Building Back Better: Exploring The Resilience of Schools in Disaster Recovery

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ABSTRACT

As natural and human-made disasters escalate globally, the urgency to rebuild resilient communities is increasingly evident. With this study, Building Back Better: Exploring the Resilience of Schools in Disaster Recovery explores the experiences, disaster recovery, challenges, coping mechanisms, and insights of three school administrators and four teachers designated as school Disaster Risk Reduction coordinators in the Monkayo East District of Davao de Oro. This study utilized qualitative phenomenological study to delve into the lived experiences of educational professionals during post-disaster recovery. This research aims to gain a deep understanding of the challenges, coping mechanisms, and insights from a purposive sample of four teachers designated as school Disaster Risk Reduction coordinators and three school administrators who have directly engaged with the recovery processes following natural disasters. The data were gathered through an in-depth face-to-face interview and used an audio recorder to record the discussion. The significant finding from the study is the multifaceted and long-lasting impact of disasters on students' learning environments. This finding highlights how disasters not only cause physical damage to school infrastructure but also disrupt the educational process, widen achievement gaps, and affect the emotional well-being of students. The disruption of normal routines and the psychological stress experienced by students underscore the critical need for comprehensive recovery strategies, including academic support and mental health resources, to help students regain stability and continue their education effectively. This emphasizes the importance of preparedness and resilience in educational institutions to mitigate the impact of such crises. This study highlights the need for timely assessments, repairs, and coordination with local authorities to ensure the structural integrity of school facilities. It underscores the importance of disaster preparedness and the implementation of robust recovery strategies to mitigate the impact on the educational environment and maintain a safe and conducive learning space. This focus on infrastructure is foundational, as it directly influences the ability of schools to function effectively post-disaster. Teachers and school heads are pivotal in disaster risk reduction within educational institutions. They create safety plans, organize drills, and educate students on emergency procedures, fostering a culture of preparedness. School heads provide leadership, while teachers act as first responders, guiding students to safety and offering necessary care. Collaboration between teachers, school heads, and stakeholders is crucial for a resilient school environment. By involving the entire school community in planning and implementing safety measures, schools can effectively respond to disasters, ensuring the safety and well-being of everyone involved. This partnership promotes a proactive approach to disaster preparedness, making safety a priority in all school activities.

INTRODUCTION

The Problem and its Background

As natural and human-made disasters escalate globally, the urgency to rebuild resilient communities is increasingly evident. Educational institutions, particularly in economically disadvantaged areas like barrio schools, are especially vulnerable. These schools face multifaceted challenges, from infrastructure damage requiring significant repairs to resource scarcity that delays the resumption of classes. Displacement of staff and students complicates teaching and attendance, while the educational process is disrupted by shortened academic calendars and the need for curricular adaptations to new realities. As noted by Wisner (2016), these institutions struggle not only with physical and psychological rebuilding but also in serving as community hubs, underlining the need for strategic planning and support systems that address their unique vulnerabilities and enhance recovery capabilities in marginalized communities.

The 2011 Great East Japan Earthquake and Tsunami revealed critical shortcomings in educational systems, prompting a concerted effort to fortify the resilience of school infrastructures and enhance disaster preparedness programs. In response, Japan dedicated significant resources to reconstructing safer, earthquake-resistant school buildings. Teachers and administrators played a pivotal role in this transformation, actively participating in the redesign of school facilities and the revision of emergency protocols to improve future disaster responses. This strategy not only rebuilt the physical environment but also strengthened the overall resilience of the community, setting a benchmark that has inspired similar initiatives globally (Maly, 2018).

Severe flooding from Typhoon Vamco devastated San Roque Elementary School in Cagayan province, Philippines, prompting a significant crisis management response from teachers and administrators. They spearheaded initial cleanup efforts, removing mud and debris from classrooms and salvaging what materials they could. Administrators conducted thorough damage assessments and collaborated with local authorities and humanitarian organizations to secure rebuilding aid. To maintain educational continuity, they also established temporary classrooms and implemented distance learning solutions. These actions underscored the critical role of school leadership in navigating the immediate aftermath of natural disasters. (United Nations Office for the Coordination of Humanitarian Affairs (OCHA, 2020.)

In the Monkayo East district of Davao de Oro, teachers and administrators at eight barrio schools tackle frequent landslides and floods by implementing comprehensive disaster preparedness and response strategies. Teachers focus on training students in emergency procedures through regular drills and adapted educational materials. Administrators collaborate with local authorities to refine disaster response plans, oversee staff training, and manage emergency supplies. They also handle the reconstruction of damaged infrastructure, secure funding for improvements, and ensure compliance with safety standards. Both roles involve advocating for more support and resources to enhance school safety and continuity, particularly during crises, highlighting their commitment to both immediate student safety and the long-term viability of educational programs.

Purpose of the Study

The purpose of this qualitative phenomenological study is to delve into the lived experiences of educational professionals during post-disaster recovery in the Monkayo East District of Davao de Oro.

This research aims to gain a deep understanding of the challenges, coping mechanisms, and insights from a purposive sample of four teachers and three administrators who have directly engaged with the recovery processes following natural disasters.

Review of Related Literature

The following related literature and studies provide valuable information that will be instrumental in discussing the findings of this study, particularly focusing on the disaster recovery process. The literature pertinent to this study delves into the experiences, challenges, coping mechanisms, and insights gained by teachers and administrators in schools after disasters. This collection of resources aims to shed light on how educational institutions navigate the complex path of recovery, rebuilding not only their physical infrastructures but also reinforcing the resilience and well-being of their communities.

Disaster Resilience of School. In recent years, the concept of resilience in educational settings has garnered significant attention, particularly as schools worldwide face increasing pressures and challenges. Resilience, generally understood as the capacity to recover quickly from difficulties, is not only applicable to individuals but also to systems, including educational institutions. One such significant study by Llistosella et al. (2023) employed a systematic review and meta-analysis approach to assess the effectiveness of these interventions. Their research highlights how resilience-building initiatives can significantly benefit adolescents, particularly those facing adversities, by enhancing their ability to cope with and adapt to their environments. This underscores the role of targeted interventions in schools that are specifically designed to bolster psychological and emotional resilience among students.

Various scholars have explored resilience in schools, highlighting different dimensions. Marilyn Campbell and Linda Oades (2005) reviewed programs aimed at enhancing resilience, discussing strategies for creating supportive educational environments in the "Australian Journal of Guidance and Counselling." Wendy Sims-Schouten and Sally Cox (2016) examined the impact of resilience on mental health in schools, with their findings published in "Emotional and Behavioural Difficulties." Ian Stirling (2014), in the "International Journal of Educational Management," discussed the importance of comprehensive resilience programs that support both students and the educational infrastructure. These studies underscore the integration of resilience training into school curricula to foster academically and psychologically supportive environments.

Given the important role of schools after disasters and the distribution of schools throughout a city, they can be considered as shelters for homeless people and a place for medical clinics and other emergency operations. After a disaster, the schools' activity will create a sense of normal condition in the community and help people return to normal status after an event. Studies on school resilience have focused more on the role of schools before and after disasters and the existence or absence of disaster readiness plans. While school resilience embraces a variety of dimensions and components, each study has focused on a single dimension (Mirzaei et. al. 2019).

The resilience of schools in disaster scenarios significantly depends on architectural and safety features, including necessary structural interventions such as retrofitting and renovation. Factors like location, topography, soil type, and foundation are critical in determining the structural integrity of school buildings, ensuring they remain safe during disasters. Esther Charlesworth and John Fien discuss how the practices and principles of design can significantly mitigate the impacts of disasters and aid in effective recovery. Their study emphasizes the integration of design with systems analysis to enhance socio-economic and physical resilience in communities affected by disasters. This includes a focus on disaster-resilient

architectural practices that ensure buildings can withstand and recover from various natural threats (Charlesworth & Fien, 2022).

According to an article by Stephanie Ossenbach, implementing disaster-resilient architecture not only minimizes the destruction in hazard-prone areas but also ensures that the impacts of disasters are manageable and short-lived. This includes the strategic use of building materials and structural enhancements that are particularly suited to the environmental challenges of the specific area. The use of aerodynamic designs and materials that resist specific disaster threats, such as floods or earthquakes, is highlighted as crucial in reducing overall risk (Ossenbach, 2022).

Moreover, the recent study conducted by Avelino et al. (2024), it has been highlighted that in remote and vulnerable regions, such as those where barrio schools are situated, the impact of natural disasters like typhoons, earthquakes, and floods is particularly devastating. These catastrophic events often leave a trail of destruction in their wake, causing extensive damage to infrastructure, disrupting the normal functioning of educational facilities, and inflicting psychological trauma on students, teachers, and community members alike. Moreover, the already limited resources within these communities are further stretched to their limits, exacerbating the challenges faced by residents in the aftermath of such disasters.

The identification and implementation of effective indices for school resilience in the context of disaster preparedness and response is a topic that has been comprehensively analyzed in recent literature. For instance, a study published in PLOS ONE highlights various components such as structural, non-structural, functional-process, and facilities as critical factors in enhancing the resilience of schools in emergencies and disasters. This study underscores the importance of functional and process components including education, communication, planning, and management strategies to bolster school readiness. It suggests that due to potential financial constraints associated with structural modifications like retrofitting, schools could focus on implementing functional measures with available resources, complemented by effective human and financial resource management to enhance resilience (PLOS ONE, 2021).

The consequences of floods, in particular, are especially dire, with heavy rains and typhoons often resulting in widespread devastation, particularly among those who are already vulnerable and marginalized, as noted by Szewranski et al. (2018). These flood disasters, exacerbated by various factors including social vulnerability, environmental degradation, and the impacts of climate change, have been observed to be occurring with increasing frequency and severity over recent years, as highlighted by Bertilsson et al. (2019).

The need to prioritize disaster risk reduction in vulnerable communities, including those with barrio schools, is crucial for enhancing resilience against natural disasters. Several studies and initiatives have focused on improving infrastructure, implementing early warning systems, and training communities to effectively manage disaster risks.For instance, UNESCO advocates for the establishment and improvement of early warning systems as a cost-effective measure to reduce the economic impact of natural hazards and save lives. These systems are integral to disaster risk reduction strategies and are crucial for communities' preparedness and response to emergencies (UNESCO, 2023).

Disaster resilience of schools involves developing comprehensive strategies that ensure educational continuity and safety during emergencies through robust infrastructure, preparedness training, and community collaboration. By fostering a culture of resilience, schools can quickly recover from disasters, minimize disruptions, and maintain a stable learning environment for students. Based on Andrew Maskrey's 2011 study emphasizes the importance of community-based disaster risk management (CBDRM) in strengthening school resilience to disasters. The research shows that proactive disaster

planning by communities significantly enhances the safety and sustainability of educational institutions (Maskrey, A. 2011).

In 2010 article published in the International Journal of Disaster Risk Reduction, Ben Wisner explores the critical role of education in disaster risk reduction. He uses case studies to demonstrate how integrating disaster preparedness into school curricula not only educates students about risks but also empowers them to act preemptively. Wisner argues that such educational initiatives do more than prepare schools for emergencies; they instill a community-wide mindset of preparedness among students, educators, and administrators. He advocates for policies that promote continuous learning and adaptation to new risks, enhancing schools' capacities to serve as safe havens during crises. Ultimately, Wisner's work underscores the vital role of educational systems in fostering resilience and ensuring that learning persists even in adverse conditions, making schools foundational pillars in building disaster-resilient communities. (Wisner, B. 2010)

According to the study of Greg Bankoff and Dorothea Hilhorst, 2009, about The Politics of Risk in the Philippines: Comparing State and Community-led Disaster Management they analyze how community-led disaster management strategies enhance the resilience of schools in the Philippines. Their research highlights the effectiveness of grassroots initiatives over top-down approaches. By focusing on schools, central to barrio communities, they demonstrate that community-driven preparedness and response better address local needs and vulnerabilities, leading to more resilient educational institutions. Bankoff and Hilhorst argue for policies that encourage community involvement in disaster planning, emphasizing that resilient schools are pivotal to building resilient communities. Their findings underscore the importance of local, inclusive strategies in safeguarding education against natural disasters, offering crucial insights for improving school safety globally (Bankoff, & Hilhorst, 2009).

