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Exploring the Educational Transitions to Estimate Learning Loss Caused by Pandemic at Early Grades: Insights from Teachers

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Abstract:

The education sector across the country was severely affected by the Covid-19 pandemic. Despite implementing various initiatives to sustain the teaching and learning process, learners were struggling to keep up with acquiring the necessary knowledge and skills. This research investigated the learning loss of students caused by school transitions during the pandemic. The study employed a qualitative research design and developed an interview protocol. Primary school teachers were involved in this research to collect data. Thematic analysis was utilized to interpret the collected data. The findings of the study indicated that a significant number of participants had unsatisfactory teaching experiences due to the suspension of the teaching and learning processes resulting from school closures and resource limitations. The respondents expressed that the performance of students declined and they appeared less engaged; foundational subjects were badly affected; and consequently, students inclined to forget the basics of every subject. In terms of government initiatives, apart from establishing a TV channel for broadcasting study material during the pandemic, no further measures were taken to address the learning loss experienced by students.

Keywords: Covid-19, pandemic, learning loss, transitions, early grades, primary teachers

INTRODUCTION

The Covid-19 pandemic has had a serious impact on various aspects of human life, particularly in the field of education (Raaper & Brown, 2020). To prevent the spread of the virus, countries implemented measures such as social gathering restrictions and the closure of educational institutions. These closures forced authorities to explore alternative methods and initiatives to ensure the continuity of teaching and learning (Liguori & Winkler, 2020). Remote learning became the preferred solution during the pandemic, with educational institutions utilizing mediums such as

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television, the internet, and mobile phones, as well as MOOCs and Learning Management Systems (Almazova et al., 2020). However, the transition to online education has disproportionately affected students from less educated families, leading to significant learning disadvantages. Many students have experienced substantial learning loss, equivalent to the time they would have spent physically attending school, further widening the gap in learning outcomes (Putri, et al., 2020). Initiatives like tele-schools, Sabaq.pk, and Sabaq Muse have been introduced in Pakistan to facilitate the educational process, but the rate of online education continuation remains low. Radio schools have also been implemented in areas with limited access to tele-schools. The pandemic has exposed the weaknesses and shortcomings of Pakistan's education system, impacting millions of students across the country (Zahra, et al., 2020).

The pandemic has presented significant challenges to the education system, including school closures and a lack of resources for online learning. As a result, students are experiencing learning loss and reduced engagement during this period of transition. The transitions between educational institutions have further hindered student performance, and the absence of educational activities has led to a decline in basic knowledge. To address these issues, this research aims to explore the educational transitions caused by the pandemic and estimate the extent of learning loss among early grade students. The study will provide insights into the challenges faced during school transitions which affect students' learning.

The research has the following objectives: to explore the learning loss of students caused by the transition of schools during the Covid-19 pandemic, and; to investigate teachers' experiences in relation to implementing the initiatives introduced during Covid-19 to overcome the learning loss of students at early grades.

LITERATURE REVIEW

Teaching-Learning Process During Covid-19

Education system across the worldwide have been shifted to remote learning by utilizing online platforms to ensure teaching and learning (Marra et al., 2020). Learners face considerable challenges in adjusting to new changes and the transition to online learning presents numerous hurdles for educators, schools, and higher authorities (Malkawi et al., 2020).

Challenges to Education during Pandemic

During the Covid-19 pandemic, approximately 85% of educational institutions worldwide have adopted online teaching platforms, despite facing numerous challenges (Quraishi, et al., 2020). Online learning is often time-consuming for teachers moreover, evaluating students' progress and conducting formative assessments pose difficulties due to limited monitoring capabilities (Hermanto & Srimulyani, 2021). Insufficient training and lack of technological knowledge among teachers further complicate the process (Okoye, et al., 2021). Moreover, some complex subjects like mathematics and science are challenging to teach online (Engzell et al., 2021). Internet connectivity issues and poor-quality software add to the challenges faced by both teachers and students (Heng & Sol, 2021). Despite these difficulties, governments, policymakers, and educational officials have made significant efforts to control the outbreak and provide high-quality education through effective online programs (Nambiar, 2020).

