

Fortifying Foundations of Implementation Strategies of Disaster Risk Reduction Management: Elementary School Teachers in Focus

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Abstract. Amidst the shifting tides of nature's challenges, educators are beacons of hope, navigating uncharted waters to ensure safety and preparedness in their schools. This study examined elementary teachers' experiences, coping strategies, and educational insights in implementing disaster risk reduction management (DRRM) in the local schools of Tugbok East District, Davao City. Employing a qualitative phenomenological approach, the research involved in-depth interviews with ten elementary teachers, analyzed through thematic analysis. Guided by Creswell's (2018) framework, open-ended questions were used to capture rich and detailed narratives that provided a deeper understanding of how teachers perceive and apply DRRM in the school setting. The analysis revealed three major sets of themes. For teacher experiences, the emerging themes included personal disaster experience, limited DRRM training and resources, and stakeholder collaboration. Coping strategies were characterized by context-based planning and learner-centered preparedness. Lastly, the educational insights gained highlighted community collaboration and hands-on learning. These findings emphasize the need for more structured training, localized strategies, and stronger community partnerships in fostering disaster-ready schools. The study recommends that education stakeholders invest in sustained support and capacity-building initiatives to enhance the effectiveness of DRRM implementation in elementary education.

KEY WORDS

1. Disaster risk reduction management
2. implementation strategies
- elementary teachers
3. local elementary schools

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1. Introduction

The increasing severity and frequency of extreme weather events globally, driven by climate change, are having a devastating impact, especially on vulnerable low- and middle-income nations. These countries suffer the most from floods, droughts, and storms, highlighting the critical need for disaster risk reduction. This is no longer just an option but a fundamental

part of social and economic development, vital for protecting future progress and ensuring sustainable growth amidst escalating climate threats. In the global scale, Indonesia's location along the equator and the Ring of Fire makes it exceptionally susceptible to natural disasters, resulting in significant loss of life. Given this vulnerability, cultivating public awareness

and knowledge of disaster risks and mitigation strategies is essential. Education plays a crucial role in this effort, facilitating the distribution of up-to-date disaster information and strengthening community preparedness (Astuti, Werdhiana, Wahyono, 2021). In line with this, at a national level, the Japanese Ministry of Education, Culture, Sports, Science, and Technology (MEXT) has promoted enhancing disaster resilience within the education sector. However, although there have been many examples of well-conceived school-based implementation, disaster education has been taught at a limited number of schools in which there are school principals and/or teachers who are enthusiastic about disaster education. Major constraints include securing enough teaching hours and a lack of structured and systematic teaching content according to children's development stages (Sakurai, Sato, Murayama, 2020). Meanwhile, in Taiwan, Wang (2019), expressed that the incidence and impact of natural disasters have drastically increased. He added that schools are responsible for not only teaching disaster management knowledge but also serving as evacuation shelters. Occurrences of disasters are highly unpredictable. If a disaster happens during school hours, schools must consider the risks that students are exposed to and respond early to such an event. In the local landscape, the Philippines has also emerged as a focal point for research on disaster risk reduction in schools, reflecting the country's vulnerability to natural disasters such as typhoons, earthquakes, and floods. Dela Cruz and Ormilla (2022) highlight the importance of integrating disaster risk reduction into the educational curriculum, emphasizing that proactive education and training for teachers and students can significantly enhance school preparedness. Moreover, the Philippine Department of Education (DepEd) has been actively promoting the establishment of disaster-resilient schools through various programs and policies. According to a 2021 report by the United Nations Chil-