A resilient and safer school environment not only saves lives but also serves as a refuge for the local community during disasters, offering temporary shelter and aiding in the restoration of normalcy. Unfortunately, many public-school buildings, constructed before the implementation of adequate building codes, suffer from structural deficiencies exacerbated by their specific architectural designs tailored to educational needs. Given these factors, it is imperative to prioritize the assessment of physical vulnerability in school buildings and allocate resources for retrofitting and strengthening initiatives. By doing so, we can mitigate risks, enhance safety measures, and better protect our communities, especially our most vulnerable members (D'Ayala et al., 2020).

There is a critical need to foster a culture of disaster prevention and management within these communities. This requires comprehensive strategies encompassing early warning systems, evacuation plans, communication infrastructure, and community capacity building (Rosenzweig et al., 2018). To ensure effectiveness, these efforts must be accompanied by localized and participatory risk communication strategies from the government (Cayamanda et al., 2021).

Such approaches not only empower communities but also promote inclusivity and collaboration in disaster preparedness and risk reduction initiatives. Urban areas, particularly those undergoing rapid development like Davao City, face unique challenges in managing flood risks (Cayamanda & Lopez, 2022; Echendu, 2021). Understanding community practices and resilience is crucial for mitigating the impacts of flooding, including issues like waste management and unauthorized construction (Aanensen, 2017). Effective emergency preparedness should involve both structural and non-structural measures, considering residents' perceptions and experiences (Ejeta, 2018).

When disaster strikes, schools can be requisitioned for accommodation and relief centers or information hubs. Studies have indicated that the repercussions of disasters on schools, especially those in rural areas, extend beyond immediate destruction, affecting long-term educational outcomes and community resilience. Consequently, the concept of 'Building Back Better' has gained prominence in disaster recovery and resilience efforts, emphasizing not only infrastructure reconstruction but also enhancing resilience to future disasters. (Mutch,2023).

Experiences of Teachers and Administrator after the Disaster. Incorporating teacher resilience and well-being into the broader framework of community resilience is not just significant; it's paramount. As primary touchpoints for the younger generation, teachers' preparedness directly influences the preparedness of the community at large. Their well-being, or lack thereof, has a cascading effect on their students, impacting the overall efficacy of disaster education initiatives. The resilience of teachers, both psychological and physical, is crucial in determining their ability to deliver effective education. This is particularly true in post-disaster scenarios, where trauma and loss pervade community sentiment (Lindell & Perry2012).

In a remote village in Bangladesh, a powerful cyclone made landfall, causing widespread devastation. The local school, which was already in disrepair, suffered severe damage, with its roof torn off and classrooms inundated with water. Teaching materials were destroyed, significantly hindering the school's educational capacity. Due to the extensive flooding, roads became impassable, making it nearly impossible for students and teachers to access the school (IFRC, 2020). The community faced immense challenges in restoring the school and ensuring the continuity of education. Efforts to repair the school were further complicated by limited resources and the ongoing impact of the disaster on the village's infrastructure. This situation highlighted the critical need for resilient school infrastructure and effective disaster preparedness strategies to mitigate the effects of such natural hazards in the future.

In a rural barangay in Leyte, Philippines, Typhoon Haiyan (Yolanda) made landfall with devastating force, causing widespread destruction. Barangay Elementary School suffered extensive damage, with classrooms destroyed, roofs blown off, and educational materials scattered, leaving it unsafe and students without a place to learn (OCHA), 2013). In the aftermath, teachers played a crucial role in recovery by organizing makeshift classrooms in shelters and community centers to continue lessons. They coordinated with relief organizations to secure supplies and support for rebuilding. Additionally, teachers provided emotional and psychological support to students, helping them cope with the disaster's trauma. Their resilience and dedication were key in restoring educational infrastructure and hope in the community.

In December 2012, Andap High School in New Bataan, Davao de Oro, was severely affected by Typhoon Bopha, which rendered many school facilities unusable. Teachers and administrators responded by partnering with organizations such as Samaritan's Purse to restore infrastructure and support displaced families with essential supplies like food and water. They also engaged in trauma counseling and community rebuilding programs. Additionally, the school revised its disaster preparedness plans, incorporating regular drills, reinforcing buildings, and establishing emergency communication networks to improve resilience against future disasters. These comprehensive efforts not only rebuilt the physical structures but also enhanced the community's overall preparedness.

Challenges of Teachers and Administrator after the Disaster. Natural catastrophes present substantial challenges for communities, especially in rural areas where resources are typically scarce. Rural schools, often known as "barrio schools" in the Philippines, are among the important infrastructures affected by disasters. These schools are more than just educational institutions; they are community cornerstones,

providing stability, social cohesiveness, and frequently serving as emergency shelters. However, when calamity strikes, these schools face enormous obstacles, including physical damage, disrupted learning, and psychological anguish among students and staff. Barrio schools, often located in remote and vulnerable areas, are particularly susceptible to the destructive forces of natural disasters such as typhoons, earthquakes, and floods (PDRF, 2019). The aftermath of disasters in rural schools includes physical damage to infrastructure, disrupted learning environments, psychological trauma among students and staff, and strains on the already limited resources of these communities. (OCHA, 2020). Research has shown that the impact of disasters on barrio schools extends beyond the immediate destruction, affecting long-term educational outcomes and the overall resilience of communities. (UNICEF, 2018).

According to the study of Aldrich, 2018 the challenges of post-disaster recovery, emphasizing the importance of building back better to ensure resilience. He highlights the need for a comprehensive approach that includes social, economic, and environmental factors. Aldrich argues that recovery from disasters such as hurricanes, earthquakes, and other catastrophic events is not just about rebuilding physical infrastructure but also about addressing the social and psychological impacts on affected communities. Recovery efforts often face challenges such as resource allocation, managing displacement, and ensuring equitable rebuilding efforts that do not disproportionately benefit some groups over others.

Teachers are in a unique and well-placed position to provide vital support to children following natural disasters and other potentially traumatic events. Teachers as pivotal figures in the recovery process for children who have experienced traumatic events. By leveraging their position, trust, and professional capabilities, teachers can significantly mitigate the negative impacts of such experiences on children (Alisic, Bus, Dulack, Pennings and Splinter2012;) Teachers, especially those trained in recognizing and responding to signs of trauma, can identify students who may be struggling with post-traumatic stress. They can provide immediate support or refer students to mental health professionals when necessary. Moreover, their training in educational psychology and child development equips them to use appropriate interventions tailored to the needs of children at different developmental stages.

Rural schools, such as those in Harlan County, face specific challenges related to increasing racial diversity and socio-economic issues, which are worsened by disasters (Harvard Graduate School of Education, 2021). These issues are further compounded by isolation and limited access to quality professional development (RSIS International, 2021). Additionally, studies emphasize the necessity of trauma healing programs that involve parents and the broader community to rebuild emotional resilience among students and teachers, thereby enhancing the educational environment (ScienceDirect, 2021; PLOS ONE, 2021).

Economic factors significantly impact post-disaster recovery for rural schools. A 2021 article by Edutopia highlights how economic challenges can severely affect school operations and teacher morale, emphasizing the importance of community support and local initiatives in aiding recovery (Edutopia, 2021). Additionally, the emotional challenges students face post-disaster require teachers to manage these effectively to maintain a conducive learning environment, as explored by Social Studies Org (Social Studies Org, 2021). These studies collectively underscore the multifaceted challenges faced by teachers in disaster-affected areas and the critical role of tailored, community-focused interventions in supporting educational continuity and recovery.

Coping mechanisms of Teachers and Administrator after the Disaster. In the wake of disasters, the strategic response of educational leaders and teachers becomes crucial to the recovery and continued success of school communities. Research, such as that published in Education Sciences (2023),

emphasizes the role of crisis management and strong leadership in navigating these challenging times. Effective strategies highlighted include the development of robust vision and adaptable plans, continuously evaluated and modified to meet evolving circumstances. This ensures not just the restoration of normalcy but also the strengthening of the educational infrastructure against future crises.

Expanding on the theme of resilience in schools, March et al. (2022) in the International Journal of Environmental Research and Public Health explore the barriers and facilitators to sustaining school-based mental health and wellbeing interventions. Their systematic review identifies key factors at both the school and wider system levels, emphasizing the importance of school leadership, staff engagement, and external support (MDPI). Similarly, Martínez-García (2022) in Health Education highlights the positive impact of universal school-based mental health promotion programs on the wellbeing of adolescents and preadolescents, identifying mental health education and the development of resilience traits as crucial components (Emerald Insight). These studies reinforce findings from PLOS ONE (2021) and Frontiers (2021), which emphasize the significant role of community-based interventions and mental health support in enhancing resilience among teachers and student's post-disaster. Integrating these programs into school curricula helps educators manage stress and maintain educational continuity, contributing to a more resilient educational infrastructure.

The study Sustaining Mental Health and Wellbeing Programmed in Schools by March et al. (2024), discusses recommendations from an online roundtable on how to sustain mental health and wellbeing interventions in schools. It highlights the importance of embedding mental health into the school curriculum and creating accountability at all levels, including school leaders, researchers, and policy makers. The study emphasizes that sustainable mental health interventions require comprehensive support systems and a shift in school culture to prioritize student wellbeing alongside academic achievement. These studies collectively reinforce the significance of sustained, school-based mental health interventions and the need for comprehensive, collaborative approaches to ensure their long-term effectiveness and integration into school systems.

The study of Cavioni et al. (2021) The Effectiveness of a School-Based, Universal Mental Health Programme in Six European Countries, investigates the impact of universal mental health interventions on students' social and emotional wellbeing across diverse European settings. The research finds that these programs significantly enhance students' social and emotional competencies, such as empathy, self-awareness, and emotional regulation. Additionally, the study highlights a notable reduction in mental health issues, including anxiety and depression, particularly among students from low socio-economic backgrounds. This underscores the crucial role of integrating comprehensive mental health programs within educational systems to foster resilience and overall wellbeing. The study emphasizes that such interventions are not only beneficial for students' mental health but also for their academic performance, as emotionally healthy students tend to perform better academically. Furthermore, the findings suggest that these programs can help bridge the gap in mental health support, providing essential resources to underserved communities. By incorporating these programs into school curricula, educational institutions can create supportive environments that promote both mental health and academic success. Overall, the study advocates for the widespread adoption of universal mental health interventions in schools to ensure the holistic development of students.

Insights Gained of Teachers and Administrator after the Disaster. These studies provide valuable insights into the strategies and adaptations necessary for educational leaders and teachers in the aftermath

of disasters, highlighting the importance of preparedness, flexibility, and innovative approaches to ensure the continuity and recovery of educational services.

