

Exploring the Mechanism Adopted by Schools to Deal with Disrupted Learning Challenges

Sawera Saddique¹, Shaista Khalid² and Dr. Ahmad Bilal Cheema³

Abstract

This study explores the mechanism adopted by schools to deal with disrupted learning challenges during unexpected closures. It took a particular focus on the mechanism of learning continuity during crisis by the head teachers and teachers of the public and the private secondary schools. An exploratory qualitative research design was adopted. Data were collected through semi-structured interviews and field notes from 36 participants, including 12 head teachers and 24 teachers from 12 public and private secondary schools in Sargodha district. The participants were chosen by using convenience sampling. The data collected were subjected to the manual thematic analysis to determine patterns and variation of responses by the participants. The results were that the schools tended to employ informal and reactive processes when dealing with disrupted learning. Communication through WhatsApp was the most common strategy that was reported as used in the process of keeping in touch with students with structured online learning systems being used infrequently. It was also revealed in the findings that formal crisis management policies, systematic assessment practices, teacher training and psychosocial support systems were lacking. The situation was more restrained in the public schools as they had fewer digital resources and the private schools were even slightly better digital prepared, but still, they lacked the well-structured crisis response systems. The study concludes that secondary schools require formal guidelines, improved digital infrastructure, professional training for teachers, and institutional crisis preparedness systems to ensure learning continuity during future disruptions.

Keywords: Disrupted learning challenges, school closures, learning continuity mechanisms, crisis management in education, secondary schools, qualitative research

¹⁻²⁻³Institute of Education, University of Sargodha – Pakistan

Introduction

In Pakistan, the school education system is undergoing widespread disruptions that adversely influence the learning results of the students, the amount of time allocated to classroom instruction, instructor readiness, and curriculum coverage (Bozkurt et al., 2020; UNICEF, 2021; World Bank et al., 2021). These interferences are causing learning losses, decreased student interest, increased dropout, and achievement gaps (Harmey & Moss, 2023; (Tan et al., 2025). Despite the fact that Punjab has a better enrolment, the learning achievement has not increased (ASER Pakistan, 2022). Learning become more difficult to achieve when schools are closed because of pandemics, natural calamities, climate disasters, and socio-political (Mazrekaj & De Witte, 2024); Khan & Hussain, 2023). The majority of schools cannot maintain the teaching due to a lack of digital devices, training of teachers, and interaction with parents, the lack of monitoring tools, and no established recovery strategies in the case of these closures (Hassan, 2025). As a result of these challenges, schools were forced to react to accommodate education during disruptions (Lotrecchiano & Tidmore, 2020). At this point, it matters not only the organizational situation but also the crises, as well as the procedural mechanism (Chebbi & Pündrich, 2015).

Considering the past researches, the school education system is experiencing a lot of learning interferences. The practice of secondary schools in responding to disrupted learning situations has limited empirical evidence, even though national guidelines also place much emphasis on continuity of education in case of crisis. The literature on the topic addresses the outcomes of higher education and online learning, but school-level practices in the face of unexpectedly imposed closures, particularly in secondary schools, are under-researched. Consequently, it is found that there is no context specific knowledge of mechanisms used by head teachers and teachers to deal with disrupted learning issues in instances of unanticipated closing of schools. This gap demonstrates the need to explore the mechanisms that are implemented to guarantee learning continuity through crisis in the secondary schools in Sargodha district.

Review of the Literature

The world has experienced an increasing number of crises in the education system due to pandemics, natural disasters, political instabilities, and the environmental crisis. These disruptions usually result in short-term or long-term school shutdowns

and disrupt the normal teaching-learning process and the academic development of students. It has been found out that sudden disruptions in education are some of the factors that cause learning deprivation, reduced student interest, and slower curriculum progression (Betthauser et al., 2023; OECD, 2021). Schools experience difficulties in sustaining instructional continuity during times of crisis with poor levels of technological infrastructure, ineffective teacher preparation and ineffective institutional support systems.

The COVID-19 pandemic has demonstrated the weaknesses of education systems in different parts of the world especially. Being compelled by the necessity to teach in emergency conditions, a wide range of schools had to implement the idea of remote teaching through the usage of online learning methods, virtual classes, and online communication (UNESCO, 2020). Nevertheless, these strategies were quite different in effectiveness, and they were influenced by the institutional capacity, support by the leadership, and availability of technological resources. Inequality between the government and private schools in developing nations like Pakistan also made the adoption of alternative learning strategies difficult when schools shut down. Studies have found that the technological base and administrative flexibility of private schools are usually relatively higher, whereas the public schools have relatively limited resources and institutional opportunities at their disposal (World Bank, 2022).

In this regard, school sustainability to learning throughout disruptions is highly dependent on the processes that schools leaders and teachers have embraced. The mechanisms can involve flexible teaching process, use of technologies, teacher collaboration, and participation in communication with students and parents. Knowledge of the reaction of schools to disrupted learning is thus vital to enhancing resilience of the system of education.