Initiatives Taken by Educational Institutions

Governments worldwide have implemented distance learning programs through TV and radio broadcasts, as well as online platforms, to ensure education continuity during the pandemic (Vincent-Lancrin, 2022). Many OECD countries have developed online learning platforms, while also utilizing non-digital technologies like smartphones, TV, and radio in areas with limited online access (OECD, 2021). This multimodal infrastructure has enabled approximately 930 million students to receive education (Mishra, et al., 2020). Examples include Mexico's Telesecundaria and India's Digital Learning Enhancement Program (Ripani & Zucchetti, 2022). Other countries, such as Nagaland and Colombia, have used radio and podcasts, respectively, to deliver instructional material (Shanavas, et al., 2022). Some European countries have also established digital and non-digital programs for education provision during the pandemic, utilizing web portals and online applications to enhance the teaching-learning process (Vincent-Lancrin, et al, 2020).

Educational institutions immediately started launching the online teaching and learning processes. (Akuratiya, & Meddage, 2020). Schools have become the focal point for continuing education during the pandemic. These platforms helped schools to launch and manage these programs (Mishra, et al., 2020). In addition to LMS and MOOCs, schools utilize free and user-friendly applications such as Google Classroom, Microsoft Teams, Google Meet, Zoom, and Office 365 for video-conferencing and maintaining the teaching-learning process (Shuja, et al., 2020). They promote interactive learning through video-audio conferences/calls and paper-and-pencil assignments (Tang, et al., 2020). Many schools use WhatsApp groups to deliver instructional material (Tam & El-Azar, 2020).

Educational Transitions During Covid-19

The closure of schools and the subsequent shift to hybrid and distant learning models placed significant strain on both teachers and students (McCoy, et al., 2021). Initial studies drew upon previous data on educational transitions, such as learning loss during winter or summer breaks, as well as the impact of natural disasters like flooding and earthquakes leading to school closures to establish the consequences of learning loss in students (Dorn, et al., 2020).

The impact of the coronavirus on the education system can be observed through three primary avenues. Firstly, there has been a notable transition from traditional classroom-based learning to online learning methods. Secondly, there has been a significant rise in student dropouts. Lastly, a major consequence has been the delaying of exams and other related assessments (Eyles, et al., 2020). Despite the reopening of schools, many schools could not manage to shift to regular learning due to the threat of pandemic in their area (Zhongming et al., 2022).

Moreover, each level of schools e.g., primary, middle, and secondary both faced various types of challenges in their teaching and learning. The primary stage is foundational stage where kids need a lot attention and practical activities at schools, learning from peers and getting adjusted in school environment. Thus, those kids who were just enrolled in schools before the pandemic were directly promoted to next grade during online learning which caused a serious loss in their foundational skills. Similarly, those students who were at middle or secondary schools also promoted to next grade without achieving the required level of skills and knowledge. This seriously damaged the students' educational records and school effectiveness (Biswas & Debnath, 2020).

Estimating the Learning Loss due to Educational Transitions

The global education system has been profoundly affected by the COVID-19pandemic, impacting a staggering number of approximately 1.6 billion students worldwide (UNESCO, 2020). The closure of schools and educational institutions has resulted in significant knowledge and learning loss for students (Whitley, et al., 2021). The importance of formal education cannot be replaced as it fosters critical thinking and problem solving in students (Bao et al., 2020). Thus, the school closure left detrimental effects on student learning (Bao et al., 2020).

Many students face challenges with online platforms and lack complete access to the internet, further exacerbating the learning loss. Even short educational transitions can lead to substantial learning setbacks. Research indicates that the learning losses experienced during the pandemic are equivalent to approximately half a year's worth of learning (Tarkar, 2020). Authors Akseer et al. (2021) identified that around 40 million of pre-school kids dropped out globally during the pandemic. The shift to remote/online learning affect the whole education system badly and especially engaging students in learning which were the most crucial challenge during this time. Learning loss was already significantly higher between low-income and high-income countries and now it is rising more. On the other hand, millions of disadvantaged children do not have access to education (Basilaia & Kvavadze, 2020).

