, Canada, United Kingdom and Pakistan, respectively. Four cohorts were planned, starting with a cohort of about 40 participants or Fellows, and the remaining three with 100-150 Fellows each.
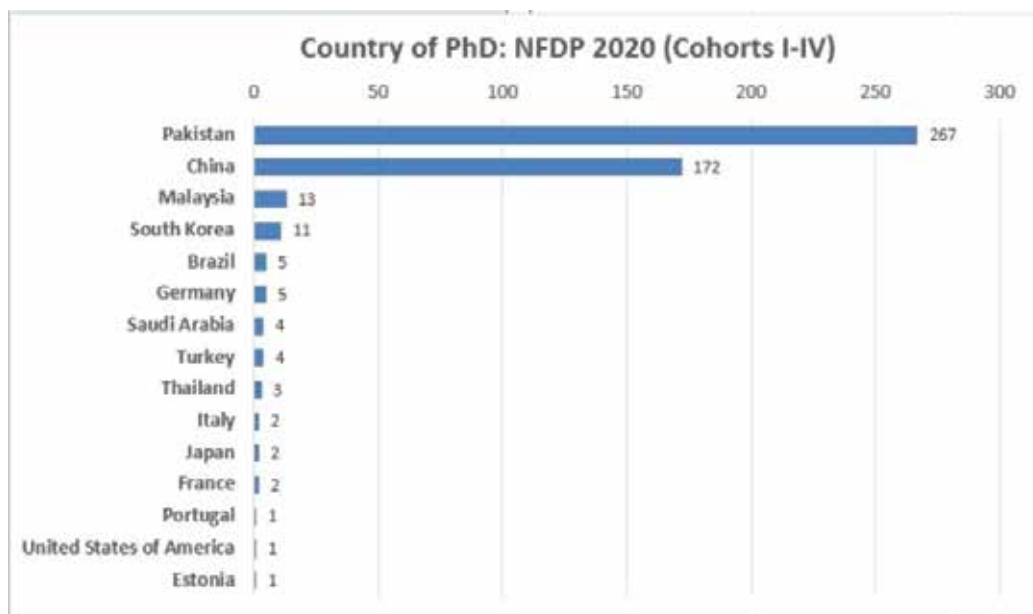
A typical day in the 24-day program was as follows:

Table 1. Daily Schedule

Time (PST)	Activity	Interaction Method
8:00-10:00 am	Live Interactive Webinar and Learning Activities	Synchronous
10:00-10:30 am	Break	
10:30-12:30 pm	Reading Boot Camp	Synchronous
12:30-1:30 pm	Lunch Break	
1:30-3:30 pm	Writing Boot Camp*	Synchronous/Asynchronous
3:30-4:00 pm	Break	
4:00-6:00 pm	Labs, Juries, Panels*	Synchronous/Asynchronous
After 6:00 pm	Additional Work Time, Mentoring & Coaching	Synchronous

The following graphs are a snapshot of the diversity inherent among NFDP-2020 Fellows across gender, domicile, country, and discipline of PhD earned.

Gender: NFDP 2020 (Cohorts I-IV)

Domicile: NFDP 2020 (Cohorts I-IV)

Discipline: NFDP 2020 (Cohorts I-IV)

Country of PhD: NFDP 2020 (Cohorts I-IV)

To maintain an emphasis on equity and inclusivity throughout the process, not only because of the diversity reflected in the program, but also with Fellows' varying levels of interest, engagement, ability, and accessibility – particularly at a time when the world was confronted with a pandemic and its unsettling effects – was challenging to say the least. However, in the sections that follow, each instructor will share their reflections on an element of the program to create a sense of how diversity, equity, and inclusion were woven into instructional design and delivery.