Theoretical Framework

This study is informed by leadership Contingency Opportunity Theory and Resilience Theory. These framework helps explain how educational institutions respond to crises and maintain continuity of learning.

The Leadership Contingency Opportunity Theory: Leadership Contingency Opportunity Theory is a development of previous contingency theories of

leadership, which holds that leadership effectiveness is a matter of leadership behavior and the interaction between this behavior and situational conditions (Fiedler, 1967; House, 1971). This view holds that no one leadership style is universal. Rather, leaders need to change their strategies depending on the needs of particular situations.

Pandemic or natural disasters, as examples of crises that occur in a learning institution, are complex and unpredictable situations that need flexible and adaptive leadership. The school leaders have to address behaviors that are emerging and at the same time make sure that the organizational functions remain intact. According to the contingency perspective, institutional resources, policy environments, stakeholder expectations, and organizational capacity are some of the factors that shape the decisions made by leaders (Northouse, 2022; Yukl, 2013).

The studies that have been carried out in the conditions of the COVID-19 pandemic emphasize the importance of adaptive school leadership in continuity of learning. The research shows that school leaders with flexible approaches, fostering teamwork among the teachers, and exhibiting the adoption of digital technologies were more capable of maintaining the instructional processes during school shutdowns (Hallinger and Wang, 2020; Harris and Jones, 2020). On this note, there are also opportunities that crises can bring about in terms of innovation, collaboration, and new instructional practices.

The Leadership Contingency Opportunity Theory is an appropriate theoretical approach to take into consideration in the context of the proposed study when exploring how head teachers and teachers change their leadership and instructional styles when facing disrupted learning issues.

Resilience Theory: Resilience Theory is another theory that can be used to interpret the response of educational institutions to adversity. Resilience is an attribute that is based on psychology and systems theory and implies the ability of people, institutions, or systems to adjust, recuperate, and proceed to operate successfully in unfavorable situations (Masten, 2001; Ungar, 2011).

Resilience is not considered to be a trait in education, but a dynamic process that depends on the interactions between people, institutions as well as the environment. The schools operating in uncertain environments need to come up

with adaptive capacities that enable them to continue with learning activities despite disruptions (Bronfenbrenner, 1979; Masten and Obradovic, 2008).

Adaptive instructional strategies, good social support networks, resource availability, and supportive leadership practices are some of the key elements of resilience in education. In the presence of such protective factors, schools can better maximize the reduction of learning loss and keep students engaged during crisis (Ungar, 2018).

The studies, carried out in the course of the COVID-19 pandemic, indicate that school organizations that were more resilient could more easily adapt to other forms of instruction, such as online learning and blended teaching methods (Hargreaves and Fullan, 2020; Reimers and Schleicher, 2020). Such schools tended to depend on cooperative problem solving by the teachers, loose curriculum development and effective communication with the students and parents.

Resilience Theory in this research assists in the explanation of the development of adaptive mechanisms in the schools that allow them to handle the disrupted learning and continue with the educational activities as the schools are closed due to unforeseen events.

Mechanisms for Maintaining Learning Continuity

According to the literature, there are a number of mechanisms which schools use in relation to disrupted learning. Instructional adaptation is one of them, in which teachers adjust instructional methods to fit new learning settings. With the school closures, several teachers embraced new methods of teaching including internet-based learning, video-based lectures, and computer-based learning resources to provide continuity (UNESCO, 2020).

The other important mechanism is that of digital technologies integration. The use of communication tools like WhatsApp, Zoom, and learning management system became very popular during the times of remote learning between teachers and students. The success of these technological solutions is however subject to access and use of digital devices, internet connection and training of teachers.

The role of leadership and administrative support is also important in the management of disrupted learning. School leaders should organize the response of the institutions, create collaboration of teachers, and make sure that the teaching process proceeds even in case of the operational problems. Proper leadership is capable of assisting schools in coming up with coordinated approaches to deal with crisis situations and continuity in learning.

Next to this, the preparation and professional growth of teachers are also major factors contributing to the quality of crisis response. Digitally competent flexible pedagogically equipped teachers would be better prepared to respond to evolving teaching factors.

And, community and parental support also help the success of learning continuity. In the cases of school closures, the active communication between schools, parents, and students is needed to ensure the motivation of students and their engagement in learning processes.

Public and Private School Comparisons

Previous studies suggest that significant differences often exist between public and private schools in their ability to manage disrupted learning. Private schools generally possess greater institutional flexibility, stronger administrative autonomy, and relatively better access to technological resources. All these could allow the private schools to adopt different instructional strategies faster in times of crisis. Public schools, by contrast, generally have more rigid bureaucracies and possibly have more limitations with regard to resources access, technological accessibility, and access to teacher training. These limitations may influence their ability to react efficiently to undesirable interferences.