Research indicates that the Covid-19pandemic has had a significant impact on students' learning, particularly for those who have been promoted to the next grade level without physical attendance at school (Ricardo, 2020). Various international studies highlight the detrimental effects of the pandemic on students' academic progress, with the majority of researchers concluding that the changes in education during this period have had negative consequences (Robson, et al., 2020). However, one researcher suggests that in developed countries, parents' special attention to their children may have resulted in a learning process superior to traditional classroom education (Whitley, et al., 2021).

At the beginning of the academic year, there has been a substantial decline in students' skills, with an estimated loss of 18 percent, indicating that 66 percent of the learning achieved during online programs has been compromised (Hammerstein, et al., 2021). Educational transitions during this time have also had a considerable impact on children's education, as assessed through a statistical model (Fortuna, et al., 2020). Students with good access to online learning opportunities have performed well, while those with limited opportunities have faced greater challenges (Domingue, et al., 2021).

Loss in Basic Knowledge

International organizations like World Bank (2020) reported that many students have been left behind in their educational processes due to pandemic and this is mainly linked to lack of internet access and insufficient guidance on online platforms. Research and available data indicate that students face significant difficulties in comprehending key topics during online classes (Donnelly & Patrinos, 2021). Furthermore, an estimation suggests that students worldwide, particularly those from impoverished families in low-income countries who have struggled to acquire knowledge compared to their peers, may experience a staggering loss of approximately seventeen trillion dollars in future earnings (Moscoviz & Evans, 2022). This lack of foundational knowledge may have

long-lasting consequences, including potential failure in job exams and enduring financial hardships throughout their lives (Avanesian, 2021).

Loss in Basic Reading Skills

As mentioned elsewhere, students were suffering at early grades due to their weak foundational skills for example, reading skills, pronunciation, phonology, word recognition, vocabulary, and comprehension (Bao et al., 2020), this loss refers to a decline in students' reading development (Kaisara, & Bwalya, 2020). Primary-level students, especially ages 6-12, have experienced decreased focus and concentration (Sandhu & De Wolf, 2020). Limited-resource schools report difficulties in reading for grades 2-4 (World Bank, 2020). Similarly, grade-2 students in 2020 had a learning loss of 57-70% compared to pre-pandemic peers (Hevia, et al., 2022). A sample of grade-4 students had learning losses of 62-81% in one year (Brooks et al., 2020). A study found grade-2 students had 50-70% cognitive loss reading skills (Hermanto & Srimulyani, 2021).

Loss in Basic Concepts of Mathematics

Mathematics requires extensive practice and often involves multi-step processes (Contini et al., 2022). Some children can become bored with repetitive tasks, leading to discomfort with math (Haser et al., 2022). Errors in numbers can occur in writing, reading, and remembering (Contini et al., 2022). Online teaching has posed challenges, with students struggling to understand key math topics (Avanesian, et al., 2021). The pandemic has disrupted parental support and exacerbated math anxiety (Gore, et al., 2021). Remote teaching of math is challenging (Hevia, et al., 2022). The graph shows significant learning loss in math during educational transitions (Hevia, et al., 2022). Early-grade students may experience a lag in math proficiency (Soland, et al., 2020).

Loss in Basic Writing Skills

Writing skills play a crucial role in reading comprehension and knowledge demonstration (Graham & Hebert, 2011). Writing instruction enhances learning by improving content understanding (Stukalo & Simakhova, 2020). The loss of writing skills results in difficulties explaining concepts and decreased confidence in writing simple sentences (Schult, et al., 2022). The educational transitions during the pandemic have made it challenging for students to express their thoughts on paper (Yusuf & Ahmad, 2020). Studies have been conducted worldwide to assess the learning loss during school closures, including a focus on spelling skills (Education Endowment Foundation, 2020).

Increase Dropout Rate

The pandemic has caused a significant decline in students' motivation and desire to learn, leading to increased school dropouts (Donnelly & Patrinos, 2021). Financial constraints resulting from the lockdown have forced many students to leave or temporarily halt their studies (De Brouwer, et al., 2020). Lack of access to digital devices and internet connectivity has further hindered students' access to education, with homeschooling or online learning being inaccessible to a significant portion of students (De Porras, et al., 2021). The disruptions in education have also impacted teachers and staff, leading to increased absences and lower retention rates (Fortuna, et al., 2020). The crisis extends to physically disabled students who face challenges in remote learning (Domingue, et al., 2021). In Pakistan, a significant portion of the population lacks internet access

and digital literacy, exacerbating the educational divide (Munir, et al., 2021). The socioeconomic effects of the pandemic are projected to cause a million children in Pakistan to discontinue their education (Rehman & Khan, 2021).