dren's Fund (UNICEF), the Safe Schools initiative aims to create safe learning environments by improving infrastructure, developing disaster response plans, and fostering community involvement in disaster risk reduction efforts. The report underscores the critical role of community engagement in ensuring that schools are not only prepared for disasters but also serve as community hubs for resilience and recovery. Corroborating the above assertion, Bersamina and Brion (2023) further emphasize the need for continuous evaluation and adaptation of disaster risk reduction strategies in the education sector. By empowering students and fostering a sense of agency, schools can better prepare future generations to face the challenges posed by natural disasters. In Mindanao, Pandapatan (2024) emphasizes that local contexts and community involvement are essential for effective disaster risk reduction implementation in educational settings. He also added that Mindanao is in critical need of enhancing disaster risk reduction strategies in school, particularly in response to the region's vulnerability to natural hazards such as floods and earthquakes. While the integration of disaster risk reduction into the curriculum is important as there are several benefits to this, there are limited studies that tackle how it can be integrated in the early years of education. Also, there is a scarce number of studies that explore how disaster risk reduction can be integrated into education to help teach children how to identify and respond to risks in their community, thereby reducing vulnerability and building resilience in children (Mutasa Radhumbu, 2018). In the context of Tugbok East District, ensuring the safety of students, teachers, and school administrators is a top priority. To achieve this, various efforts are underway, including training programs for school personnel, particularly DRRM Coordinators, to enhance the preparedness of elementary schools. Despite these initiatives, evaluations reveal that there is still room for improvement in terms

of disaster and risk reduction preparedness. In the Davao Region, there is a scarcity of studies that delve into the experiences and implementation strategies of teachers in elementary schools. Investigating the experiences and strategies of DRRM Coordinators in this setup is crucial, as schools must prioritize student safety. This inquiry would uncover effective strategies to improve disaster preparedness, mitigating the impact of unforeseen disasters. Taking into consideration the cited problem situation, I find it timely to conduct this study. I hope that this study enlightens the identified sectors of the academe. This includes the educational leaders, school heads, teachers, parents, other stakeholders, and future researchers. Educational leaders can benefit from the findings of this study because it can provide them with insights and valuable lessons regarding school-based disaster risk reduction management. It would be important for them to know this because the safety of the students is the topmost priority of schools. The findings of this study might help

the school heads or principals to be aware and informed about disaster risk reduction, safety, and preparedness of teachers and find ways to offer some help and assistance to the teachers in order to properly administer safety training and drill that would ensure the safety of the students and the school at large. The teachers may also benefit from this study by looking into the findings and learnings from the strategies of teachers for disaster risk reduction strategies. Also, the parents can be informed by the study on how they can assist the teachers and children in making their safety the top priority. The stakeholders may provide better support to enhance the implementation of disaster risk reduction in schools. Finally, this would be helpful to future researchers as an additional contribution to their references for future research in the field of safety and preparedness, specifically in school-based disaster risk reduction programs focusing on student safety and preparedness in case of unforeseen circumstances.

1.1. Purpose of the Study—This phenomenological study investigated and analyzed the experiences and implementation strategies utilized by elementary school teachers for disaster risk reduction management in their schools. The study provided useful insights into the strategies used by teachers for the safety of the students in the school during calamities. In the end, the study increased my understanding of how to effectively utilize the strategies in order to ensure everyone's safety in the classroom and avoid the worst-case scenario. This study focused on gathering firsthand accounts from elementary teachers about their use of disaster risk reduction strategies in their classrooms. By using a phenomenological approach, the research aimed to uncover the specific methods teachers used to protect students during and after the calamities happened. Additionally, the study evaluated how well these strategies improved school safety and disaster readiness, particularly in elementary schools. The findings offered valuable insights informed educational policies that could positively impact student safety and shape educational policies related to disaster risk reduction in schools.

1.2. Research Questions—This study unfurled the experiences and implementation strategies of elementary school teachers for disaster risk reduction in their respective schools. The research was carried out with the purpose of addressing the following inquiries:

- (1) What are the lived experiences of elementary school teachers regarding disaster risk reduction management?
- (2) How do elementary school teachers cope with the challenges of implementing disaster risk reduction management in schools?

(3) What educational management insights can be formulated from the findings of the study?

1.3. Definition of Terms—For a more comprehensive understanding, the following terms were described operationally.

Disaster Risk Reduction Management

It refers to concepts and practices employed in schools to reduce disaster risks through systematic efforts to analyze and reduce the causal factors of disasters (UN For Disaster Risk Reduction, 2019). In this study, disaster risk reduction management refers to the practices and strategies applied by the school in order to lessen or reduce the risk and the impact of a

disaster that poses dangers towards the students. This leads to lesser casualties and minimizes the damage of a disaster.