Nonetheless, there is limited empirical data of comparing the processes embraced by the government and privatized schools in the developing world especially at the school level.

Despite the increasing literature that has studied the effect of disrupted learning on education systems, most studies are centered on large-scale policy actions or in higher education. Little research has been done examining the response of school-level actors especially head teachers and teachers to learning disruption in

secondary schools. Moreover, there have been minimal studies that compare the mechanisms that are embraced by both the public and the private schools in developing nations like Pakistan.

As more schools are closed due to pandemics, environmental disasters, and socio-political problems, context-specific studies into the ways in which schools can effectively address the disrupted learning problems are required. This way, the paper shall attempt to explore the mechanisms that have been modified by both the government and non-government secondary schools in Punjab, Pakistan, to ensure continuity of education at the schools when they are abruptly forced to close down.

Methodology

An exploratory qualitative research design was adopted. Data were collected through semi-structured interviews from 36 participants, including 12 head teachers and 24 teachers from 12 public and private secondary schools in Sargodha district. In addition to interviews, the researcher maintained, field notes during each school visit to record contextual details, non-verbal cues, and reflective observations relevant to disrupted learning practices. Participants were selected through convenience sampling.

The interview guide included questions related to causes of school closures, challenges faced during disruptions, strategies used to continue teaching, availability of institutional guidelines, and teacher training and professional support. The collected data were analyzed using manual thematic analysis. Interview transcripts were carefully reviewed and coded to identify recurring themes and patterns in participants' responses. The analysis focused on identifying similarities and differences in the mechanisms adopted by public and private schools to address disrupted learning challenges.

This study sought to answer the following questions:

- How do head teachers of public schools manage disrupted learning challenges?
- How do head teachers of private schools manage disrupted learning challenges?
- How do teachers of public schools support students in coping with disrupted learning challenges?

- How do teachers of private schools support students in coping with disrupted learning challenges?

Data Analysis and Results

Data analysis and interpretation are given below.

Table 4.1: Mechanisms Adopted by Head Teachers of Public and Private Schools During Learning Disruptions

Theme	Public School Head Teachers (participants)	Private School Head Teachers (participants)
Crises causing school closures	Smog (p1,p2,p3,p5); COVID-19 (p1,p2,p3,p4,p5); Extreme heat (p1,p2,p3,p5); Extreme cold (p1,p2,p3,p5); Floods (p1,p2,p4,p5,p6); War/Pak-India conflict (p1,p3,p4,p5,p6); Strikes (p2); Terrorist threats (p5); Earthquake (p5)	Smog (ip,2p,3p,4p,5p,6p); COVID-19 (ip,2p,4p,5p,6p); Extreme heat/cold (ip,2p); Floods (2p,4p); War/Pak-India tension (ip,2p,4p); Strikes/protests (ip,2p,3p,4p); Terrorist threats (2p,6p); Eye flu (2p)
Challenges during closures	Teacher salary issue (p1,p2,p5); Fee collection issue (p1,p2,p4,p5); Learning loss (p1,p2,p3,p4,p5); Routine disturbance (p1,p2,p3,p4,p5); Syllabus difficulty (p1,p2,p3,p4,p6); No online access (p3,p5); Weak students left behind (p3,p5); Parents not supportive (p1,p2)	Communication barriers (ip,2p,4p); Learning loss (ip,2p,3p,4p,5p,6p); Routine disturbance (ip,3p,4p,5p,6p); Syllabus incomplete (3p,4p); No online access (ip,3p,4p,6p); Teachers unprepared (5p); Socioeconomic constraints (ip,2p,4p)
Learning continuity measures	WhatsApp groups (p1,p2,p3,p4,p5); One-teacher-one-class (p5); Home tuition (p5); Recorded lectures (p2); PDF sharing (p1,p3,p4,p5); Zoom classes (p1,p4,p6)	WhatsApp groups (2p,3p,4p,5p,6p); Revision/homework (ip,3p,4p); Recorded lectures (2p); Voice notes (2p); No system (ip); Taleem Ghar/TV (6p)
Official guidelines	Mostly verbal instructions (p1,p2,p3,p6); No written policy (p1,p2,p3,p4,p5,p6)	Yes (2p,4p,6p); No (ip,3p,5p)
Training provided	Mostly no training (p1,p2,p3,p5,p6); one school had prior training (p4)	No training (ip-6p)
Teacher support initiatives	WhatsApp communication (p1,p2,p3,p4); No formal initiative (p1,p3,p4,p6); One-teacher-one-class (p5); Practice activities (p3,p4,p5)	WhatsApp communication (2p,3p,4p,5p,6p); Meetings (4p); None (ip)
Student progress tracking	No assessment (p1,p2,p4,p5); WhatsApp questioning (p2,p3); Online exam (p6); Worksheets (p3,p4)	No assessment (ip,3p); Learn at home (2p,6p); Oral questioning (2p); Phone follow-up (4p); Worksheets (5p,6p)
Teacher monitoring	Mostly verbal monitoring via WhatsApp (p1,p2,p3,p4); No monitoring (p3,p5); Platform monitoring (p6)	No monitoring (ip,3p,4p); Meetings (4p); WhatsApp follow-up (2p,5p,6p)
Emotional support for students	No formal counselling (p1,p2,p3,p4,p5); Informal guidance (p6)	No formal counselling (ip,3p,4p,6p); Informal guidance (2p,5p)
ICT platforms used	WhatsApp (p1,p2,p3,p4,p6); Zoom + WhatsApp (p1,p6); No ICT system (p5)	WhatsApp (2p,3p,4p,5p); None (ip); Taleem Ghar/TV (6p)