Approaches to Promote Equity and Inclusion in NFDP-2020 and Fellow Capacities

The first subsection is Dr Shazia Awan's reflections on how Universal Design for Learning was incorporated in the design and instruction of the program. This is followed by Dr Steven Burian's discussion on the lesser-known benefit of active learning for equitable and inclusive classrooms. Dr Hassaan Khan's focus is on student engagement beyond seminars and structured activities, by sharing how the online environment was also able to lend itself to the concept of 'outside the classroom'. Finally, Dr Saima Sherazi reflects on ways in which a focus on English, particularly writing for academic purposes, supported the program's emphasis on inclusivity. We have made a deliberate attempt to maintain each contributor's authorial voice to echo how diversity in the administrative and instructional team supported the program's emphasis on inclusivity and equity without aiming to homogenize individual strengths and attributes.

Universal Design for Learning

Course design, use of online educational tools, development of resources, pedagogical principles, institutional support, and student support and monitoring involve careful thinking and planning, particularly for online teaching and learning (Rapanta et al, 2020). One design practice that has been used to make courses more inclusive and accessible in the digital environment is Universal Design for Learning (UDL). UDL is a scientifically developed pedagogical framework that was originally introduced to consider integration of inclusive practices for students with special needs. Since the 1960s, UDL has evolved into a framework that helps create an inclusive environment for all students and helps "improve and optimize teaching and learning for all people based on scientific insights into how humans learn" (CAST, 2018).

NFDP-2020 followed UDL guidelines using three frameworks: the Universal Design for Learning (UDL), the Universal Instructional Design (UID) and Universal Design of Instruction (UDI). These informed the design for learning, instructional design of the online course on Moodle (the selected Learning Management System for the program), and design for virtual classroom instruction in both synchronous and asynchronous formats.

A deliberate effort was made by the instructional team to create an inclusive, accessible, and equitable online learning experience. Course offerings were made in more than one format that provided multiple means of representation (Fig. 1, Green section); for example, synchronous lessons, interac-

tion with the course material, instructors, and peers both synchronously and asynchronously. UDL also informed multiple ways to motivate students to learn through multiple means of engagement (Fig.1, Purple section). Some of these were office hours, peer and mentor support, and synchronous participation on Google docs. Careful deliberation also ensured learners know, are able to, and value learning through multiple means of action and expression; for example, short quizzes during synchronous lessons, module quizzes on Moodle, individual assignments, team and group assignments in both written and spoken formats

While participants attended the program from Pakistan, and the timetable ran according to the Pakistan Standard Time, instructors joined from Atlantic Standard Time (NS, Canada), Mountain Standard Time (Utah, USA), GMT and Pakistan Standard Time. The course was designed with some inherent flexibility for time for this reason, as well as to be inclusive and accessible for learners, such as adjusting the schedule during the month of Ramadan. This was challenging due to the length of the course itself.
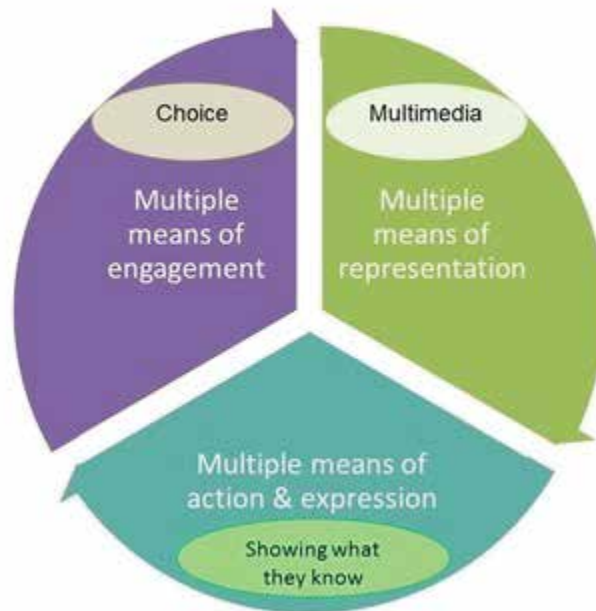

Figure 1: UDL as it was used for NFDP2020 course design optimized the teaching & learning by giving more choices throughout the process (Image by Sebouh J. Serabian)

Five principles of universal instructional design were adhered to: (i) accessibility to the content before, during, and after the course (ii) consistency in presentation of the content (iii) flexibility in the use, participation and presentation of the LMS (Moodle) and other platforms such as Microsoft Teams and SharePoint (iv) provision of a supportive and intuitive learning environment through pre-course orientation to the online environment, and (v) an online learning space that accommodates both participating Fellows and instructional methods.