Educational Initiatives by the Government of Pakistan

The Covid-19 pandemic prompted a sudden transition from physical teaching to online platforms in educational institutions in Pakistan (Ahmed, et al., 2020). However, limited connectivity and access to online platforms have hindered the promotion of online learning (Maqsood, et al., 2021). To address this, the Pakistani government has utilized television as an alternative medium for providing education, broadcasting instructional material for students from nursery to grade 12 (Moscoviz & Evans, 2022). Partnerships with Ed-Tech companies and the launch of programs like Tele School and Taleemabad have facilitated free access to educational content for students (Rasheed, et al., 2021). Tele-school initiative proved to be quite useful for early grades students. Moreover, the broadcasting of educational programs on television were also made available on websites, YouTube channels, and mobile apps to benefit maximum students (Noor, et al., 2020). The federal and provincial governments have collaborated with instructors and subject specialists to develop TV lessons and facilitate online teaching during the pandemic (Zahra, et al., 2020). Taleemabad, established by the Punjab government, is another initiative aimed at supporting the online teaching-learning process (Conto, et al., 2021).

Educational Transitions to Estimate Learning Loss in Pakistan

The government of Pakistan have implemented a complete closure of all educational institutions as an immediate response to the pandemic on March 14 and imposing restrictions on social gatherings (Noor, et al., 2020). The educational sector in Pakistan has been greatly impacted by the Covid-19 pandemic. As a result, children and their families are actively exploring alternative educational resources and methods (Iqbal, et al., 2022). This proactive response demonstrates the resilience and determination of the nation's young minds in overcoming the challenges posed by the pandemic (Basilaia & Kvavadze, 2020)

The Covid -19 pandemic led to the closure of educational institutions in Pakistan for approximately seven months, with intermittent periods of reopening and closure (New Data on Learning Loss in Pakistan, 2021). The sudden shift to online learning posed challenges due to limited connectivity and access to online platforms (Maqsood, et al., 2021). In response, the Pakistani government initiated the first radio school and online learning programs to minimize the disruption caused by the pandemic (Rehman & Khan, 2021). However, there is a need to further expand access to these tools and address the disparities between rural and urban areas (Salman, et al., 2020). The education system's weaknesses were exposed, and teachers faced difficulties in adapting to online education (Kuhfeld, et al., 2020). The Tele-school project aimed at ensuring continuity of education but faced challenges in delivering substantial results (Zahra, et al., 2020). Lack of internet access and familiarity with educational apps hindered students' ability to learn effectively at home (Basilaia & Kvavadze, 2020). The closure of educational centers and economic impacts of the pandemic contributed to a significant increase in the dropout rate, with gender disparities observed (Geven & Hasan, 2020).

RESEARCH METHODOLOGY

The main goal of this research was to investigate the extent of learning loss encountered by early grade students due to educational transitions during the pandemic outbreak. To gain a comprehensive understanding of teachers' perspectives on student learning loss, this study employed a qualitative approach. The study specifically targeted primary school teachers, particularly those responsible for grades 2 and 3. The purposive sampling technique was utilized to invite participants. Drawing from relevant literature, an interview guide was developed to explore the impact of educational transitions on student learning loss during the Covid-19 pandemic. Semi-structured interviews were conducted to collect data, which was subsequently analyzed using coding techniques. Thematic analysis was employed to generate the study's findings.

Population and Sampling

The target population for this study includes all primary schools in South Punjab. However, due to practical limitations, the accessible population from which data were collected consisted of conveniently selected primary school teachers. This research was conducted during pandemic thus it was difficult to visit schools due to closure. Thus, participants were contacted through phone calls. The researcher opted to include primary school teachers who were readily accessible and willing to participate in the study. Both male and female teachers from urban and rural areas schools were included in the sample, in total 40 primary school teachers were interviewed.