The findings from the analysis of head teachers of public schools indicate frequent school closures occurred due to smog, pandemic, political unrest, and extreme weather conditions. Academic disruption and loss of learning were the most

commonly reported issues. The majority of the participants depended on WhatsApp as the source of communication with each other and others said that learning processes were stopped entirely. The data also show that during unexpected closures, there were no formal guidelines, structure training, and systematic assessment mechanisms. In this findings, head teachers of public schools developed rather informal and reactive mechanisms to deal with the disrupted learning challenges in case of crisis.

The outcomes of the analysis of private head teachers prove the Learning continuity mechanisms to be minimal and mostly informal, run by the informal communication system on the base of WhatsApp in comparison with the organized digital systems. The economic strains offered by the collection of fees and the teacher salaries are the particular troubles of the private schools as opposed to the government schools. Policy and training lapses are numerous and no school has a written guideline on how they can deal with academic disruptions. The issues of learning loss, disruption of the routine, and the lack of the syllabus were universal in all schools. Evaluation and backup systems as well as surveillance are weak and sporadic. The digital preparedness of the private schools, however, is somewhat better, and the schools do not possess formal ICT platforms. The mechanism of the finders of the private schools has the ability to tackle the issue of disrupted learning challenge during crisis situation, which is not strong still a bit higher than that of the public schools.

Table 4.2: Mechanisms Adopted by Teachers of Public and Private Schools During Learning Disruptions

Theme	Private School Teachers (participants)	Public School Teachers (participants)
Crises causing closures	Not specifically reported separately by private teachers	Smog (1p,2p,3p,4p,7p,8p,11p); COVID-19/Corona (1p,2p,3p,4p,5p,6p,8p,10p,11p,12p); Extreme heat/cold (1p,2p,3p,4p,5p,6p,11p); Floods (1p,3p,4p,5p); War/Pakistan-India tension (1p,2p,3p,4p,5p,6p,8p,11p); Strikes/Protests (1p,2p,7p,8p,11p); Eye flu (1p); Earthquake (6p)
Major challenges	Communication barriers (P1,P2,P3,P7,P10,P4,P11); Learning loss (P1,P2,P3,P4,P5,P6,P7,P8,P9,P10,P11,P12); Syllabus incomplete (P2,P3,P4,P6,P7,P8,P9,P10,P12); Monitoring difficulty (P1,P3,P4,P6,P11,P12); Family socioeconomic constraints (P8,P9); Poor	Exams delay (1p,4p,11p); Learning loss (1p,2p,3p,4p,5p,6p,7p,8p,11p,12p); Routine disturbance (1p,2p,3p,4p,5p,7p,8p,11p); Syllabus incomplete (3p,4p,6p,12p); Students not responding/low participation (3p,4p,5p,7p,8p); Difficulty contacting parents (1p,7p,8p,11p);