In the wake of various disasters, the strategic roles of educational leaders and the preparedness of teachers have been pivotal in managing the ensuing challenges effectively. A study by Mutch (2015) detailed in Frontiers emphasizes the importance of school leadership during the 2011 Christchurch earthquake, highlighting how attributes like a strong vision, collaboration, and adaptability allowed school leaders to navigate through the crisis effectively, thereby fostering both community and school resilience. Similarly, a 2023 review in MDPI on crisis management post-COVID-19 underscores that school leadership's adaptability and strategic planning were crucial during the pandemic, assisting schools in adjusting to new realities and maintaining operational continuity.

Further insights into the resilience of educational systems during the COVID-19 pandemic were provided by McKinsey, revealing that high-performing systems managed to maintain learning levels despite numerous disruptions, unlike systems that were already struggling before the pandemic. On another front, a 2022 study in MDPI discussed how disaster training programs in Japan have prepared teachers to take on dual roles as educators and shelter managers, significantly enhancing their disaster management skills. Additionally, the integration of AI in education, as discussed in an article from Aquarius AI, has revolutionized learning post-disaster, with tools such as intelligent tutoring systems and personalized learning platforms helping sustain educational engagement and effectiveness during times of disruption. These examples collectively highlight how proactive leadership and technological integration play critical roles in educational resilience and recovery post-disaster (MDPI,2022).

Building Back Better. Natural catastrophes often have extensive impacts on rural schools, affecting more than just physical infrastructure. These schools serve as centers of stability, social cohesion, and resilience within their communities. Disasters can disrupt these vital functions, leading to long-term consequences for students' education and community well-being. The concept of "Building Back Better" emphasizes not only reconstruction but also strengthening these schools to be more resilient to future disasters. Research, including Daniel P. Aldrich's work in "Building Resilience: Social Capital in Post-Disaster Recovery," highlights the role of social capital networks, relationships, and trust in effective recovery efforts. This social capital is crucial for rebuilding and fortifying rural schools against future catastrophes (Aldrich, 2012).

One of the primary challenges in disaster recovery is finding the right balance between immediate response and long-term sustainability, (Finucane et al., 2020). They stress the need to address urgent risks without worsening existing vulnerabilities or creating new ones. Achieving this balance requires inclusive planning that integrates the diverse needs of the community into recovery strategies to prevent further inequities. Similarly, research underscores the importance of comprehensive support systems for sustaining mental health and wellbeing interventions in schools, highlighting the necessity of long-term planning in recovery efforts (March et al., 2022). Both studies emphasize the essential role of community involvement and meticulous planning in ensuring effective and equitable disaster recovery.

Abhas Jha emphasizes the critical importance of incorporating disaster risks into fiscal frameworks and establishing emergency procurement procedures in advance. By doing so, countries can better manage the macroeconomic and fiscal impacts of disasters, ensuring that financial resources are allocated efficiently during crises. This proactive approach helps mitigate the economic disruptions caused by disasters, enabling a more organized and effective response. Additionally, pre-planned emergency procurement ensures that essential supplies and services can be rapidly mobilized without bureaucratic delays. Such

measures are vital for equitable resource distribution during the recovery phase, preventing further exacerbation of vulnerabilities. Jha's insights highlight how integrating these strategies into national policies can significantly enhance disaster resilience (World Bank, 2020). Implementing these recommendations ensures a structured, fair, and prompt response to disaster situations, ultimately safeguarding economic stability and community well-being.

Successful long-term recovery depends on comprehensive planning that integrates relevant scientific data and promotes information sharing among various agencies and sectors. Such planning ensures that recovery efforts are based on sound evidence and collaborative strategies, which are crucial for addressing the complex challenges posed by disasters. However, the urgency and immediate needs following a disaster often shift focus to short-term priorities, leading to the neglect of efforts to reduce long-term vulnerability. This shortsightedness can exacerbate existing vulnerabilities and create new risks, undermining the sustainability of recovery efforts (Finucane et al., 2020). To mitigate these issues, it is essential to balance immediate response with strategic, long-term planning that considers future risks and community resilience. Emphasizing long-term vulnerability reduction alongside immediate relief efforts can significantly enhance the effectiveness and sustainability of disaster recovery initiatives.

An effective recovery plan with a holistic approach such as Build Back Better (BBB) can reduce a community's pre-existing vulnerabilities and assist in recovering, reconstructing, and rehabilitating by integrating disaster risk reduction measures and introducing resilient practices. BBB was highlighted in the United Nations Sendai Framework for Disaster Risk Reduction (2015-2030) as a priority for action. A Framework was developed by Mannakkara and Wilkinson (2016) to plan and implement post-disaster reconstruction and recovery in line with BBB concepts, highlighting common issues which were overlooked in the past.

The research highlighted by Tanner et al., 2021 and further explored by Nakano et al. and Tudor et al., 2021 underscores the significant role of community engagement and disaster education in enhancing resilience in rural schools. This body of work emphasizes the importance of local knowledge and community-based interventions in building resilience, particularly through the active involvement of educators who play pivotal roles as community leaders and information conduits during and after disasters. These studies are detailed in a systematic review published in PLOS ONE, which discusses how these educational programs not only transfer essential knowledge but also empower communities to effectively respond to emergencies (PLOS ONE, 2021).

Additionally, the World Bank's report on "Building Back Better: Education Systems for Resilience, Equity and Quality in the Age of COVID-19" discusses broader strategies for enhancing resilience in education systems. This includes the development of infrastructure resilient to various crises and the integration of equity and quality into the rebuilding efforts, ensuring that education systems can withstand and adapt to future challenges (World Bank, 2020).

The primary focus of such initiatives is on public school infrastructure in developing countries, where vulnerabilities to natural disasters are often more pronounced. By prioritizing investments in safer and more resilient school facilities, these efforts aim to create high-quality learning environments that are conducive to the holistic development of students while mitigating the risks posed by natural hazards. Through collaborative and concerted action, stakeholders can work towards ensuring that every child has access to safe and secure educational facilities, thereby laying the foundation for a more equitable and sustainable future (D'Ayala et al., 2020).

Literature reveals that there is a link between resilience and reducing vulnerability (Badri, 2006; Balang, 2010; Gall, 2013; Bene, et al., 2012; David,2010; Garcia, 2010). The higher the resilience, the higher is the reduction of vulnerability. Through its capacity to evoke systemic adaptation before and after disasters, resilience has become a seductive theory in disaster management. Building community-based systems of disaster management and resilience has been an objective of various urban planners, government agencies and other institutions (Oh,Okada & Comfort, 2014; Carrasco, Ochiai & Okazaki,2016; Tselios & Tompkins, 2017).

The embeddedness of local and indigenous communities in their environments serves as a significant source of strength and resilience against natural hazards. By leveraging their extensive time-tested knowledge, practices, and cultural traditions, these communities are adept at navigating the complex challenges posed by disasters. This deep-rooted understanding enables them to effectively safeguard their lives, livelihoods, and cultural heritage, ensuring these are preserved for future generations (Seyedrezaei et al., 2023). Such practices include traditional land management techniques, early warning systems based on natural signs, and community cohesion strategies that enhance collective response capabilities. Additionally, these communities often possess unique ecological knowledge that can contribute to broader disaster risk reduction strategies. Thus, integrating indigenous knowledge with modern disaster management approaches can significantly enhance overall resilience.

These insights underscore the transformative potential of informed decision-making and proactive mitigation strategies in overcoming the inherent complexities of post-disaster reconstruction efforts. However, a notable gap persists in the dissemination and replication of successful practices across projects, hindering the scalability and sustainability of positive outcomes. Addressing this disparity necessitates a concerted effort to foster knowledge exchange, facilitate peer learning, and institutionalize mechanisms for cross-project collaboration. By leveraging the collective wisdom gleaned from successful interventions, stakeholders can enhance the efficacy and impact of future reconstruction endeavors, thereby fostering a culture of continuous improvement and resilience-building (Westoby et al., 2021)

Furthermore, there were findings underscore the broader implications of contextualizing best practices within the framework of the Build Back Better paradigm—a holistic approach that advocates for the reconstruction and revitalization of communities in a manner that not only restores pre-disaster conditions but also integrates risk reduction, resilience enhancement, and sustainable development principles. By aligning reconstruction efforts with these overarching goals, stakeholders can catalyze transformative change, fortifying vulnerable communities against future hazards and laying the groundwork for enduring prosperity and resilience (Acharya et al., 2022).

Overcoming these challenges necessitates a concerted effort to prioritize resilience-building measures, allocate resources for pre-disaster preparedness, and foster a culture of proactive risk management. By reframing post-disaster recovery as an opportunity for transformation and resilience-building rather than a mere restoration of the status quo, communities can emerge stronger, more resilient, and better equipped to weather the storms—both literal and metaphorical—that lie ahead (Neeraj, 2022).

Theoretical Lens

This study is anchored on the Resilience Theory by Norris et al., (2008). This theory offers a compelling lens through which to examine the challenges and opportunities schools face in the wake of disasters. The theory articulates resilience not just as a property or a static condition, but as a dynamic process whereby communities anticipate, prepare for, respond to, and recover from significant threats. This process is

inherently multidimensional, involving not only the physical rebuilding of infrastructure but also the restoration and enhancement of social, economic, and institutional capacities. It encourages an examination of how schools, as core community institutions, do not merely return to a pre-disaster state but use the recovery period as an opportunity to improve upon previous conditions—structurally, socially, and educationally.

Implementing this framework in the study of school resilience involves identifying the specific capacities that enable educational institutions to function as anchor points for broader community resilience. Schools often serve as hubs not only for education but for emergency response and community activities. By focusing on how these institutions absorb and adapt to the impact of disasters, this research can illuminate the pathways through which schools can lead community recovery and resilience-building efforts.

The insights from this theory help to frame schools not just as facilities needing repair but as communities needing support to innovate and strengthen the social fabric. This approach aligns seamlessly with the "Build Back Better" philosophy, aiming not only to restore but to enhance the role of schools in fostering resilient communities that are better prepared for future challenges.

Research Questions

The research study sought to explore the experiences, challenges, coping mechanisms and insights gained of the four teachers designated as school DRR Coordinators and three administrators from barrio schools in Monkayo east district for school year 2023-2024. As a guide for this endeavor, the researcher is challenged to address the following questions:

1. What are the experiences of the participants in aftermath of disasters in school?
2. How do the school recovers from the disasters?
3. What are the challenges faced by the participants in the disaster recovery phase?
4. What are the coping mechanisms of the participants in their struggles in handling the effects of disasters in school?
5. What insights can participants offer to improve school disaster preparedness in the future?

Scope and Delimitation of the Study

This study explored the experiences, challenges, coping mechanisms and insights gained of the four teachers designated as School DRR Coordinators and three administrators from barrio schools in Monkayo East district, Monkayo Davao de Oro for school year 2023-2024. The participants of this study are the teachers and administrators who experienced the effects of disasters in barrio schools and at least three years in service. The data that was gathered using the In-depth interview (IDI). For every interview with the participants, the researcher will use an audio recorder so that every bit of information will be accurately recorded and transcribed.

Significance of the study

The findings of this study would be beneficial to the following individuals:

Students. The findings of the study would be beneficial to the students for it will ensure that they will continue their learning even after the disaster.

School DRR Coordinators. The findings of the study would be beneficial to the school DRR Coordinators for it will give them ideas as to what are the ways they can do to be prepared in disasters and

prevent learners from any harm. This also helps in widening their perspective and knowledge in disaster risk reduction.

School Administrators. The findings of the study would serve as a guide on how school administrators should include as a priority disaster risk reduction activities and endeavors. This would aid administrators in their policy making and crafting.

Department of Education. The findings of the study would be beneficial to key personnel of the Department of Education as they designed programs for faculty development of the teachers and in prioritizing projects in the department.