Measures

The researcher designed a semi-structured interview protocol for data collection. In order to assess the magnitude of learning loss of students encountered during the Covid-19 pandemic, the researcher asked some specific questions targeting educational transitions during pandemic. These questions were developed based on pertinent literature in the field. Following are sample questions from interview protocol: (a) Did you notice the change in students' performance before and after the school transitions during Covid-19? (b) When school was partially open how did you manage to teach during that time?

Data Collection

Data was gathered through semi-structured interviews, and all participants provided written informed consent prior to their participation. Participants were also informed about research objectives. The interviews were recorded after seeking permission from participants. All interviews were translated into English for analysis and comprehensive transcriptions of each interview were prepared. To ensure precision, each transcript was manually scrutinized to ensure its alignment with the original audio recording.

Data Analysis

During the research process, the interviewer diligently recorded detailed notes and audio recordings of the interviews conducted with the participants. Subsequently, the researcher transcribed the interviews to facilitate analysis. Thematic analysis was selected as the data analysis method, which entailed the creation of codes derived from the participants' responses and the identification of emerging themes based on these codes. The researcher employed critical analysis techniques to extract pertinent information and uncover emerging research themes.

RESULTS

The prime purpose of this study was to explore the learning loss of early grade students caused by school transitions during pandemic. Thematic analysis was conducted to identify the following results.

Teaching Experiences During the Pandemic

We asked the first interview question to know about their teaching experience during pandemic. In total 256 frequencies were occurred under this theme. We will present the most highlighted theme with supporting interview chunks. Following sub-themes were identified under this main theme. (a) Suspension of teaching learning process (24.5%); (b) Division of students into odd and even groups (22%); (c) Unsatisfactory teaching experience (20%).

Interruption in Teaching Learning Process

Suspension of teaching and learning process was found a big challenge for teachers (24.5%). Teachers feel completely paralyzed to contact their students during pandemic. They reported this challenge in the following way:

A respondent said: "During the COVID-19 period, there was a disruption in the teaching process. The abrupt closure of schools prevented us from providing students with appropriate homework and implementing alternative measures such as online teaching, primarily due to limited resources" (PF-13).

Another said: "During the closure of schools, we faced challenges in attending online classes. Due to limited resources, we were unable to provide online instruction to the students, resulting in the suspension of the teaching-learning process throughout the COVID-19 pandemic. Our experience during this period of complete school closure was unfavorable" (PM-16).

Teaching on Alternative Days

This is second most highlighted theme from interview transcriptions (22%). To curtail the spread of Covid-19, students were invited in groups. Students were divided in even and odd numbers. Teachers were directed to invite students in odd and even groups but they were unable to manage their work. Following respondents shared: “Upon the partial reopening of the school, we implemented an alternating schedule for the students. For instance, if a class had 20 students, ten would attend on one day, and the remaining ten would attend on the following day” (PM-01).

Another respondent explained: “During the partial reopening of schools, we adopted a straightforward approach of dividing our classes into two groups, namely Group A and Group B, with half of the students assigned to Group A and the remaining half assigned to Group B” (PF-10).

Unsatisfactory Teaching Experience

Most of the teachers were not satisfied with such type of teaching experience. They were unable to see their students and were not trained to teach them online. They were struggling to find out a proper solution to teach their students. Following interview chunks presented their experiences: “The teaching experience was not good due to the absence of students. We encountered numerous challenges while trying to teach during the period of school closure” (PM-05).”

One more participant shared: “Our teaching experience was extremely challenging. The region we are situated in lacks development and infrastructure. Regrettably, the students in our area do not have access to the internet, making it impossible to provide instruction during the COVID-19 period” (PF-23).

Students’ Performance Before and After Covid-19

We asked teachers to share if their students’ performance decreased after school closure.

In response to this question five themes were found with 214 codes. (a) Performance decreased and become dull (59%); (b) Learning of basic subjects got affected (25%).

Performance of Students During School Closure

"This is the most highlighted theme in the interview transcripts (34%). The majority of the respondents shared that the students' performance significantly declined during the school closure. What is particularly important is that these students were in their early grades, which means their foundational knowledge was affected due to their time away from school. Some students had blanked out completely and had forgotten all the material they had previously learned."