For course delivery, Universal Design of Instruction (UDI) was kept in mind. The lead instructional team planned carefully to accommodate the number of Fellows taking the course, which was up to 150 Fellows at one time. A purposeful effort was made to deliver the course to ensure Fellows had a successful

learning experience, and a 'growth mindset' was adopted. According to Taylor et al (2019, p. 133) "a syllabus that signals belongingness, growth mindset, communal goals, clear and positive expectations, and success-orientation assists in setting a welcoming tone that leads to greater student achievement and engagement". Instruction that is focused on growth mindset as opposed to a fixed mindset is success oriented.

To achieve success-oriented objectives for classroom instruction and execution of the syllabus, the following four principles were observed for synchronous, asynchronous, and collaborative environments of the digital space: (i) equal and flexible use of content and instruction (ii) simple, intuitive, and perceptible information and interaction, (iii) tolerance for error, and (iv) effort to create a com-

munity of learners through the instructional climate. The next sub-section focuses on the benefits of active learning and how it was understood and incorporated in NFDP-2020.

Active Learning

Active learning is a proven pedagogical approach to engage students in their learning process. Delivering active learning exercises requires the teacher to (a) provide a meaningful learning activity, (b) stimulate critical thinking, and (c) guide a student reflection on their learning. The intentional use of active

learning spans more than three decades, with the past two providing extensive research evidence of its effectiveness.

Figure 2 illustrates the kinds of benefits active learning offers. Most notably, active learning helps students achieve learning objectives. Further, active learning builds student success skills (e.g., communication, teamwork) and increases teacher engagement and enjoyment of teaching. A lesser-known benefit is that active learning also enhances equity and inclusion.

Figure 2. Active learning benefits the students (green shaded), teacher (blue), and classroom (red).

The literature is replete with scholarly work from educational psychology and learning science supporting the effectiveness of active learning for enhancing student learning compared to more passive techniques (e.g., Prince 2004; Michael 2006). Deslauriers et al. (2019) reinforced these previous findings with documented evidence of actual learning, in addition to students' perceived learning (Lumpkin et al. 2015). Importantly, active learning provides transferable skills, hones subject matter expertise, and builds self-reliance and independent learning capacity in students (Agarwal 2019), which aided the design and execution of NFDP-2020.

Less well known about active learning are the benefits for promoting equity and inclusion. Active learning helps underrepresented students in science, technology, engineering, and math (STEM) narrow the achievement gap (Lorenzo et al. 2006; Haak et al. 2011; Theobald et al. 2020). Although beneficial in many respects, a recent study noted the greater participation of men in voluntary responses after small-group discussions suggesting a need for instructors to facilitate active learning in intentional

ways to increase inclusive and equitable participation by all students (Aguillon et al. 2020). This understanding influenced the way the instructor team approached NFDP-2020 program development and delivery.

Due to the many benefits of active learning, the efficacy of the strategy for building teacher competencies (Virtanen et al. 2017), and the potential to support inclusion and equity, the instructor team adopted active learning for NFDP-2020. The team considered active learning pedagogy comprehensively – in planning, designing, and delivering NFDP-2020. Because of the shift to emergency online teaching, the instructors adapted the active learning pedagogy and activities to the online classroom environment of NFDP-2020. Transitioning to online challenged the use of active learning, leading the instructional team to carefully consider and incorporate the use of online collaborative tools, provide explicit directions for reflection, and train Assistant Mentors to help facilitate group activities.