Hazard Drills

It refers to an emergency drill or practice run of an emergency procedure. It can be used to test the response of employees, facilities, and systems (Burton, 2022). In this study, hazard drill refers to the different practices or runs in terms of any emergency. This will be used to describe the practices and responses of the students, teachers, and school administrators.

1.4. Theoretical Lens—The theoretical underpinning of the study is anchored on the Social Cognitive Preparation Model of Douglas Paton (2003). They explain how personal beliefs, behavior, and environmental factors interact to influence disaster preparedness. Key elements include self-efficacy, which pertains to one's ability to manage risks, outcome expectancies which is the belief that preparedness actions will reduce disaster impacts, and environmental influences which refer to social norms and institutional policies. As applied to this study, the theory grasped the objective which is to know the experiences and implementation strategies of teachers in disaster risk reduction. Through this theory, the study can shed light on how the teacher employs these strategies. Also, in schools, the social-cognitive preparation model can be applied by training teachers and staff to increase their confidence in handling disasters, providing positive feedback after drills, and fostering a supportive environment where preparedness is emphasized. Furthermore, the study is further reinforced by the Theory of Planned Behavior (TPB) by Azjen (2019). The theory suggests that an individ-

ual's actions are driven by three factors: their attitude toward the behavior, subjective norms which include social pressures or expectations, and perceived behavioral control, which means the ease or difficulty of performing the behavior. Essentially, if people believe the behavior will lead to positive outcomes, think that important others expect them to perform it, and feel capable of doing so, they are more likely to engage in that behavior. The Theory of Planned Behavior helps explain how intentions lead to actions, especially when there are both internal motivations and external influences. In the context of disaster risk reduction in elementary schools, the Theory of Planned Behavior encourages teachers and students to adopt proactive safety measures. Teachers' attitudes toward disaster risk reduction and their confidence in implementing preparedness strategies directly influence their willingness to integrate disaster risk reduction into classroom activities. This theory can help the researcher in understanding what drives teachers to employ school-based disaster risk reduction. Also, it would assist the research in diving deeper into the subject matter which would lead to more knowledge for the welfare of students in schools.

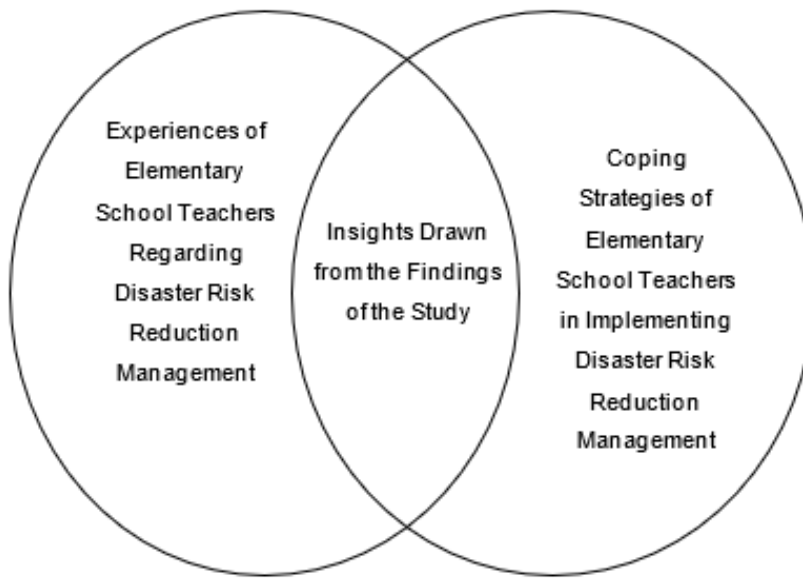


Fig. 1. The Conceptual Framework of the Study

2. Methodology

This chapter effectively addresses the specific objectives of the study by outlining the systematic procedures and methodologies used in phenomenological research. It also explains the selected research design and the roles I played as the researcher throughout the study's implementation. Moreover, it offers thorough insights into the research subjects, clarifying their procedures and selection standards. The chapter concludes by exploring the techniques used for data collection and analysis and the strategies used to uphold ethical standards during the research.