	engagement/carelessness (P1,P2,P3,P4,P5,P7,P8,P9,P11)	Management disrupted (3p,4p); Dropout increase (12p)
Learning continuity measures	WhatsApp groups (P1,P2,P3,P4,P6,P7,P8,P9,P10,P11,P12); Zoom classes (P1,P2,P12); Home-based activities (P1,P2,P3,P4,P6); Recorded lectures (P2,P6,P7); Teacher-parent contact (P1,P2,P6,P10); No system available/study stopped (P5,P8,P9,P10,P11)	WhatsApp groups (2p,3p,4p,5p,7p,8p,9p,10p,12p); Revision/homework only (1p,3p,7p,8p,11p); Online classes/Zoom (9p,12p); No system available/study stopped (1p,5p,6p,11p)
Guidelines received	Yes by principal only (P1,P3,P4,P6,P11); No (P1,P2,P3,P4,P5,P6,P7,P8,P9,P10,P11)	Some guidance during COVID only (2p,6p,9p,12p); No formal guidelines (1p,3p,4p,5p,7p,8p,10p,11p)
Training provided	No training provided (P3,P4,P5,P6,P8,P9,P10,P11); Yes provided (P1,P2,P12)	No training provided (1p,2p,3p,4p,5p,6p,7p,8p,10p,11p); Yes provided (9p,12p)
Formal measures/initiatives	WhatsApp communication (P2,P3,P7,P9,P10,P12); Meetings with teachers/parents (P1,P2,P6,P10); No formal measures/study stopped (P1,P3,P4,P5,P7,P8,P9,P11); Online structured exam (P12)	No formal measures (1p,3p,4p,5p,6p,7p,8p,10p,11p); Yes – academy timings or proactive guidelines (2p,9p,12p)
Student progress tracking	No assessment at all (P3,P4,P5,P7,P8,P9,P11); Asking to learn at home (P1,P2,P6,P10); Oral questioning in WhatsApp groups (P2,P12); Assignments/quizzes (P2,P12)	No assessment at all (1p,3p,4p,5p,6p,11p); WhatsApp test (2p,3p,7p,8p,9p,10p,12p); Oral questioning (2p,7p,8p)
Emotional support for students	No formal support/counselling (P4,P5,P6,P7,P8,P9,P11); Informal guidance (P1,P2,P3,P12)	No formal support/counselling (1p,3p,4p,5p,6p,7p,11p); Informal guidance (2p,8p,9p,10p,12p)
ICT platforms used	WhatsApp only (P1,P2,P3,P4,P6,P7,P8,P9,P10,P12); No ICT system (P5,P8,P9,P11); Zoom (P1,P2,P12)	WhatsApp only (2p,3p,4p,5p,6p,7p,8p,9p,10p,11p,12p); Zoom (8p,9p,10p); No ICT system (1p,11p); Taleem Ghar/TV channels (8p)

The analysis of responses of the teachers in the public schools shows that the government schools are highly pressured to ensure continuity in learning during the crises. The information proves that the system of structured learning, access programs on technological use, formal instructions, and training sessions are needed in the work of the public schools to address disruptions.

The analysis of private schools' teachers indicates that there were definite trends in the way the public schools were reacting to unplanned closures. The patterns of frequency all testify to the dominance of low-tech, informal, teacher-centric approaches in schools, with system-level preparedness, standardized assessment practice, psychological support, and investment in ICT being low or nonexistent.

Comparison of Mechanisms Adopted by Public and Private Schools during Crises

Table 4.3: Comparison of Mechanisms Adopted by Public and Private Schools During Learning Disruptions

Mechanisms for Continuity of Learning	Private Schools	Public Schools
Communication with students	WhatsApp widely used; some schools attempted limited online interaction	Mostly WhatsApp messages or phone calls communicate with students and parents
Online/Remote teaching	Slightly better attempts at online engagement but still mostly informal	Very limited due to lack of digital resources and internet access
Digital Infrastructure	Slightly better access to digital tools but still not fully developed	Low availability of digital devices and internet facilities
Crises Management Policy	No written crisis response policies in most schools	No formal crisis management policies reported
Teacher training for crisis teaching	Few teachers reported some training but overall inadequate	Very limited or no training in online teaching or crisis pedagogy
Monitoring student progress	Some informal monitoring; structured assessment rarely practiced	Mostly informal monitoring through WhatsApp or parent communication
Leadership Responses	Leadership slightly flexible but still lacked structured planning	Head teachers relied on informal and reactive decisions
Emotional support	Similar lack of counselling services	No formal counselling services available
Preparedness	Slightly better digital readiness but still largely unprepared	Schools generally unprepared for sudden closures

This table presented a comparison of public and private schools' mechanisms adopted for the continuity of learning during unexpected closures.

Discussion

The findings of this study highlight several important issues regarding how secondary schools respond to disrupted learning during unexpected crises. The results indicate that both public and private schools relied largely on informal and reactive mechanisms to sustain learning continuity. Although schools attempted to maintain communication with students through accessible platforms such as WhatsApp, the absence of structured institutional strategies limited the effectiveness of these efforts. These findings align with previous studies which

suggest that many schools worldwide faced difficulties in responding to sudden educational disruptions due to limited preparedness and lack of crisis management frameworks (Havik & Ingul, 2022; Bharaj & Singh, 2021).

One of the most important outcomes of this study is the fact that schools are not ready to be in crisis situations. Most of the head teachers asserted that they had no policies, written instructions or institutional plans on how to handle the disrupted learning. This resulted in the informal communication by the school leaders, the temporary change in the teaching methods and the impromptu decision making. These reactions, in terms of the Leadership Contingency Opportunity Theory, are the manner in which the school leaders attempted to adapt to the dynamic contextual constraints quite rapidly in the situation of the absence of institutional support. Virtually the same situation has been observed in the international research, in which the heads of schools were forced to make quick decisions in unclear situations when they lacked sufficient instructions and pre-planning (Murphy and Devine, 2023; Harris and Jones, 2022).