With NFPD-2020 being a faculty development

program for new professors, the use of active learning addressed three broad goals. First, and foremost, active learning as a pedagogy helped NFDP Fellows achieve the program learning outcomes. Second, by providing numerous active learning examples, NFDP Fellows benefitted as teachers in training. And third, stressing equity and inclusion, active learning supported the program goal of promoting participation and success of underrepresented groups while providing opportunities for NFDP Fellows to be exposed to additional examples of ways to enhance equity and inclusion in their classrooms

and academic life.

With these goals in mind, NFDP incorporated numerous active learning techniques (see Figure 3 for examples organized into categories). Some exercises required adaptation for an online environment or needed the use of web-based educational technologies (e.g., Kahoot, Mentimeter, PollEverywhere). Microsoft Teams and collaboration tools (e.g., Google Doc, Perusall) facilitated formal and informal cooperative exercises.
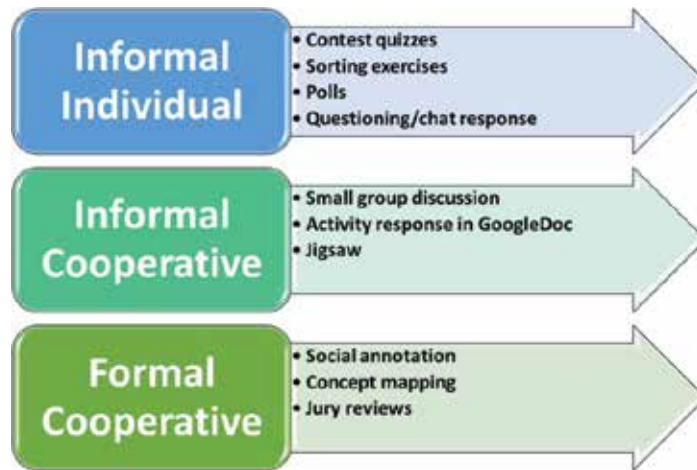

Figure 3. Active learning techniques used in NFDP-2020.

Active learning helped enhance equity and inclusion in NFDP-2020, and helped Fellows build capacity for enhancing equity and inclusion in their future classrooms. Administratively, the incorporation of interactive and social elements provided a way to track participation and quality of participation for assessment purposes. In design, NFDP-2020 employed active learning, adopted technologies to support active learning (e.g., Perusall), and included a module focused on improving capacity of Fellows for adopting active learning in their classrooms. In delivery, one example is a Reading Boot Camp session that included social reading, small group discussion, and a summary written report.

The assignment required Fellows to find, and reference, additional research-based sources of evidence of benefits of active learning for equity and inclusion to complement the assigned reading (Brame 2016). This activity introduced Fellows to the concept of how learning activities can be designed to enhance learning and to help achieve other outcomes, which was how we used the activity.

Throughout planning, designing, and executing NFDP-2020, the instructors found ways to use active learning to support the learning objectives and to enhance participation and success of underrepresented groups.

Reflecting on NFDP-2020, the use of active learning seemed to have increased engagement of Fellows. Unsolicited feedback from Fellows noted repeatedly the enthusiasm for the interactive features during seminars, the use of Perusall for social annotation, the building of relationships during the teamwork, and more. The effectiveness of active learning for promoting equity and inclusion in NFDP-2020 was less clear. There was no indicator of achieving this objective other than the one noted. The instructional team anticipated seeing stronger participation of females and this was observed in chat and in office hours. However, the translation of this to encourage Fellows to apply active learning to achieve equity and inclusion objectives at their institution remains to be observed in the future.

From offering NFDP-2020 online and with a large cohort (50-200 participants), we learned the importance of providing extra structure and clarity for active learning exercises. We also adapted ways to reinforce instructional content using office hours and other engagements to help Fellows view their teaching approach through a lens of equity and inclusion. The next sub-section describes the NFDP-2020 approaches to engaging Fellows in an online setting.