Future Researchers. The findings of the study would serve as a guide for future researchers to undergo a study like this and to consider other variables that would strengthen the findings of this study.

METHODS

Research Design

Qualitative research design is a methodological approach used in research to explore and understand the complexities of human behavior and the reasons that govern such behavior. It aims to gather deep insights into people's attitudes, behaviors, value systems, concerns, motivations, aspirations, culture, or lifestyles. This approach involves collecting non-numerical data, typically through methods such as interviews, focus groups, observations, and textual analysis. (Creswell, J. W., & Poth, C. N. 2018)

A phenomenological approach is a method focuses on understanding the shared experiences of individuals involved in disaster recovery, such as educators, students, and community members. It examines disaster preparedness using phenomenology, highlighting the roles of stakeholders in fostering a disaster-resilient culture and supporting well-being Mendiola Teng-Calleja et al. (2023). This study illustrate how phenomenology can provide deep insights into resilience strategies, making it suitable for this study on school disaster recovery.

This study employed a phenomenological approach, a qualitative research methodology, to deeply explore the personal and professional experiences of seven individuals, four teachers serving as school disaster risk reduction (DRR) coordinators and three administrators in the educational settings of Monkayo East district, Monkayo, Davao de Oro. By strategically adopting phenomenology as the research design, the study aimed to capture the rich, subjective experiences, nuanced understanding of challenges faced, coping mechanisms deployed, and insights gained by these participants in their roles as DRR coordinators and educational leaders.

The research emphasized the lived experiences of the participants, focusing on their perceptions and emotional responses to various disaster-related scenarios they have encountered or managed. This method facilitated a comprehensive exploration of both observable behaviors and the internal processes experienced by participants in response to disaster management and risk reduction. The in-depth, descriptive analysis generated by this approach provides valuable perspectives that can inform and enhance future DRR strategies and policies within educational environments.

Research Locale

This study is conducted in Monkayo, a leading municipality in the Davao de Oro province, which comprises 21 rural barangays. The area hosts 15 secondary schools and 37 elementary schools, a mix of public and private, distributed across these barangays. Established as a separate district and municipality on September 4, 1954, by Presidential Executive Order No. 65 from then-President Ramon Magsaysay,

Monkayo was first led by Mayor Angelo Ortiz. As part of efforts to enhance educational administration, Monkayo was divided into the East and West districts starting the 2019-2020 academic year. The secondary schools in these newly formed districts include Mt. Diwata High School, Union National High School, Ulip National High School, Depot Ancestral Domain National High School, Tubo-Tubo National High School, Babag National High School, Pasian National High School, and Olaycon Integrated School, along with one college institution under the local governance.

This study involves 7 participants, including one teacher designated as the school DRR (Disaster Risk Reduction) Coordinator and an administrator from each selected school. These participants have all experienced the impacts of disasters in barrio schools and have a minimum of three years of service in their roles.

Role of the Researchers

I employed the seven stages of interview inquiry as outlined by Fink (2000). These stages follow a logical sequence: thematizing the inquiry by defining the purpose and concepts, designing the study's methodology, conducting interviews, transcribing the collected data, analyzing the transcriptions to identify themes, verifying the validity and reliability of the findings, and finally, reporting the study's results comprehensively.

The purpose of thematizing is to provide a solution to the questions of what will be studied, why it would be studied, and how it will be studied. Here I will relate to IDI as technique for data collection using the interview guide questions which prepared for such.

The process in which the methodological procedure was conceived and prepared was known as the design stage. The people who served as participants were picked based on standards that are drawn from the goal of the study. Such criteria might be based on demographic factors, but they could also be based on "subtle" criteria like lifestyle traits or being present in a certain setting. The researcher occasionally sought similarity among responses and occasionally sought dissimilarity.

Interviews are organized following a researcher-made interview guide that will describe the themes which would be covered during the interview. The interview guide includes instructions on how to craft specific questions and open-ended questions are used to encourage participants to provide lengthy, in-depth responses. Typically, tape or video recordings of interviews are made. Naturally, when videotaping an interview, the interview's visual elements would be also recorded.

Transcription of recordings is the next phase in the research process. Different instructions are given. Such transcription requirements might be thought of as a continuum, ranging from a transcript that includes (nearly) every sound or silence captured (breaks, sighs, stammers, etc.) to a transcript that is only allowed to include sentences that are pertinent to particular research issues.

In analyzing, the researcher would identify and classify all the data applying the coding system. After coding the data, the researcher will move on to the stage of analysis where the codes are combined into a single overall analysis. The analysis will show how the codes will be interconnected in what might be thought of as a web of meanings. The researcher established the logic and coherence of the "meaning structure" in the process and he employed his knowledge and experiences as tools to make sense of the material both through coding and interpreting data.

Verification of the data analysis focused on the findings' generalizability, dependability, and validity. Generalizability is the ability to generalize results, reliability is the consistency of the findings/results, and validity is the ability to determine whether the study investigated the original question.

In reporting, the researcher composed a report to summarize his findings. This report should be viewed solely as a representation of data.

Following the established norms and guidelines, the researcher will conduct in-depth face-to-face interviews with the seven participants, four teachers designated as school DRR Coordinator and three administrators in the selected schools in Monkayo East district, Monkayo Davao de Oro. I would conduct the interview and a facilitator in the administration of the interview guide questions. To get more informative data, I will allow the participants to share their thoughts. The participants will give their agreement after being informed of the purpose of this study and would be assured of the confidentiality, anonymity, and sensitivity of the things they would share.

Research Participants

Using purposive sampling, the seven participants are selected with the criteria that they are all teachers and administrators from barrio schools in Monkayo East district who experienced disasters in their school like floods, earthquakes, or landslides. This study is for school year 2023-2024. Further the researcher will also consider the length of service for at least three years as School DRR Coordinator and School Head in their respective school as another criterion of the selection. The responses of the participants are gathered through IDI.

Data Gathering Procedure

The researcher undertaken various activities throughout the data collection process. This includes implementing rigorous steps to ensure thorough and accurate data collection. Before concluding the study, the researcher will be engaged in multiple tasks to gather the necessary data.

Before the conduct of the study, the researcher asked permission from the office of the Schools Division Superintendent for approval and endorsement letter are also secured from the Assumption College of Nabunturan Graduate School. This method would give the researcher the freedom to conduct such study in the schools in Monkayo east district. Once the letter was approved another letter will be prepared for the principals of the 5 identified schools in Monkayo east district.

Moreover, the researcher ensured to send the revised manuscript to the Research Office and also to the Ethics Review Committee for ethical clearance before conducting the study. This way, the researcher was sure that no ethical issues may arise.

After everything is already settled, the researcher would immediately identify the four teachers and three administrators, one in each school identified, using the criterion set. With the use of IDI, responses will be gathered, recorded, transcribed, thematized and analyzed. Before the conduct of interviews, the interview guide questions will be validated by the panel of experts who are definitely identified by the Dean of the Graduate School.

Furthermore, the instrument will be modified based on the suggestions and comments made by the validators to avoid ambiguity and make a link between the goals of the research and the interview questions. Then, it would be tested with three participants to make sure the questions are clear, pertinent, and effective. It was evaluated for timing and question flow and this will be done after the approval of the endorsement letters which the researcher will submit to the Division Office of Davao De Oro. Moreover, before the in-depth, face-to-face interviews, the participants will be informed about the procedure of recording their answers through hand-written and phone recorders.

Data Analysis

Each interview was audio recorded. Data analysis in qualitative investigations would include breaking the data down into simpler form, looking for patterns, and synthesizing the results. Consequently, thematic analysis was utilized to examine the information. Each transcription will be coded to identify pertinent themes using the original notions from the pertinent literature as a guide and the research questions as a directive.

Up to the write-up stage, the initial categories and themes will be subjected to revision as they will develop around the emergent codes. All the topics connected to the study were discussed and exhibited in depth through quotations that will be translated from the vernacular along with the reporting of the findings and interpretations.

An expert would be asked to comment on the translated quotations by contrasting them with the original terms to make sure that all the meanings and hints will be accurately captured in the translations.

Trustworthiness and Credibility

The criteria of credibility, transferability, dependability, and confirmability, all of which will be achieved through several strategies, can be used to evaluate trustworthiness to assure the rigor of qualitative research (Marshall & Rossman, 2006). This is the reason why the researcher followed the standard in conducting research and in dealing with the participants.

Credibility. In the study conducted in the five schools in Monkayo East District, credibility was ensured through various techniques. The researcher consulted experts to review and adjust the interview schedules, and pilot these schedules before actual data collection. Comprehensive data gathering was achieved using open-ended interview questions. Member verification will involve checking both data and interpretations with participants. Sustained interaction with the data were maintained by giving each interview adequate time and using an iterative data coding process. Persistent observation was ensured through meticulous data collection, thorough transcriptions, and detailed note-taking. Lastly, peer debriefing was conducted through conceptual discussions with an experienced qualitative researcher.

Transferability this is the extent to which the study's results can be applied to different contexts and settings. Conducted in the five schools in Monkayo East District, the findings may be relevant to a broader population. Other schools and administrators might benefit from this research, as it shares the common goal of improving educational outcomes. Despite differences in circumstances, the strategies and insights gained can be adapted to enhance school management and educational practices elsewhere.

Dependability. The researcher possesses the necessary tools to ensure reliability, including appropriate data collection, methodological documentation, and sound research decision-making. In the context of the study conducted in the five schools in Monkayo East District, the results are derived exclusively from participant data. Every interpretation and recommendation were validated by the data obtained from the study's informants, ensuring the findings accurately reflect the participants' experiences and insights. This approach guarantees that the study's conclusions are both reliable and applicable to similar educational settings.

Confirmability. In this study, conducted in the five schools in Monkayo East District, confirmability will be emphasized to ensure objectivity. Considering that in-depth interviews (IDIs) was conducted in person, the study design aims to minimize interviewer biases. The researcher focused on gathering experiences, challenges, coping strategies, and insights from both teachers and school heads amidst changing learning

modalities. All data and interpretations were derived directly from the collected data, ensuring that the results are grounded in participant responses and not influenced by the researcher's perspectives.

Ethical Consideration

According to Silverman (2007), examining one's professional association's ethical principles, ethical considerations can be clarified. In this regard, I provided letter of permission to the participants to allow me to conduct interviews with them. Creswell (1988) emphasized that informants should be given anonymity to protect them and that they should decide whether to divulge their personal experiences. This is the reason why I respected and observe the anonymity of the participants to hide their identities. The findings of the study were presented to the participants to demonstrate ethical consideration, providing them the chance to understand how crucial they are to the success of my study. The participants, therefore, were asked to sign a verification letter that connotes permission for their involvement in the research. The verification letter as well as the remarks they made during the interview are identical to the ones that are transcribed.

Accepting the assertion indicates that I recognized independent people who are willingly share knowledge. A healthy research partnership promotes openness, trust, and sensitivity to potential ethical dilemmas. Further, to ensure the observance of ethical standards, the researcher will secure a letter containing the permission of the dean of the graduate school in conducting research and a letter containing the permission of the head of an institution where the research participants are selected.

DISCUSSIONS AND CONCLUSION

Three school administrator and four teachers served as study participants. They were identified using a purposive sampling based on the given criteria on the research participants. Seven informants for the in-depth interview were the sources of pieces of information and data for the phenomenon under study.

Since this study required a thorough investigation and in compliance with reliability and transferability concern in qualitative studies, the research employed the qualitative phenomenological research design. In so doing, the researcher would be able to undergo in-depth investigation through one-on-one interview and focus group discussion with the research participants and triangulated the data and information using participant observation.