A respondent reported: “There was a substantial disparity in the performance of students before and after the pandemic. They exhibited a significant decline in their attentiveness and enthusiasm, becoming disengaged and lackluster. The students' level of dedication to their studies was notably diminished compared to how it was prior to the pandemic” (PF-21).

Participants reported: “Upon the students' return from vacation, it was evident that they had forgotten even the most fundamental knowledge. This was observed even in the third grade, where they struggled to comprehend concepts that had been covered in earlier grades. As a result, their overall engagement and enthusiasm for learning diminished” (PM-19).

Learning of Basic Subjects Got Affected

Some of the respondents shared that early grade students forgot the basics of their subject which is a great loss of their learning (25%). The knowledge of basic subjects like English, Mathematics and Sciences was badly got affected due to school closure, students even forgot the basic formation of English and Urdu. Respondents shared the following: “Every subject was adversely impacted. Even in Urdu subjects, the students would forget the words for dictation and make grammatical errors. They struggled with proper pronunciation and accurate spelling of words” (PM-36).

A respondent stated: “Students encountered greater difficulty with English, math, and science subjects. They had completely forgotten the concepts and knowledge related to these subjects. In particular, they faced challenges in reading English, and when mathematical problems contained English statements, it became difficult for them to read and comprehend the questions” (PF-38).

Initiatives to Cover Learning Loss

Teachers were asked to share strategies employed to reduce the students’ learning loss when they were back to schools. 145 codes were identified in relation to this question. Four themes were extracted from interview transcripts. Two major themes are reported. (a) Activity-based learning/instruction (83%); (b) Start with teaching basic knowledge (29%).

Activity-based Learning/Instruction

This is most occurred theme in interview transcripts (83%). Teacher shared that after realizing the students' performance after the reopening of schools we planned certain strategies to engage students in learning e.g., problem solving, activity-based learning, independent reading etc. Respondents shared: "We employed a teaching approach where we instructed children on the pronunciation of Urdu words by providing numerous examples. The words were written on the board, and the students would repeat them aloud. To enhance their writing skills, we conducted dictation exercises where we provided them with words to write down" (PF-20).

Another participant said: "Our current emphasis is on enhancing their language and reading skills through various activities. These activities include reading paragraphs from books line by line and engaging in word activities, where the teacher pronounces a word and the students repeat the word in unison" (PF-31).

Focusing on Developing Basic Knowledge

Many teachers shared that they are now focusing on the basic knowledge of students (29%) as they have forgot the foundational knowledge and basic skills. They shared in the following way:

> "We initiated the teaching process by focusing on fundamental skills, such as teaching them how to form words using letters. We commenced with teaching them basic counting skills, followed by multiplication tables. The teacher would write the tables on the whiteboard, and the children would repeat them. Subsequently, we progressed to teaching them addition and subtraction, providing examples for better comprehension" (PM-27).

Another respondent said: "We encouraged the children to study Rahim Bakhsh's Urdu Qaida, which served as a foundational tool for learning Urdu. Our focus was on imparting the fundamental concepts to the children. We commenced with teaching multiplication tables in mathematics, along with basic addition. Through this approach, we ensured a comprehensive understanding of the fundamentals while also introducing new concepts" (PM-23).

Initiatives by the Government to Cover Learning Loss Reduce

Teachers were asked to share the initiatives by the government to cover the learning loss of students. A total of 94 codes were identified in the interview transcripts mentioning the government initiative in relation to reduce learning loss. Three sub-themes were found (a) Smart syllabus given by government (49%); (b) Launching a TV channel to deliver lectures during the pandemic (25%).

Smart Syllabus Introduced by Government

Teachers shared that government of Punjab introduced a smart syllabus for students who remained away from school during pandemic outbreak. This mean they shorten the syllabus and only kept the important topics as part of syllabus. A teacher shared: "The government implemented a smart syllabus, aiming to cover the curriculum. Furthermore, the government advised us to teach students in groups to address any knowledge gaps they may have and to incorporate innovative and creative activities into our teaching methods" (PF-11).

A respondent reported: "The government facilitated the promotion of students to the next class. Additionally, they introduced a smart syllabus, which allowed us to focus solely on the chapters and topics outlined in the smart syllabus, ensuring their significance and relevance" (PF-12).