Engagement 'Outside' the Online Classroom
Training new faculty members to be effective teachers and researchers is fraught with several difficulties (Brownell and Tanner 2012). Doing so in an online setting amidst a pandemic introduced additional challenges, foremost of which were student engagement and developing community.

A significant body of research shows the importance of focused interaction between instructor and students in improving learning outcomes (Bjorklund et al. 2004; Lundberg and Schreiner 2004). For the NFDP, the large cohort size meant that it was not possible to respond to each Fellow's query during the daily webinar. As each cohort had been subdivided into sections, with each section led by an instructor and supported by Assistant Mentors, to fill this gap, a separate office hour was conducted daily for each section of the cohort.

Unlike typical office hour sessions, instructors were actively involved in developing a (loose) agenda for the session; these sessions can alternatively be categorized as daily mentoring sessions which were more supportive of equity and inclusion than the standard office hour model of 'come as you are and ask questions'. The primary goal for the office hour was to provide an opportunity to Fellows to ask any unanswered questions from the webinar, and to solicit feedback on the day's activities. The office hour was held after the end of the scheduled activities for the day, and attendance was voluntary.

On average, between 50-70% of Fellows attended the office hour sessions on any given day. This number was consistent across cohorts, although some variation across sections and cohorts were observed. Those that attended the office hour were usually present from start to finish. In addition to the stated primary goal, the office hour provided an opportunity to Fellows to practice public speaking in English. Multiple fellows identified this as a key benefit of the entire training. Fellows would occasionally

air grievances regarding other group members or bring up issues related to interpersonal conflicts. These office hours thus also served as a forum for instructors to model inclusivity and demonstrate conflict resolution approaches that Fellows could employ in their future careers. With each cohort comprising Fellows who completed their doctoral work in various countries and academic systems across the world, the office hour allowed for exchange of ideas and perspectives regarding pedagogical approaches.

To encourage Fellows to attend and participate actively in the office hour, efforts were made to involve them in logistics, which educational literature suggests can improve effectiveness of office hours (Griffin et al. 2014). The timings for the office hour were decided through a poll at the start of the Cohort, ensuring that a time-slot convenient for most was selected; this was especially important for female Fellows. Fellows were not forced to participate; the more introverted ones preferred to observe silently on the sidelines. To help cement behaviors early on in the Cohort, the first few office hours contained important information and were advertised more actively to improve attendance (Guerrero and Rod 2013). Adopting these approaches and contextualizing them allowed for the office hours to become an integral part of the training program.

Strong professional networks play an important role in early career success for faculty members, more so for women and underrepresented minorities (Ansmann et al. 2014; Yun et al. 2016). One of the goals for this Program was to provide opportunities for early career academics to build professional networks. This was especially important for Fellows who had completed their doctoral training outside of Pakistan. Each Fellow had been assigned a group using a methodology that attempted to maximize diversity and interdisciplinarity, and most activities in the Program were group-based. Thus, the strongest network developed by each Fellow was that of their assigned group members, with whom they interacted for several hours a day for an entire month, and their self-selected Research Team, with whom they collaborated on the Research Practice modules.

To allow for building connections beyond these groups, weekly 'socials' were organized where Fellows would be able to interact with peers in their Section. The goal for the Socials was to engage Fellows in fun activities as they networked with a

larger pool of Fellows. The NFDP period overlapped with the time when many parts of the country were under a lockdown due to COVID-19. In this context, these weekly socials also provided Fellows with an opportunity for social engagement. Thus, while participation was voluntary, these socials would be well attended (around 70-80% attendance).

Held on a Saturday evening, the socials comprised icebreakers, talent shows, and gameshows. These activities helped Fellows further hone their social skills in an online setting and express themselves beyond the confines of an academic setting. In the exit surveys conducted, most Fellows indicated that Socials were useful in helping them expand their new academic networks. An interesting follow-up would be to study how many of these academic networks are sustained once the training period has ended (Wolff and Moser 2009).