The other significant conclusion is related to the digital divide and technological impediments to the continuation of learning. Despite the fact that the activity of the private schools turned out to be rather more digital-prepared, it was very informal and not properly integrated into the digital learning realms. The issues were, however, more prevalent in the public schools as there was the lack of digital infrastructure, web connectivity, and other technological assets. Such findings support the existing literature that found the influence of digital access inequalities to be a significant determinant of the success of remote education, which occurs during school shutdowns (Scheerder et al., 2017; Anders et al., 2021). Students of disadvantaged background were especially susceptible to the digital divide and could only participate in remote activities of learning.

It is also revealed in the research that there have been severe pedagogical questions that teachers have to face in case of disrupted learning periods. It turned out that the majority of the teachers were not well trained in online teaching, there was a lack of preparation time, and they could not engage the student with remote communication equipment. These challenges are consistent with the existing world literature that indicated that educators worldwide had challenges adjusting their teaching methods whenever they employed remote teaching in the instance of an emergency (Bergdahl and Nouri, 2021; Baskent University et al., 2021). The teachers

in most cases resorted to low-tech communication systems rather than organized digital learning systems, which limited the meaningful interaction and adequate evaluation of learning among the students.

The other serious issue that was also determined during this study is the absence of any systematic monitoring and assessment systems in the case of the interruption of learning. Teachers in the state and private schools lamented that they were facing issues related to keeping a check on the attendance of students, evaluating their academic performance and providing them with a stable feedback. The lack of properly arranged monitoring systems contributed to the issue with the loss of learning and the decline in the academic engagement of students. It has also been highlighted by other researchers that the absence of interaction and inconsistent evaluation practices had a negative effect on learning outcomes and student motivation in case of school closures (Nelson et al., 2021; Willermark, 2021).

The minimal attention paid to the socio-emotional wellbeing of students in disrupted learning is also noted by other findings. As reported by the majority of the respondents, the school did not have a formal counselling service or a structured emotional support system of students. Although there were instances where teachers provided informal support, institutions and training of teachers did not support them. Other past researches have also shown that a greater degree of psychological stress, anxiety, and academic uncertainty in the students were caused by the extended school closure/closure (Sharp et al., 2020; Dove et al., 2020). This absence of structured psychosocial support systems is therefore, a crucial blank in crisis sensitive education planning.

In addition, it is discovered that there was a high level of emotional and professional stress among teachers and leaders of schools at the time of the disruption. The interviewees observed that they had increased workloads, stresses, and problems in balancing between work and their personal commitments. The results are consistent with the international study that found psychological implications of education disturbances among teachers and school administrators (Briscoe and Nyereyemhuka, 2022; Watson and Singh, 2022). Institutional support mechanisms were also lacking in solving these challenges.

In general, the results prove that in spite of schools trying to address disrupted learning with the help of the resources available, their efforts were rather reactive

than proactive. The inability to sustain effective learning continuity during crisis in schools was curtailed by the lack of formal crisis management strategies, deficiency in teacher training, the lack of digital infrastructure as well as psychosocial support systems.

Conclusion

This study examined the mechanisms adopted by public and private secondary schools to manage disrupted learning during unexpected crises. The findings reveal that both sectors relied largely on informal and temporary strategies to maintain learning continuity. Communication with students was mainly conducted through low-cost digital platforms such as WhatsApp, while structured online learning systems were largely absent.

Public schools faced greater challenges due to limited technological resources, bureaucratic constraints, and insufficient institutional support. Although private schools demonstrated relatively better digital readiness, they also lacked systematic crisis response frameworks. The study further identified significant gaps in teacher training, student assessment practices, and psychosocial support systems during school closures.

The results indicate that schools were not adequately prepared to manage large-scale disruptions in the education system. Strengthening institutional preparedness, digital infrastructure, and professional development opportunities for teachers is therefore essential for improving the resilience of education systems in the face of future crises.

Implication for Policy and Practices

Based on the findings of this study, several implications emerge for educational policy and practice.

First, the education administrators ought to come up with detailed crisis management plans that would offer proper guidance on how to address interrupted learning in case of emergencies. These frameworks need to define the roles and responsibility of every school leader, teacher, student, and parents to coordinate the response of every stakeholder during school closures.

Second, it is necessary to enhance professional growth of teachers, especially in the contexts concerning digital pedagogy, distance learning, and teaching approaches in response to the crisis. Training programs conducted periodically can also improve the capacity of teachers to change the instruction practice in case of unplanned interference.

Third, to help maintain the continuity of learning, better digital infrastructure and technological access in schools is necessary. The education departments are advised to invest in the digital materials, the internet and easy learning platforms to decrease the gap between the public and private schools.

Finally, psychosocial support mechanisms should be incorporated in the crisis management planning of schools. The psychological issues faced by the students and educators because of the long-term disruption could be overcome by setting up counselling services and offering emotional support programs.

Future Research

Future studies may explore address the attitudes of students and parents toward disrupted learning experiences and discuss the long-term academic recovery after repeated school closures. Moreover, comparative research of various areas and education systems would help to get a better understanding of the viable crisis-responsive strategies to maintain continuity in learning.