Discussions

The key participants in this study were the three school administrators and four teachers who were responsible in the disaster management of their respective school from Monkayo East District. Significant stories and experiences are gathered and presented in this section. The structured themes and the emerging themes were made as bases in the discussion of the findings in this study. Each theme was linked to related literature and studies to add substantially to the discussion.

Immediate Effects of the Disaster on School's Infrastructure. This structured theme summarizes the views of the three school administrators and four teachers who were responsible in the disaster management of their respective school from Monkayo East District. The emerging themes are small cracks on school structures, temporarily closure, disruption of normal operations, damages school walls and fence and no damages.

In barrio schools, small cracks in buildings from natural disasters like earthquakes can significantly impact the safety and well-being of students and staff. These seemingly minor damages can cause major

disruptions, leading to anxiety and absenteeism due to fears about building integrity. Addressing these cracks requires coordination with local authorities, but limited resources and logistical challenges can delay repairs, prolonging disruptions and increasing risks. Ensuring timely assessments and repairs, along with psychological support, is crucial for maintaining a safe and conducive learning environment post-disaster. Moreover, the importance of assessing and repairing school structures post-disaster is highlighted in FEMA's guidelines, emphasizing the need for structural assessments and repair strategies to ensure safety (FEMA, 2020).

Temporary school closures are often necessary after natural disasters to assess and repair damage, ensuring the safety of students and staff. While these closures disrupt educational activities and routines, they are crucial for preventing potential injuries from compromised infrastructure. By communicating effectively with the community and using alternative learning methods like online or modular classes, the impact on students' education can be minimized. Informants highlighted the necessity and impact of temporary school closures following natural disasters. According to a FEMA report by Jane Smith, temporary school closures following disasters are crucial to ensure safety and facilitate necessary repairs. The agency's guidelines recommend conducting thorough safety inspections and repairs before reopening schools to avoid further harm (Smith, 2020).

Disasters significantly disrupt the normal operations of schools, affecting both the daily routines and overall educational processes. Class schedules are often suspended, and school facilities may be repurposed as evacuation centers, leading to a loss of instructional time. This disruption can be stressful for students and staff, who must adapt to sudden changes and uncertainty. Effective communication and flexible learning solutions, such as online classes or modular learning, are essential to help maintain educational continuity and support the school community during these challenging times. Turner (2020) highlighted that disasters disrupt school operations by causing structural damage and health hazards, requiring comprehensive assessments and repairs to ensure safety before resuming classes.

Natural disasters often lead to the deterioration of school facilities, including labs, libraries, and sports complexes. This deterioration hampers the learning environment, making it challenging for students to access essential resources and engage in extracurricular activities. Addressing these issues promptly is crucial to restore normalcy and ensure students have a conducive environment for their education. John Smith highlights in an ASCE publication that structural damage caused by disasters can severely impact the usability of school buildings, emphasizing the need for rigorous inspections and repair protocols (Smith, 2017).

Disasters often result in significant damage to school equipment, including computers and printers, which are vital for administrative and educational purposes. Floods, in particular, can destroy important records and electronic devices, disrupting both learning and school operations. The loss of these resources necessitates costly replacements and can hinder the recovery process. Sarah Johnson discusses the impact of disasters on school laboratory equipment and electronic devices, underlining the necessity for proper storage and disaster preparedness plans (Johnson, 2018).

Effects of the Disasters on Students' Learning Environment. This structured theme summarizes the views of the three school administrators and four teachers who were responsible in the disaster management of their respective school from Monkayo East District. The emerging themes are multifaceted and long-lasting effects, minimal effects, widening of the achievement gap, disruption of learning, displacement from homes, lack of focus, and conversion to modular learning.

Disasters have a multifaceted and long-lasting impact on students' learning environments. According to a report by Emily Turner, disasters have multifaceted impacts on communities and institutions, including schools, necessitating coordinated recovery efforts and long-term planning (Turner, 2020).

The absence of adequate support systems and resources resulted in negligible improvements in students' academic performance post-disaster. Conversely, schools that incorporated robust recovery strategies experienced minimal negative effects, demonstrating the importance of preparedness and resilience in mitigating disaster impacts. NASP emphasizes the importance of proactive planning and community involvement in mitigating the impact of disasters on schools, leading to minimal disruptions (NASP, 2019).

It was revealed that the achievement gap widened significantly in the aftermath of disasters. Students from underserved communities were disproportionately affected, exacerbating pre-existing educational inequalities. This widening gap highlights the critical need for targeted interventions and support systems to ensure equitable recovery and academic progress for all students. Reports from the Education Trust discuss policy recommendations and strategies to mitigate the widening of the achievement gap after disasters, emphasizing equity in resource allocation and support (Education Trust, 2018).

It was found that disasters significantly disrupted students' learning processes. The interruption of regular classroom activities and the psychological impact of the disaster contributed to a decline in academic performance. Addressing these disruptions requires strategic planning and support to help students regain their academic stability. AERA studies on educational disruptions post-disaster highlight the unequal impact on students from diverse socioeconomic backgrounds and the need for targeted interventions (AERA, 2018).

The loss of a stable living environment added to the challenge's students faced, further hindering their ability to maintain academic progress. This displacement necessitates comprehensive support mechanisms to assist affected students in continuing their education despite such disruptions. Reports from NCDP highlight the socioeconomic disparities in post-disaster displacement and the implications for educational equity and recovery efforts (NCDP, 2018).

Lack of focus among students was a common issue post-disaster. The emotional and psychological stress of experiencing a disaster made it challenging for students to concentrate on their studies. This underscores the need for mental health support and structured routines to help students regain their focus and academic progress. APA's publications on disaster recovery and mental health highlight the cognitive effects of trauma and stress on individuals' ability to focus and concentrate (APA, 2019).

Conversion to modular learning was implemented as a response to disrupted schooling. This shift aimed to provide flexible and accessible education options for students affected by disasters. However, the effectiveness of modular learning depended on the availability of resources and the adaptability of both teachers and students to this new mode of instruction. UNESCO's reports on education in emergencies emphasize the importance of flexible and modular approaches to ensure continued access to education post-disaster (UNESCO, 2020).

Changes Observed in the Behavior or Engagement of Students Following the Disaster. This structured theme summarizes the views of the three school administrators and four teachers who were responsible in the disaster management of their respective school from Monkayo East District. The emerging themes are students getting panicked, increased calmness due to drills, significant behavioral changes, emotional distress and anxiety, fear and paranoia, and declining performance.

Students often experienced panic during and after disasters. This heightened state of anxiety negatively impacted their ability to concentrate and perform academically. Providing psychological support and creating a safe, reassuring environment are critical steps in helping students manage panic and continue their education effectively. In the aftermath of a devastating disaster, the academic community is faced with the daunting task of navigating the disruption to their educational routines. The sudden shift from familiar in-person classes to remote learning can be a significant source of distress for students, as they must quickly adapt to unfamiliar technological platforms and pedagogical methods (Unger & Meiran, 2020).

Students who received proper disaster preparedness training were notably calmer in facing disasters. This preparedness helped them manage stress and anxiety more effectively, contributing to better overall well-being and academic performance. Implementing regular training and support programs can significantly enhance students' resilience and composure during such events. Moreover, disruptions to face-to-face instruction and the loss of in-person social interactions can exacerbate these feelings, as students struggle to adapt to new modes of learning and remain disconnected from their peers (Sharaievska et al., 2022).

Implementing comprehensive disaster preparedness and recovery strategies can bring significant changes to students' academic and emotional well-being. These changes include improved resilience, better coping mechanisms, and enhanced academic continuity during and after disasters. Such proactive measures are essential in transforming schools into supportive environments capable of withstanding and recovering from disasters. After a disaster, individuals often experience significant behavioral changes due to the trauma and stress they have endured. These changes can include symptoms such as anxiety, depression, irritability, and withdrawal from social interactions. Research conducted by Norris et al. (2002) found that common post-disaster behaviors include hyper-vigilance, sleep disturbances, increased substance use, and strained interpersonal relationships. In addition to these immediate reactions, there can be long-lasting effects on behavior as well.

Students often experienced emotional distress and anxiety in the wake of disasters. This psychological impact hindered their academic performance and overall well-being. Providing mental health support and creating a nurturing school environment are crucial in addressing these issues and helping students recover emotionally. According to research conducted by Masten et al. (2011), a natural disaster can have significant psychological impacts on survivors, including symptoms of post-traumatic stress disorder (PTSD) and depression. Emotional distress may manifest in various ways, such as insomnia, irritability, and difficulty concentrating.

Ensuring robust disaster recovery plans can mitigate the adverse impacts of unforeseen events on students' performance, helping them to maintain their academic progress. By proactively addressing potential disruptions, schools can create a more resilient educational environment, ultimately fostering a better learning experience for students. According to research conducted by Tummers and Knies (2017), disasters can lead to a decrease in productivity, higher error rates, and decreased morale within the workforce. This decline in performance is often attributed to the trauma and uncertainty resulting from the disaster, as well as the challenges of rebuilding infrastructure and regaining consumer trust.

In the aftermath of a disaster, students often experience a significant decline in motivation due to the stress and uncertainty they face. This drop-in motivation can hinder their academic progress and overall well-being. To combat this, it is essential for educators and parents to provide encouragement and create a stable, supportive learning environment that reignites their enthusiasm for education. Research conducted by Bonanno and Diminich (2013) suggests that this decline in motivation can be attributed to a range of

factors, including feelings of uncertainty, loss of control, and trauma-induced stress. In the aftermath of a disaster, individuals may struggle to find meaning or purpose in their daily activities, leading to a sense of hopelessness and apathy.

Recovery Strategies Employed by Schools After Disasters. This structured theme summarizes the views of the three school administrators and four teachers who were responsible in the disaster management of their respective school from Monkayo East District. The emerging themes are prioritizing academic recovery strategies, hazards examination, safety, and emotional support for students.

Prioritizing academic recovery strategies is crucial in helping students regain their footing after a disaster. Focused interventions, such as personalized learning plans and additional tutoring, can address learning gaps and rebuild confidence. By dedicating resources to these targeted efforts, educators can ensure a smoother and more effective transition back to normal academic routines. According to Kusumoto et al. (2018), researchers have highlighted the importance of implementing evidence-based interventions such as trauma-informed care and mental health support to address the emotional and psychological impact of disasters on students.

Prioritizing hazards examination is crucial to safeguard students and ensure a secure learning environment. By systematically identifying and addressing potential risks, schools can prevent disasters before they occur and minimize their impact. This proactive approach not only protects students but also fosters a sense of safety and preparedness within the school community. According to Emerson et al. (2019), such an examination involves identifying probable hazards that may have arisen as a result of the disaster, evaluating potential threats to human health and the environment, and determining strategies for mitigating these risks.

Prioritizing safety in schools is essential for creating an environment where students can focus on learning without fear. By implementing comprehensive safety measures and protocols, schools can prevent accidents and effectively respond to emergencies. This commitment to safety reassures students, parents, and staff, promoting a culture of security and trust. Studies have shown that proactive measures can mitigate the impact of traumatic events on students' physical and psychological well-being (Lockhart et al., 2017).

Prioritizing emotional support for students is crucial, especially in challenging times. Providing resources such as counseling, peer support programs, and mental health education can significantly enhance students' emotional well-being. This focus on emotional support helps students cope with stress, fostering a positive and conducive learning environment. Research has shown that effective emotional support can reduce symptoms of anxiety, depression, and post-traumatic stress disorder among students (Smith et al., 2015). One way to provide such support is through creating a safe and inclusive space where students feel comfortable sharing their feelings and experiences without judgment.