The following section focuses on how NFDP-2020 aimed for inclusivity through building competency in English using skill-building clinics.

Developing Global Competencies: Inclusivity through Communication in English
This section discusses the role of skill-building clinics in developing competencies in English for inclusivity through decolonizing of English for Academic Purpose (EAP) for social justice. The pre-assessment had revealed worrisome deficiencies in reading and writing in English and Fellows appeared to have little or no explicit awareness of research writing conventions and academic style. Their tacit understanding of writing and publishing conventions was through copying and writing with supervisors but not any direct instruction in EAP.

According to Keaton (2015), a focus on academic professionalism throughout a study term can "help students develop the skills, attitudes, and behaviors they need to chart successful courses as students and soon-to-be professionals". Taking a Critical EAP and academic literacies (AcLits) approach that sees literacy development as part of social practice allowed us to engage Fellows' diverse cultural backgrounds and identities to engender academic professionalism. To emphasize the all-pervasive presence of English language competencies and for greater affective engagement training and socialization with EAP, it was embedded within the various modules of the program.

Fellows also learnt the epistemological codes of

practice and the 'semantic waves' of meaning-making in their disciplines by being completely immersed in their disciplines while undertaking their doctoral research, without having conscious and explicit knowledge of how knowledge is created through writing in their discipline (Coffin & Donhue,2014). Most second language learners, because of this lack of explicit knowledge of structures, exhibit the tendency to copy rather than paraphrase that creates plagiarism issues.

In engendering disciplinary awareness, the 'academic socialization' model is the most prevalent in higher education institutions (HEIs). Implicit learning in academic socialization "functions as the institutional default model: students will 'pick up' writing as a part of their studies without any specific teaching or practice" (Lillis, 2006: 32). Prolonged exposure to the academic literacy practices of a discipline helps students to learn to write 'with time'. On the other hand, in the explicit more direct approach, students are taught features of specific academic genres 'specific clusters of linguistics features' are taught (Lillis, 2006: 31). According to Lea and Street, there are 'deep language, literacy and discourse issues involved in the institutional production and representation of meaning' (1998: 159) which may confuse students leaving them to discover for themselves the variation and diversity that exists in how knowledge and meaning is constructed through writing. The NFDP-2020 skill building clinics laid the foundations for this awareness.

An essential re-training in academic skills in English was attempted. We tried to blend the best of EAP with academic literacies (Tribble & Wingate, 2012) for socialization with the professional practice skills of expressing themselves in speech in micro-teaching, Pecha Kucha, the three-minute thesis (3MT) concept and in class and group participation during group work and in office hours. Online interaction tools and synchronous team meetings played a positive role in developing confidence in use of appropriate language.

Working on the principle of Krashen's Input Hypothesis in second language acquisition – Comprehensible Input i+1 – students' exposure to formal academic English in lectures and meetings was not made easy in any way for their consumption. This exposure to authentic language and feedback saw a significant improvement in all the four skills. One way of ensuring class participation was to give extensive writing practice on a given topic and

reacting and responding to other fellows. Fellows received detailed feedback on their work; perhaps they had never received such focused instruction on features of academic writing, particularly the emphasis on arguments and problem statements. They were not used to fine grained analysis of their writing by teachers or the emphasis on the identifying the gap and occupying the niche in research writing.

The module on scholarly writing focused on writing a journal article and publishing in a journal in their field. An analysis of why papers get rejected was undertaken, certain prevalent myths about publishing – that the paper must be entirely original or ground breaking – were debunked. According to Belcher (2019) editors reject articles mainly because there is no argument, and the role of argumentation in academic writing was seen to be an alien concept. One of the obstacles to publishing that was discovered was the expense involved and the concept of paying to get published was a new concept for people from Humanities and Social Science backgrounds. In sum, a certain demystification of the process of publishing was achieved.