References

- Anders, J., Macmillan, L., Sturgis, P., & Wyness, G. (2021). Inequalities in young peoples' educational experiences and wellbeing during the COVID-19 pandemic. <https://discovery.ucl.ac.uk/id/eprint/10136658/>
- ASER Pakistan. (2022). Annual status of education report (ASER) Pakistan 2022. South Asian Forum for Education Development. <https://aserpakistan.org/report>
- Baskent University, Akbaba Altun, S., Bulut, M., & Baskent University. (2021). The roles and responsibilities of school administrators during the emergency remote teaching process in COVID-19 pandemic. *Research in Educational Administration and Leadership*, 6(4), 870–901. <https://doi.org/10.30828/real/2021.4.4>
- Bergdahl, N., & Nouri, J. (2021). COVID-19 and crisis-prompted distance education in Sweden. *Technology, Knowledge and Learning*, 26(3), 443–459. <https://doi.org/10.1007/s10758-020-09470-6>
- Bethhäuser, B. A., Bach-Mortensen, A. M., & Engzell, P. (2023). A systematic review and meta-analysis of the evidence on learning during the COVID-19 pandemic. *Nature Human Behaviour*, 7(3), 375–385. <https://doi.org/10.1038/s41562-022-01506-4>
- Bharaj, P. K., & Singh, A. (2021). "Fold the eggs ... fold the eggs ...": Experiences of educational stakeholders during COVID-19. *Frontiers in Education*, 6, 727494. <https://doi.org/10.3389/feduc.2021.727494>
- Bozkurt, A., Jung, I., Xiao, J., Vladimirsch, V., Schuwer, R., Egorov, G., Lambert, S. R., Al-Freih, M., Pete, J., Olcott, D., Jr., Rodes, V., Aranciaga, I., Bali, M., Alvarez, A. V., Roberts, J., Pazurek, A., Raffaghelli, J. E., Panagiotou, N., Coëtlogon, P. de, & Paskevicius, M. (2020). A global outlook to the interruption of education due to COVID-19 pandemic: Navigating in a time of uncertainty and crisis. <https://doi.org/10.5281/zenodo.3878571>
- Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Harvard University Press.
- Briscoe, P., & Nyereyemhuka, N. (2022). Turning leadership upside-down and outside-in during the COVID-19 pandemic. *Canadian Journal of Educational Administration and Policy*, 200, 104–114.
- Chebbi, H., & Pündrich, A. P. (2015). Learning crisis unit through post-crisis: Characteristics and mechanisms. *The Learning Organization*, 22(4), 198–214. <https://doi.org/10.1108/TLO-07-2011-0044>
- Dove, N., Wong, J., Gustafson, R., & Corneil, T. (2020). Impact of school closures on learning, child and family well-being during the COVID-19 pandemic. BC Centre for Disease Control.
- Fiedler, F. E. (1967). *A theory of leadership effectiveness*. McGraw-Hill.
- Hallinger, P., & Wang, R. (2020). Responding to COVID-19: How school leadership in China responded to the crisis. *Educational Management Administration & Leadership*, 48(5), 1–17. <https://doi.org/10.1177/1741143220935686>
- Hargreaves, A., & Fullan, M. (2020). Professional capital after the pandemic: Revisiting and revising classic understandings of teachers' work. *Journal of Professional Capital and Community*, 5(3–4), 327–336. <https://doi.org/10.1108/JPC-06-2020-0039>
- Harmey, S., & Moss, G. (2023). Learning disruption or learning loss: Using evidence from unplanned closures to inform returning to school after COVID-19. *Educational Review*, 75(4), 637–656. <https://doi.org/10.1080/00131911.2021.1966389>
- Harris, A., & Jones, M. (2020). COVID-19 – School leadership in disruptive times. *School Leadership & Management*, 40(4), 243–247. <https://doi.org/10.1080/13632434.2020.1811479>
- Harris, A., & Jones, M. (2022). Leading during a pandemic – What the evidence tells us. *School Leadership & Management*, 42(2), 105–109. <https://doi.org/10.1080/13632434.2022.2064626>

Hassan, B. S. (2025). The effect of climate change on education sectors: A case study on Somalia. *International Journal of Multidisciplinary Research and Growth Evaluation*, 6(2), 96–102. <https://doi.org/10.54660/IJMRGE.2025.6.2.96-102>

Havik, T., & Ingul, J. M. (2022). Remote education/homeschooling during the COVID-19 pandemic, school attendance problems, and school return—Teachers' experiences and reflections. *Frontiers in Education*, 7, 895983. <https://doi.org/10.3389/feduc.2022.895983>

House, R. J. (1971). A path-goal theory of leader effectiveness. *Administrative Science Quarterly*, 16(3), 321–339. <https://doi.org/10.2307/2391905>

Khan, Q., & Hussain, K. (2023). Gone with the flood: Natural disasters and children's schooling in Pakistan. *The B.E. Journal of Economic Analysis & Policy*, 23(1), 271–283. <https://doi.org/10.1515/bejeap-2022-0134>

Lotrecchiano, G., & Tidmore, L. (2020). Change and crisis: Shifting dynamics in digital learning. In *EDULEARN20 Proceedings* (pp. 7397–7407). <https://doi.org/10.21125/edulearn.2020.1886>

Masten, A. S. (2001). Ordinary magic: Resilience processes in development. *American Psychologist*, 56(3), 227–238. <https://doi.org/10.1037/0003-066X.56.3.227>

Masten, A. S., & Obradović, J. (2008). Disaster preparation and recovery: Lessons from research on resilience in human development. *Ecology and Society*, 13(1), Article 9.