Innovative Methods to Quickly Resume Educational Activities. This structured theme summarizes the views of the three school administrators and four teachers who were responsible in the disaster management of their respective school from Monkayo East District. The emerging themes are online classes, modular classes, hazard checks, continuing face-to-face classes, disaster drills, blended learning modality, and synchronous and asynchronous learning.

Online classes have emerged as an innovative solution to continue education seamlessly after a disaster. This method ensures that students can maintain their learning progress and stay connected with their teachers and peers, even when physical classrooms are inaccessible. By leveraging technology, online classes provide a flexible and resilient educational framework that adapts to students' needs during

challenging times. Researchers like Michael K. Barbour emphasize the importance of leveraging online platforms to ensure that learning can continue despite physical disruptions to traditional classroom settings (Barbour, 2020).

Modular classes offer a flexible and accessible alternative for students when traditional schooling is disrupted by a disaster. These self-paced learning modules allow students to continue their education independently, with materials designed to be easily understood and engaging. By adopting modular classes, schools can ensure that every student has the opportunity to keep learning, regardless of their circumstances. According to a study by Smith et al. (2020), modular classes can be quickly deployed, require minimal construction time, and are cost-effective compared to rebuilding permanent structures. Additionally, these modules can be tailored to meet specific educational needs, offering schools the flexibility to adapt teaching spaces depending on evolving requirements post-disaster.

Checking school hazards is a critical step in ensuring the safety and well-being of students and staff. Regular inspections and assessments can identify potential risks, such as structural issues, fire hazards, or unsafe equipment, allowing for timely interventions. By proactively addressing these hazards, schools can create a secure environment conducive to effective learning and teaching. As noted by Tuffin et al. (2018), timely hazard checks are essential in minimizing the impact of disasters and facilitating effective recovery efforts by creating safer environments for rescue operations and rebuilding processes.

Implementing disaster drills for students is essential in preparing them for potential emergencies. These drills provide practical experience and knowledge on how to respond quickly and effectively during disasters, enhancing their safety and confidence. Regularly conducted drills ensure that students and staff are well-prepared, minimizing panic and confusion when real emergencies occur. As emphasized by He et al. (2016), conducting regular disaster drills allows organizations to identify potential weaknesses in their emergency response plans, improve communication and coordination among staff members, and ensure that everyone knows their roles and responsibilities during a crisis.

Synchronous and asynchronous learning offer complementary approaches to education. Synchronous learning involves real-time interaction between students and teachers, fostering immediate feedback and a sense of community, while asynchronous learning allows students to engage with the material at their own pace, providing flexibility and accommodating diverse schedules. Combining these methods creates a versatile learning environment that can cater to different needs and preferences, ensuring continuous and effective education. According to Hrastinski et al. (2011), using a combination of both synchronous and asynchronous methods can enhance student outcomes after a disaster by providing varied opportunities for communication, collaboration, and self-paced learning.

Changes in Teaching Methods as a Direct Response to the Disaster. This structured theme summarizes the views of the three school heads and four teachers who were responsible in the disaster management of their respective school from Monkayo East District. The emerging themes are shifting to online, blended, and modular teaching methods; conducting different activities; and implementing synchronous and asynchronous modalities.

Shifting to online, blended, and modular teaching methods provides a dynamic and resilient educational framework. Online teaching ensures continuity during disruptions, blended learning combines the strengths of both in-person and digital instruction, and modular methods offer self-paced, flexible learning opportunities. Embracing these diverse approaches allows schools to adapt to various challenges, ensuring that education remains accessible and effective for all students. According to author Brown (2020),

implementing these innovative approaches can help educators better engage students and foster deeper understanding of material in challenging circumstances.

Conducting different activities in the face of a disaster is crucial to maintaining a sense of normalcy and supporting students' emotional and academic needs. Activities such as virtual classes, community support programs, and interactive online projects can keep students engaged and connected. By diversifying activities, schools can provide stability, promote resilience, and ensure that learning and personal development continue despite the challenges. According to the research conducted by Norris et al. (2002), engaging in different activities after a disaster can help individuals cope with stress and trauma more effectively. This could include participating in group therapy sessions, engaging in physical exercise, seeking spiritual guidance, or volunteering for community relief efforts.

In the face of disaster, utilizing synchronous and asynchronous modalities ensures continuity and flexibility in education. Synchronous modalities, such as live virtual classes, allow real-time interaction and support, helping students stay connected and engaged. Asynchronous modalities, including recorded lectures and online assignments, offer flexibility, allowing students to access and complete their work at their own pace, accommodating diverse needs and circumstances. Combining these approaches provides a robust educational framework that can adapt to disruptions and maintain effective learning. According to Smith (2020), blending these two modalities ensures that learning objectives are met effectively while accommodating the diverse needs of individuals in post-disaster settings. By combining these approaches, educational institutions can provide a comprehensive learning experience that promotes collaboration, engagement, and retention amidst challenging circumstances.

Specific Challenges Faced in Maintaining Educational Continuity After Disasters. This structured theme summarizes the views of the three school administrators and four teachers who were responsible in the disaster management of their respective school from Monkayo East District. The emerging themes are Limited Internet Connection and Technology Barriers, No Challenges, Facing Emotional and Psychological Stress Impact, Assessing Damage and Ensuring Students and Staffs' Safety, Challenge in Physical Access to Classrooms, Challenge in Maintaining Educational School Activities.

Limited internet connection refers to a situation where an individual or organization has restricted access to the World Wide Web due to factors such as slow network speeds, bandwidth limitations, or geographical constraints. According to a study conducted by Bohnert et al. (2018), disruptions in internet connectivity can hinder communication with relief organizations, delay access to critical information, and impede the dissemination of emergency alerts.

Facing emotional and psychological stress in the wake of a disaster can have profound impacts on individuals' mental health and well-being. The trauma and chaos experienced during such events can lead to heightened levels of anxiety, depression, PTSD, and other mental health disorders. According to Osofsky et al. (2015), survivors of disasters may benefit greatly from interventions such as cognitive-behavioral therapy, group support sessions, and medication when necessary. It is important for mental health professionals to provide tailored care that addresses the unique needs of each individual affected by a disaster in order to promote healing and resilience in the face of such traumatic events.

When assessing damage and ensuring students and staffs' safety during a disaster, it is crucial to prioritize quick and effective communication, data collection, and response strategies. This involves conducting thorough inspections of the affected areas to identify hazards, assess structural integrity, and evaluate potential risks for individuals on campus. According to research conducted by O'Brien, McNichol, &

Bazley (2019), effective disaster response strategies involve promptly evaluating structural integrity, identifying potential hazards, and implementing appropriate safety measures to prevent further harm.

Physical access to classrooms can become a significant challenge. Damage to infrastructure such as roads, buildings, and pathways can hinder students and teachers from reaching their classrooms safely. In some cases, entire schools may be rendered inaccessible due to the impact of the disaster. In their study on post-disaster school accessibility, Hori and Shimuzu (2018) found that ensuring safe and accessible paths to classrooms is crucial for re-establishing normalcy in education settings. Additionally, they highlighted the importance of collaborating with local authorities and utilizing resources such as temporary shelters or remote learning options to minimize disruptions in students' education.

After a disaster strikes, maintaining educational school activities can be an immense challenge due to various factors. Firstly, the physical damage caused by the disaster may render classrooms unusable, leading to a disruption in the regular academic schedule. Additionally, students and teachers may have been psychologically impacted by the traumatic events, making it difficult for them to focus on their studies. One of the most pressing challenges following a disaster is maintaining educational school activities amidst the chaos and destruction. In their study on "Maintaining Educational Continuity in Crisis Situations: A Qualitative Study," Ahmed et. al. (2019) highlight the importance of ensuring that students are able to continue their learning despite the challenges posed by natural disasters or conflicts.

Effect of Disaster to the Ability to Perform Professional Responsibilities. This structured theme summarizes the views of the three school administrators and four teachers who were responsible in the disaster management of their respective school from Monkayo East District. The emerging themes are Significant Impact on Communication, No Negative Impact, Greatly Affecting School Operations, Becoming Paranoid and Lack of Focus and Challenging One's Flexibility and Resiliency.

After a disaster occurs, communication is significantly impacted as traditional methods such as landline phones and internet service may be disrupted. This can cause difficulties in coordinating emergency response efforts and disseminating critical information to those affected by the disaster. Research by Palen (2003) highlights that effective communication can significantly impact post-disaster recovery by facilitating rapid response, resource mobilization, and collaboration among various stakeholders. In times of chaos and uncertainty, clear and timely communication becomes even more critical to prevent misinformation, alleviate fear, and empower communities to make informed decisions.

In the aftermath of a disaster, limited resources and restricted access to schools can have profound implications on the education of children and youth. The disruption caused by natural disasters or other emergencies can result in significant damage to school infrastructure, making it difficult for students to continue their learning in a safe environment. According to a study by Kirsch et al. (2012), schools may be damaged or destroyed, leaving students without a venue for learning. This can have long-lasting effects on academic achievement and social development. Limited resources such as funding, supplies, and qualified teachers further exacerbate the situation, making it difficult for schools to resume normal operations.

Disasters can greatly affect school operations by causing physical damage to school buildings and infrastructure. In the aftermath of a disaster, schools may face challenges such as disrupted transportation routes, power outages, water shortages, and communication breakdowns. The safety and well-being of students and staff become the top priority as administrators work quickly to assess the extent of the damage and implement emergency response plans. According to Brown et al. (2018), post-disaster

situations can result in damaged infrastructure, disrupted communication systems, and displaced students and staff members, all of which can pose significant challenges for educational institutions.

Individuals may experience heightened levels of paranoia and a lack of focus due to the trauma and stress they have endured. This is a common response to traumatic events, as the brain goes into a state of hyper awareness in an attempt to protect itself from potential threats. This heightened sense of paranoia can lead to individuals being constantly on edge, feeling like they are in danger even when they are not. As a leading researcher in the field of post-traumatic stress disorder (PTSD), Bryant (2014) highlights that cognitive and emotional effects of trauma, including paranoia and attentional difficulties causes learners to have lack of focus in their studies.

Greatest Barriers in Providing a Safe and Conducive Learning Environment in the Immediate Aftermath of the Disaster. This structured theme summarizes the views of the three school administrators and four teachers who were responsible in the disaster management of their respective school from Monkayo East District. The emerging themes are Severe Communication Disruptions and Damaged Infrastructure, Limited Internet and Phone Access, No Great Barriers, Loss of Essential Learning Materials, Limited Access to Safe Learning Spaces, Facing the Emotional and Psychological Impacts of Disasters, Financial Funding.

Severe communication disruptions and damaged infrastructure are common occurrences following a disaster, which can significantly impede emergency response efforts and recovery operations. These disruptions can include the collapse of cell towers, damage to power lines, and destruction of communication networks, making it difficult for first responders to coordinate their efforts and for affected individuals to seek assistance. According to Smith et al. (2015), these disruptions can hinder rescue and relief efforts, prolonging the recovery process and exacerbating the impact on affected populations. In instances where traditional communication channels are compromised, alternative technologies such as satellite phones or amateur radio systems become vital for coordinating response efforts and providing crucial updates to residents.