A key issue in all HEIs is to improve student engagement and retention. In this scenario, the teachers have to be very skilled and personalize learning by focusing on skills that students see as valuable. These approaches were tethered to latest educational technology tools to produce synchronous and asynchronous content. Our challenge was to introduce change through our own practice with online teaching presenting a natural avenue for technological innovation. Therefore, under the gambit of change necessitated by the pandemic we managed to introduce some systemic, attitudinal and transformational changes without raising any undue alarm. This success could be attributed to our socially and culturally inclusive approach to literacy.

Discussion and Recommendations
The NFDP-2020 was an attempt to purposefully infuse the importance of equity and inclusion throughout its life cycle: from conception and planning to design, and delivery, across all elements. This paper focuses on four elements, the design framework, active learning, opportunities for engagement beyond the classroom, and an inclusive, practice-based approach to literacy in English. Diversity

of the instructional team – country, culture, gender, discipline, experience level, background, etc. – was critical to support a comprehensive view of inclusivity in program delivery and content.

From an administrative perspective, the program aimed to balance all-too-real issues of access and accessibility. The pandemic and lockdown affected people differently, depending on their homes, families, gender, socio-economic status, geographic location and numerous other factors. All of this was also true for the participants of this program. Online learning gave us voyeuristic glimpses into homes and lives. Unmuted microphones carried the sounds of crying babies, voices of members of the household, the clatter of kitchen utensils, or the sound of traffic into our spaces. We received countless requests for time off or deferral due to ill health, to look after unwell family members, or for a bereavement. These issues appeared even starker against the backdrop of a global pandemic, looming economic crises, and the desperate need for employment. They do not even begin to touch upon systemic inequity based on ethnic, religious or linguistic difference, which should be considered in all future programs.

The NFDP participant data show some very clear yet predictable patterns. For example, there were almost twice as many male participants as female, the largest number of participants was from the province of Punjab, and social sciences, arts and humanities make up only a handful of the degrees attained. Yet they also reveal the diversity inherent in the program in terms of regions represented, countries from where PhDs were earned, and disciplinary backgrounds. Given this diversity and unique global circumstances, the program was more like a meta-study in what it means to be a 'good' teacher in that it was a continuous balancing act between training to be better professors and following the best practices one is trying to teach.

It also aimed to balance the experience of learning/teaching online while simultaneously engaging with how to better manage online learning. Issues of internet connectivity and power outages plagued Fellows, instructors and administrators; yet there were many instances of great motivation and resilience to ensure they could continue to participate.

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[18]*"If a learner is at a stage 'i', then acquisition takes place when he/she is exposed to 'Comprehensible Input' that belongs to level 'i + 1'. Since not all of the learners can be at the same level of linguistic competence at the same time, Krashen suggests that natural communicative input is the key to designing a syllabus, ensuring in this way that each learner will receive some 'i + 1' input that is appropriate for his/her current stage of linguistic competence." https://www.sk.com.br/sk-krash-english.html*

NFDP-2020 built capacity for both online and in-person delivery, which supported (1) adaptability, or the confidence to adapt, (2) flexibility, or the willingness to consider it (3) an opportunity to gain empathy for future students in online classrooms (4) confidence to enter the profession with a set of skills that is considered vital in a post-COVID learning environment. The program has produced a great deal of data, from pre-assessment to final grades. Its analysis has the potential to reveal much more about ways in which it supported inclusivity and equity. A few questions that it could explore are: (1) Did the program help to close the gender gap in terms of performance from pre-assessment to the end of the program? (2) What were some trends in participation during the program (perhaps reviewing the 'chat' in Microsoft Teams)? (3) Which activities to support equity learned during the program were utilized most once Fellows were employed?

The NFDP-2020 experience teaches us that planning and design of instruction and engagement activities are ways to build capacity for promoting equity and inclusion in academia; there is a need to keep this as an explicit focus at all stages of the process.

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