Launching TV Channel to Reduce Learning Loss

Some of the teachers shared that the TV channel was quite helpful when schools were closed (25%). Following teachers shared their responses in relation to this sub-themes: "During the Corona pandemic, the government established a television channel with the intention of enabling students to continue their studies at homes" (PF-40).

DISCUSSION

The primary objective of this research study was to investigate the impact of educational transitions on the learning loss experienced by early grade students, as perceived by teachers. The findings of this study confirmed that school closures during the pandemic resulted in significant learning loss among early grade students. The results revealed that teachers encountered numerous difficulties in continuing the teaching and learning process during school closures. The lack of resources led to the suspension of the teaching and learning process, resulting in an unsatisfactory teaching experience. These findings were consistent with a study conducted by Ayaz, et al. (2022) who found that students in early grades experienced a noticeable decline in learning. The majority of teachers were unable to conduct online classes due to their limited familiarity with technology and lack of resources. This finding aligns with the research conducted by Anwar, et al. (2020) they identified the same challenges of teachers in their research conducted during Covid-19 pandemic in Pakistan.

The school closures and educational transitions resulted in a decrease in students' performance, this finding is in accordance with the study results of Idara-e-Taleem-o-Aagahi (2021) who highlighted the significant learning loss among primary-level students as a consequence of school closures. The educational transitions also led to students forgetting the fundamentals of various subjects, and their overall learning abilities were affected. This finding is consistent with the research conducted by Nasir and Hameed (2021) who examined the impact of Covid-19 on students' learning. Our study found that students' foundational knowledge got affected badly during school closure which is corroborating with the study findings of Adnan and Anwar (2020) who conducted research to map the students' knowledge in reading and writing in Urdu and English during pandemic outbreak.

LIMITATIONS AND RECOMMENDATIONS

The aim of this study was to investigate the educational transitions and estimate the learning loss of early grades students experienced during pandemic outbreak. While the study yielded valuable results, it is important to acknowledge its limitations. The limitations and corresponding recommendations are outlined below: first, the research design employed in this study was qualitative, which comes with inherent limitations. Qualitative research is constrained by a specific set of questions, and the responses provided by participants are subjective. To complement the findings of this study, future research could incorporate quantitative methods to obtain a more comprehensive understanding of the learning loss experienced by students. Second, another

limitation of this study is that it primarily focused on gathering insights from teachers. While teachers' perspectives are valuable, it would be beneficial to include students' viewpoints as well. Collecting data directly from students can provide a more holistic understanding of the learning loss and its impact on their educational experiences. Third, it is important to note that the data for this study was collected solely through interviews. While interviews provide valuable qualitative insights, relying solely on this method may limit the breadth and depth of data collected. Future research could consider incorporating additional data collection methods, such as observations or surveys, to gain a more comprehensive understanding of the educational transitions and learning loss. Furthermore, the school education department should take proactive measures to equip their teachers for effective teaching in emergency situations. Drawing insights from exemplary organizations, they should develop an online education system and integrate it into regular school activities. This approach will help both teachers and students become accustomed to learning through online platforms, ensuring its continuity during times of crisis.

CONCLUSION

The findings of this study shed light on the learning loss experienced by early grade students as a result of school transitions during the pandemic. Following conclusions can be drawn from the findings: firstly, the interruption in the teaching and learning process emerged as a major challenge for teachers. Secondly, the implementation of teaching on alternative days was highlighted as a strategy to curtail the spread of Covid-19. However, teachers faced difficulties in managing the organization of classes when dividing students into odd and even groups. Furthermore, teachers expressed their dissatisfaction with the teaching experience during the pandemic. They were unable to see their students and lacked training to effectively teach online. Regarding students' performance, the majority of respondents reported a significant decline after the school closure. The impact was particularly notable in their foundational knowledge, with some students forgetting previously learned material and struggling to comprehend concepts from earlier grades. To address the learning loss, teachers employed various strategies. Activity-based learning/instruction emerged as the most prevalent theme, with teachers focusing on engaging students through problem-solving, activity-based learning, and independent reading. The government implemented initiatives to mitigate learning loss, such as introducing a smart syllabus and launched a television channel to facilitate remote learning when schools were closed.

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