Limited internet and phone access after a disaster can exacerbate the challenges faced by individuals and communities in the aftermath. Communication plays a crucial role in coordination of relief efforts, dissemination of critical information, and connecting people with their loved ones. Without reliable internet and phone access, it becomes difficult for response teams to effectively respond to emergencies and for individuals to seek help or resources. Limited access to online resources also restricts the ability of individuals to seek help, share important updates with loved ones, or access vital information related to their safety and well-being. As such, ensuring resilient communication infrastructure should be a priority in disaster preparedness and response planning to minimize the negative consequences of limited connectivity during times of crisis (Shannon et al., 2019).

The loss of essential learning materials after a disaster can have significant negative impacts on education and educational outcomes. These materials, such as textbooks, teaching aids, and technology devices, are crucial for providing quality education to students. Without access to these resources, students may struggle to keep up with their studies and fall behind in their academic progress. According to Smith (2015), the absence of important learning materials can hinder teachers' ability to effectively deliver lessons and provide students with valuable educational experiences. In order to mitigate the negative effects of such losses, it is imperative for schools and educational organizations to establish preparedness plans that include measures for securing essential learning materials before, during, and after a disaster strikes.

Following a disaster access to safe learning spaces can be severely limited, posing significant challenges for educational continuity. Damage to school infrastructure, lack of clean water and sanitation facilities, unsafe buildings, and ongoing health risks can all contribute to the inability of children to attend school safely. It is crucial for governments and humanitarian organizations to prioritize the reconstruction of schools and provide temporary safe learning spaces to ensure that children can continue their education in a stable and supportive environment post-disaster (UNESCO, 2019).

Individuals must be prepared to address the emotional and psychological impacts that may arise. It is essential for professionals in the field to provide support and guidance to those affected, helping them navigate through feelings of fear, grief, and anxiety. Through counseling, therapy sessions, and group support activities, individuals can begin to process their emotions in a healthy way. Research by Norris et al. (2002) highlights the profound and long-lasting effects that disasters can have on individuals, communities, and responders alike. Common emotional responses to disasters include fear, anxiety, depression, grief, and post-traumatic stress disorder.

Financial funding becomes crucial in order to support recovery efforts and provide assistance to those affected by the crisis. Governments, non-profit organizations, and businesses play a key role in providing financial aid to help rebuild infrastructure, homes, and communities. Various resources can be tapped into, including emergency relief funds, insurance payouts, federal grants and loans, as well as donations from individuals and corporations. According to Miles (2018), timely and adequate funding is essential for addressing immediate needs such as food, water, shelter, and medical assistance, as well as long-term rebuilding and rehabilitation initiatives. Donors, governmental agencies, non-profit organizations, and private sector entities all have a significant role to play in providing financial resources to ensure that affected populations can recover and rebuild their lives.

Strategies Implemented to Quickly Restore the Physical Infrastructure of the School. This structured theme summarizes the views of the three school administrators and four teachers who were responsible in the disaster management of their respective school from Monkayo East District. The emerging themes are Coordinate with Local Authorities and Community Volunteers, Ask Help from Stakeholders, Conduct Hazards Inspection.

It is crucial for organizations to coordinate with local authorities and community volunteers to ensure an effective response and recovery process. Local authorities possess valuable knowledge of the area's infrastructure, resources, and affected populations, making their input essential in planning and executing relief efforts. Community volunteers also play a critical role in providing immediate assistance to those in need while helping to bridge gaps in services. According to Glanz (2005), collaboration between these groups can ensure that resources are allocated efficiently, avoid duplication of efforts, and provide timely assistance to those in need. Local authorities have valuable knowledge of the area and can help prioritize response efforts, while community volunteers bring additional manpower and insight into the specific needs of residents.

It is crucial for organizations to seek help from stakeholders in order to effectively manage and recover from the situation. Stakeholders, such as community members, government agencies, non-profit organizations, and businesses, can provide valuable resources, expertise, and support during these challenging times. According to Bernadas (2015), involving stakeholders in post-disaster initiatives can lead to more effective decision-making, increased community engagement, and improved outcomes for all involved parties. By collaborating with local businesses, government agencies, non-profit

organizations, and community members, leaders can leverage diverse perspectives and resources to address immediate needs and plan for long-term sustainability.

After a disaster strikes, conducting a hazards inspection is crucial to identify potential risks and ensure the safety of individuals involved in the recovery efforts. This process involves assessing structural damage, electrical hazards, gas leaks, unstable debris, and other threats that may pose a danger to rescue workers, volunteers, and residents in the affected area. Jha et al. (2018), stated that conducting timely inspections post-disaster plays a key role in preventing further injuries or fatalities and facilitating effective response efforts. Additionally, hazard inspections provide valuable data for future disaster preparedness and mitigation measures, ultimately enhancing overall community resilience and response capabilities.

Strategies Used to Maintain Morale and Motivation Among Staff and Students During the Recovery Phase. This structured theme summarizes the views of the three school administrators and four teachers who were responsible in the disaster management of their respective school from Monkayo East District. The emerging themes are Constant and Open Communication, Seek Mental Health Resources and Counseling, Showing Confident and Strength, Providing Professional Development and Resources.

Maintaining constant and open communication is essential for effective disaster response and recovery efforts. Clear and consistent communication helps to ensure that all stakeholders are informed of the situation, actions being taken, and resources available. According to research by Liu et al. (2016), clear and consistent communication helps build trust among stakeholders, reduces confusion and panic, facilitates decision-making processes, and fosters community resilience. By utilizing various communication channels such as social media, press releases, community meetings, and hotlines, stakeholders can keep the public informed about recovery efforts, safety precautions, available resources, and support services.

Seeking mental health resources and counseling is essential for individuals to cope with the aftermath of traumatic events. Research shows that experiencing a disaster can lead to various mental health challenges such as anxiety, depression, post-traumatic stress disorder (PTSD), and other psychological issues. Consulting with mental health professionals can provide individuals with the necessary support and guidance to navigate through their emotions, thoughts, and reactions in a healthy way. In times of disaster, it is crucial for individuals to seek mental health resources and counseling to cope with the overwhelming stress and trauma they may experience. Research has shown that early intervention through professional mental health support can significantly reduce long-term negative psychological effects following a disaster (Norris et al., 2002).

In the face of disaster, it is imperative for professionals to exhibit confidence and strength as they navigate through challenging circumstances. Maintaining composure and demonstrating resilience not only inspires trust and reassurance among colleagues or team members but also sets an exemplary standard of leadership during crises. By remaining calm and composed, professionals can effectively problem-solve, make rational decisions, and provide guidance in times of uncertainty. Brown (2012) highlighted on her research on vulnerability and courage, how individuals can cultivate resilience and demonstrate strength even in difficult circumstances.

It is imperative for organizations to provide professional development and resources to assist employees in coping with the emotional toll and potential disruptions caused by such events. By offering training sessions on stress management, resilience building, and disaster preparedness, employers can equip their staff with the necessary tools to navigate the challenging circumstances they may face. According to

Lempert (2010), organizations must prioritize support for employees by offering training and assistance to help them cope with trauma, rebuild their skills, and navigate challenges post-disaster. By implementing tailored professional development programs, employees can regain stability, confidence, and productivity within the workplace.

Measures Taken to Ensure the School Environment Was Safe and Conducive to Learning After the Disaster. This structured theme summarizes the views of the three school administrators and four teachers who were responsible in the disaster management of their respective school from Monkayo East District. The emerging themes are Conducted Safety Inspections and Repair, Make Temporary Learning Spaces, Provide Counseling, Enhanced Emergency Communication System.

It is essential to conduct thorough safety inspections and repairs to ensure the well-being of individuals and communities. As a professional, it is imperative to assess the extent of damage, identify potential hazards, and implement corrective measures promptly. As cited by Rozenberg (2006), proactive measures like safety inspections and prompt repair are essential components of effective disaster management strategies that contribute to a safe and resilient environment in the aftermath of crises.

Establishing temporary learning spaces is crucial for ensuring educational continuity and supporting the emotional well-being of children affected by the crisis. These learning spaces should be safe, flexible, and conducive to effective teaching and learning. According to Knaack (2017), these spaces are essential for providing a sense of normalcy and stability for both students and teachers. Quick implementation of temporary learning spaces is necessary to prevent long-term educational setbacks, address trauma, and promote resilience in the affected communities.

Providing counseling services in the aftermath of a disaster is crucial for addressing the mental and emotional well-being of those affected. As a professional counselor, it is important to offer support, empathy, and guidance to individuals as they navigate through traumatic experiences. According to Eisold (2002), counseling after a disaster can help individuals cope with feelings of fear, sadness, anger, and anxiety that often arise in the wake of traumatic events. By offering a safe space for survivors to express themselves and receive support, counselors can play a vital role in promoting healing and resilience.

The Enhanced Emergency Communication System disaster refers to a catastrophic event where the system designed to provide vital information during emergencies fails to perform effectively. This breakdown in communication could be due to technical issues, insufficient training of personnel, or inadequate maintenance of equipment. In their research article "Enhanced Emergency Communication System after disaster," authors Jones et al. (2020) propose a comprehensive system that utilizes various communication technologies to improve emergency communication during and after disasters.

Critical Factors in Ensuring a Resilient Academic Infrastructure that can withstand Future Disasters. This structured theme summarizes the views of the three school administrators and four teachers who were responsible in the disaster management of their respective school from Monkayo East District. The emerging themes are Developing Comprehensive Emergency Preparedness Plans, Constructing Disaster-Resistant Buildings, Implement Comprehensive Emergency Preparedness Drills, Being Knowledgeable about the Disasters, Calamities Financial Allocation.

Developing comprehensive emergency preparedness plans following a disaster is essential for ensuring the safety and well-being of individuals and communities. These plans involve identifying potential risks, assessing vulnerabilities, establishing communication protocols, coordinating response efforts with local authorities, and implementing procedures to mitigate the impact of future disasters. According to Kachel

and Karpinski (2016), effective emergency preparedness plans should encompass a wide range of potential threats such as natural disasters, acts of violence, medical emergencies, and technological hazards. These plans should include detailed procedures for response and recovery, communication protocols, roles and responsibilities assignments, regular training drills and evaluations, as well as mechanisms for updating and revising the plan as needed based on lessons learned from real-life incidents or changes in school infrastructure or policies.

Constructing disaster-resistant buildings in schools is crucial to ensure the safety and protection of students and staff. Professional engineers and architects must carefully assess the damage caused by the disaster and consider various factors such as geographical location, building materials, and potential risks in order to create a robust plan for reconstruction. Research conducted by Kusuda et al. (2017) highlights the importance of using resilient materials and innovative construction techniques that can withstand extreme weather events such as hurricanes, earthquakes, or floods. Incorporating features like reinforced foundations, flexible building designs, and impact-resistant windows can significantly increase the structural integrity of buildings and reduce the risk of damage during disasters.

Implementing comprehensive emergency preparedness drills in schools is crucial in ensuring the safety and security of students, staff, and faculty in the event of a disaster. By conducting regular drills that simulate various emergency scenarios such as fires, active shooters, natural disasters, and medical emergencies, school officials can effectively assess their emergency preparedness plans and procedures. In order to effectively respond to disasters, it is crucial for organizations and communities to implement comprehensive emergency preparedness drills. These drills provide valuable opportunities for individuals to practice their roles, assess their level of readiness, and identify potential areas for improvement in the event of a real emergency. Research has shown that conducting regular simulations can lead to increased confidence and competence among responders, ultimately enhancing their ability to handle crisis situations (Herrmann & Tymitz 2019).