Mazrekaj, D., & De Witte, K. (2024). The impact of school closures on learning and mental health of children: Lessons from the COVID-19 pandemic. *Perspectives on Psychological Science*, 19(4), 686–693. <https://doi.org/10.1177/17456916231181108>

Murphy, G., & Devine, D. (2023). Sensemaking in and for times of crisis and change: Irish primary school principals and the COVID-19 pandemic. *School Leadership & Management*, 43(2), 125–144. <https://doi.org/10.1080/13632434.2022.2164267>

Nelson, J., Lynch, S., & Sharp, C. (2021). Recovery during a pandemic: The ongoing impacts of COVID-19 on schools serving deprived communities. *National Foundation for Educational Research*.

Northouse, P. G. (2022). *Leadership: Theory and practice* (9th ed.). SAGE Publications.

Organisation for Economic Co-operation and Development. (2021). *The state of school education: One year into the COVID-19 pandemic*. OECD Publishing. <https://www.oecd.org/education/state-of-school-education-one-year-into-covid-19-pandemic.htm>

Reimers, F. M., & Schleicher, A. (2020). *Schooling disrupted, schooling rethought: How the COVID-19 pandemic is changing education*. OECD.

Scheerder, A., Van Deursen, A., & Van Dijk, J. (2017). Determinants of internet skills, uses and outcomes: A systematic review of the second- and third-level digital divide. *Telematics and Informatics*, 34(8), 1607–1624.

Sharp, C., Nelson, J., Lucas, M., Julius, J., McCrone, T., & Sims, D. (2020). *Schools' responses to COVID-19: The challenges facing schools and pupils in September 2020*. National Foundation for Educational Research.

Tan, C. Y., Jang, S. T., Lam, S. M., An, A. Q., & Lo, U. K. V. (2025). Teaching and learning challenges due to the COVID-19 pandemic: A systematic review. *Educational Research Review*, 47, 100667. <https://doi.org/10.1016/j.edurev.2025.100667>

UNESCO. (2020a). COVID-19 educational disruption and response. <https://en.unesco.org/covid19/educationresponse>

UNESCO. (2020b). Education: From disruption to recovery. UNESCO. <https://en.unesco.org/covid19/educationresponse>

UNICEF. (2021). *COVID-19 and school closures: One year of education disruption*. UNICEF. <https://www.unicef.org/reports/covid-19-and-school-closures-one-year-education-disruption>

Ungar, M. (2011). The social ecology of resilience: Addressing contextual and cultural ambiguity of a nascent construct. *American Journal of Orthopsychiatry*, 81(1), 1–17. <https://doi.org/10.1111/j.1939-0025.2010.01067.x>

Ungar, M. (2018). *Systemic resilience: Adaptation and transformation in contexts of change*. Oxford University Press.

Watson, R., & Singh, U. G. (2022). Support mechanisms utilised by educational leaders during COVID-19: Experiences from the Western Australian public education school sector. *School Leadership & Management*, 42(5), 457–477. <https://doi.org/10.1080/13632434.2022.2116568>

Willermark, S. (2021). Who's there? Characterizing interaction in virtual classrooms. *Journal of Educational Computing Research*, 59(6), 1036–1055. <https://doi.org/10.1177/0735633120988530>

World Bank. (2021). COVID-19: From learning loss to recovery. <https://www.worldbank.org/en/topic/education/publication/covid-19-learning-loss-and-recovery>

World Bank Group. (2022). *Impact of climate-related shocks on education in Pakistan*. World Bank.
Yukl, G. (2013). *Leadership in organizations* (8th ed.). Pearson Education.

Article Information:

Received	3-Jan-2025
Revised	27-Feb-2026
Accepted	12-Mar-2026
Published	30-Mar-2026

Declarations:

Author's Contribution:

- All Authors **Conceptualization, and intellectual revisions**
- **Data collection, interpretation, and drafting of manuscript**
- The authors agree to take responsibility for every facet of the work, making sure that any concerns about its integrity or veracity are thoroughly examined and addressed

▪ **Conflict of Interest:** NIL

▪ **Funding Sources:** NIL

Correspondence:

Sawera Saddique

siaranasiarana892@gmail.com