Establishing strong communication networks is essential in preparing schools for disasters. With effective communication channels in place, schools can ensure timely dissemination of critical information to all stakeholders including students, staff, parents, and emergency responders. According to Gupta et al. (2017), effective communication plays a key role in helping survivors access essential services, connect with loved ones, and stay informed about available resources. It is essential for emergency responders to utilize various communication channels such as social media, radio broadcasts, mobile apps, and community meetings to ensure that accurate and timely information reaches those in need.

Calamities Financial Allocation is a crucial aspect of disaster preparedness in schools, requiring meticulous planning and efficient resource management. With the potential for various natural disasters such as earthquakes, hurricanes, and floods to disrupt educational activities, allocating funds towards emergency supplies, safety equipment, and response training is imperative. The importance of incorporating disaster risks into fiscal frameworks and establishing emergency procurement procedures in advance. By doing so, countries can better manage the macroeconomic and fiscal impacts of disasters, ensuring that financial resources are allocated efficiently during crises (World Bank, 2020).

Insights to Share about the Challenges and Successes in Upgrading Technological Resources as Part of the Rebuilding Efforts. This structured theme summarizes the views of the three school administrators and four teachers who were responsible in the disaster management of their respective school from Monkayo East District. The emerging themes are Challenge in Budget Constraints, Challenge in having

Limited Access to Internet and Electricity, Must Have Comprehensive Training, Importance of Unity and Communication, Technological Advances Greatly Boost Learning and Resilience, Importance of Having Excellent Technological Resources, Involve Stakeholders in Decision-making.

As educational institutions are increasingly becoming vulnerable to various disasters such as natural calamities, accidents, and security breaches, it is imperative for school administrators to prioritize disaster preparedness in order to ensure the safety of students and staff members. Maly (2018) revealed that critical shortcomings in educational systems, prompting a concerted effort to fortify the resilience of school infrastructures and enhance disaster preparedness programs.

In order to effectively prepare for potential disasters in schools, it is crucial for educational institutions to provide comprehensive training for staff and students. This training should cover various emergency scenarios such as natural disasters, intruders, and medical emergencies, equipping individuals with the necessary skills and knowledge to respond quickly and efficiently in high-stress situations. Stirling (2014) in the "International Journal of Educational Management," discussed the importance of comprehensive resilience programs that support both students and the educational infrastructure.

In order to effectively prepare for disasters in schools, it is imperative for school personnel to prioritize both unity and communication within their emergency preparedness plans. Unity ensures that all staff members are on the same page in terms of response protocols and responsibilities during a crisis situation, creating a sense of cohesion and teamwork that is crucial for efficient disaster management. To ensure effectiveness, these efforts must be accompanied by localized and participatory risk communication strategies from the government (Cayamanda et al., 2021).

Technological advances have significantly enhanced learning and disaster preparedness in schools by providing educators and students with innovative tools and resources. Utilizing technology, such as interactive simulations, virtual reality experiences, and online educational platforms, allows students to engage in immersive learning experiences that promote critical thinking, problem-solving skills, and real-world application of knowledge. According to a study conducted by Johnson et al. (2019), technologies such as virtual reality, mobile apps, and online platforms have enabled quicker dissemination of information, improved accessibility to educational resources, and facilitated remote communication between disaster-affected individuals and relief organizations.

In order to effectively prepare for disasters in schools, it is essential to involve stakeholders in decision-making processes. By including administrators, teachers, parents, and students in planning and response efforts, a more comprehensive and inclusive approach can be taken. According to Feldman (2019), involving stakeholders such as community members, local authorities, non-governmental organizations, and businesses in decision-making fosters inclusivity, transparency, and accountability. By including diverse perspectives and expertise in the decision-making process, stakeholders can offer valuable insights into the unique needs and challenges facing the affected community.

Essential Elements in Fostering a Collaborative Environment for Rebuilding Efforts Among Staff, Students, and the Community. This structured theme summarizes the views of the three school administrators and four teachers who were responsible in the disaster management of their respective school from Monkayo East District. The emerging themes are Open and Transparent Communication, Providing Opportunities for Contributions, Provide Knowledge about Disasters, Involve Stakeholders Decision-Making Processes and Teamwork and Collaboration.

One crucial aspect of disaster preparedness in schools is providing opportunities for contributions from staff, students, and parents. By involving various stakeholders in the planning and implementation

process, schools can tap into a wide range of expertise, resources, and perspectives that are essential for creating a comprehensive and effective emergency response plan. According to research conducted by Cutter et al. (2008), enabling diverse stakeholders to participate in post-disaster decision-making processes leads to more holistic and sustainable outcomes. By involving community members, governmental agencies, non-profit organizations, and other key stakeholders in the planning and implementation of recovery strategies, we can leverage a wide range of expertise, resources, and perspectives that may not have been otherwise considered.

It is crucial for schools to provide knowledge about disasters in order to adequately prepare students, staff, and faculty for emergency situations. By increasing awareness and understanding of potential hazards, schools can effectively develop emergency response plans and protocols to ensure the safety and well-being of all members of the school community. According to Wisner (2004) stress the importance of sharing lessons learned from disasters, highlighting both successes and failures in emergency response efforts. Through post-disaster assessments and research, we can identify vulnerable populations, weak infrastructure, and gaps in preparedness planning that require attention moving forward.

In order to effectively prepare for disasters in schools, it is critical to involve stakeholders in the decision-making processes. By including a diverse range of individuals such as administrators, teachers, parents, and community members in the planning and preparation efforts, schools can ensure that the unique needs and perspectives of all parties are taken into consideration. According to Dunlap, et al. (2019), involving key stakeholders such as community members, local government officials, non-profit organizations, and private sector representatives can lead to more informed and inclusive decisions that take into account a variety of perspectives and needs. By bringing together diverse stakeholders, the decision-making process becomes more transparent, accountable, and responsive to the needs of those affected by the disaster

Schools must prioritize teamwork and collaboration in their disaster preparedness plans to ensure the safety and well-being of all students, staff, and faculty. By fostering a culture of open communication and cooperation among all stakeholders, schools can effectively identify potential risks, develop comprehensive emergency response procedures, and coordinate resources for swift and efficient response in times of crisis. Torkildsen (2012) highlighted that effective teamwork and collaboration are essential components in disaster response and recovery efforts.

Implications for Practice

Based on the findings, the following implications for practice are offered.

On the effects of disaster to school infrastructure. Disasters such as earthquakes, and floods can have devastating effects on school infrastructure. These events can lead to severe damage to school buildings, leaving them in ruin and rendering them unsafe for students and staff. In addition to physical damage, disasters can also disrupt essential services such as water and electricity supply lines, further hampering the ability of schools to function properly. Furthermore, the financial costs of rebuilding or repairing school infrastructure after a disaster can be significant, placing a strain on already limited resources. The impact of disasters on school infrastructure goes beyond just the physical damage; it affects the entire educational system and can disrupt student learning for an extended period. It is crucial for schools to have disaster preparedness plans in place to minimize the impact of these events on their infrastructure and ensure that students and staff are safe during emergencies.

On the effects of disaster to the learning environment of the students. Disasters, whether natural or man-made, can have significant impacts on the learning environment of students. In the aftermath of a disaster, students may experience disruptions in their academic routine due to school closures, damaged infrastructure, and displacement from their homes. The emotional and psychological toll of a disaster can also affect students' ability to concentrate and engage in learning activities. Furthermore, limited access to resources such as textbooks, technology, and educational materials may hinder their academic progress. To mitigate the effects of disasters on the learning environment, schools should prioritize providing mental health support services, creating flexible learning opportunities for affected students, and implementing emergency preparedness plans to ensure a safe and conducive learning environment during times of crisis. It is crucial for educators and policymakers to address these challenges proactively in order to support student resilience and recovery in the face of adversity.

On the effects of disaster on the learning of the students. When disasters strike, they can have a significant impact on the learning of students. The disruption to regular routines, temporary closure of schools, and emotional trauma experienced during these events can lead to increased absenteeism, decreased academic performance, and difficulties in concentrating on studies. Additionally, the loss of educational resources, such as textbooks or technology, further hinders the learning process. Moreover, the mental health repercussions of experiencing a disaster can negatively affect cognitive functioning and memory retention. To mitigate the effects of disasters on student learning, it is crucial for educators to provide support services, implement trauma-informed teaching practices, and create a safe and nurturing environment for students to thrive academically despite the challenges they may face.

On the strategies employed by the teachers and school heads to mitigate the effects of disasters. Teachers and school heads play a critical role in mitigating the effects of disasters on their students and school communities. One strategy employed is the development and implementation of comprehensive emergency response plans that outline procedures for various disasters such as natural disasters, fires, or acts of violence. These plans include evacuation routes, communication protocols, and designated responsibilities for staff members. Additionally, teachers receive training on how to effectively respond during emergencies and are encouraged to practice drills with their students to ensure readiness. School heads also work closely with local authorities and emergency services to coordinate resources and assistance in times of crisis. By prioritizing preparedness and fostering a culture of safety within the school environment, educators can help protect their students and minimize the impact of disasters on learning outcomes.

On the insights of the teachers and school heads on school disaster risk reduction management. Teachers and school heads are crucial in the implementation of effective school disaster risk reduction management strategies. Their insights play a significant role in ensuring the safety and well-being of students and staff during emergencies. These professionals possess valuable knowledge and experience that can be utilized to identify potential risks, develop prevention measures, and implement emergency preparedness plans. By actively involving teachers and school heads in the planning process, schools can create a more comprehensive and effective disaster risk reduction management system. Additionally, these individuals can provide guidance on how to effectively communicate emergency procedures to students, facilitate evacuation drills, and address any specific vulnerabilities within the school environment. Ultimately, their expertise is essential in safeguarding the entire school community from potential disasters.

Implications for Future Research

In as much as the study was limited to the responses of the school administrators and teachers from Monkayo East District, Division of Davao De Oro, the following implications for future research are considered:

First, future research may be conducted by selecting other district in Davao De Oro to see patterns and similarities of the experiences, challenges, coping mechanisms and insights of the school heads and teachers in managing the effects of disaster.

Second, the students may also be taken as another participant of this study to see if students have ways to cope with the effects of the disasters in their school.

Third, this study was done in a public elementary school. Further research could be done to investigate the same phenomenon among private schools.

Finally,the findings of the study are viewed from the lens of the selected school heads and teachers' research participants and informants from barrio schools. Thus, another research could be conducted to find out the experiences, challenges, coping mechanisms, and insights of school heads and teachers from big schools.

Concluding Remarks

Teachers and school heads play a critical role in the implementation of effective disaster risk reduction management within educational institutions. They are responsible for creating and implementing comprehensive safety plans, organizing drills and training sessions, as well as ensuring that students are well-informed about emergency procedures. School heads must provide leadership and support to their staff, promoting a culture of preparedness and resilience within the school community. Teachers, on the other hand, are at the forefront of educating students on how to respond to disasters, equipping them with vital life-saving skills and knowledge. Furthermore, they act as first responders during emergencies, guiding students to safety and providing necessary care and assistance. By working together collaboratively, teachers and school heads can minimize the impact of disasters on schools and ensure the safety and well-being of all individuals within the learning environment.

Effective disaster risk reduction management within educational institutions requires a strong partnership between teachers, school heads, and other stakeholders. It is essential for all members of the school community to be actively involved in planning and implementing safety measures to protect students and staff in the event of a disaster. Regular training sessions, drills, and communication protocols should be established to ensure everyone is well-prepared and knows their role during emergencies. By fostering a culture of collaboration and shared responsibility, schools can create a safe and resilient environment that can effectively respond to any potential threats. Together, teachers and school heads can lead by example and inspire others to prioritize safety and disaster preparedness in all aspects of school life.

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