2.1. Philosophical Assumptions—A study's philosophical and qualitative presumptions are vital in steering the investigation. Four fundamental assumptions form the bedrock for comprehending qualitative research: ontological, epistemological, axiological, and methodological. These assumptions establish the groundwork for the research design and inform the researcher's approach to the study. A paradigm is a broad framework or perspective that guides and shapes how researchers approach their studies, formulate research questions, gather data, analyze findings, and interpret results. It encompasses a set of beliefs, assumptions, methodologies, and theoretical foundations that influence how

researchers conceptualize and conduct their research (Zukauskas et al., 2018). In this research, the paradigm guided the choice of methodology and techniques, shaping the overall research process and ensuring coherence in the study.

Ontology

This section of the study focused on the relationship between the problem and reality. According to Creswell and Poth (2018), ontology could be defined as the study of the nature of reality. The authors also asserted that the research participants' perceptions of reality were varied and subjective. This study acknowledged the complex, multifaceted nature of reality as experienced by DRRM coordinators. Their lived experiences, as they navigated the challenges of

implementing disaster risk reduction management in their respective schools, revealed the intricate web of meanings and interpretations that underpinned their professional existence. Through thematic analysis, this research sought to uncover the underlying ontological assumptions that shaped the DRRM coordinators' understanding of their role, their students, and the context in which they taught. By examining the coordinators' challenges and strategies for implementing disaster risk reduction management, this study aimed to illuminate the fundamental nature of reality as it related to disaster risk reduction management.

Epistemology

Epistemology deals with the nature of knowledge and the relationship between the knower and the known. According to Creswell and Poth (2018), the researcher made an effort to reduce the gap between them and the participants based on the epistemological premise. Through an immersive and participatory approach, this study employed a qualitative methodology to gain intimate insight into the challenges and strategies of DRRM coordinators. By embracing an insider perspective, I aimed to co-construct knowledge with the participants, acknowledging the subjective and contextual nature of their realities. This epistemological stance recognized that knowledge was socially constructed, context-dependent, and inherently subjective. By engaging in deep, experiential data collection, I sought to uncover the DRRM coordinators' perspective, revealing the complex, nuanced, and contextualized nature of their challenges and strategies in implementing disaster risk reduction management in their respective schools.

Axiology

It concerns the influence and importance of my values as a researcher in this study. According to Creswell and Poth (2018), acknowledging and openly discussing the researcher's values that shape the study is crucial. This study

is grounded in a deep respect for the inherent value and dignity of each participant's narrative. As a researcher, I am committed to upholding the highest ethical standards, ensuring that the challenges and strategies of elementary school teachers who at the same time are the DRRM coordinators, are treated with sensitivity, integrity, and transparency. By prioritizing the values of trust, respect, and reciprocity, this research aims to co-create a safe and empathetic space for participants to share their stories regarding the implementation of disaster risk reduction and management.

Methodology

According to Crotty (2020), this is "the strategy, plan of action, process, or design lying behind the choice and use of particular methods and linking the choice and use of the methods to the desired outcomes." Its objectives are to explain, assess, and defend procedures. This qualitative study employs an in-depth, phenomenological approach to explore the challenges and strategies of DRRM coordinators in implementing disaster risk reduction management. A qualitative methodology is chosen for its ability to capture the richness, complexity, and nuance of participants' experiences. Specifically, this study utilized in-depth interviews as the primary data collection technique. This approach enabled a detailed, contextualized, and empathetic examination of participants' narratives, allowing for a deeper understanding of their challenges and strategies.

Rhetoric

In research, rhetoric is the skillful and convincing use of language, communication strategies, and presentation tactics to effectively communicate concepts, claims, and conclusions in order to sway the audience's opinion and comprehension of the study (Beqiri, 2018). This study employs a narrative approach that not only respects the voices of the participants but also presents the findings in a clear, compelling, and accessible manner. Through the strategic use of

language, I established a rhetorical connection with the audience, fostering empathy and understanding of the DRRM coordinators' challenges and strategies in overcoming the implementation of disaster risk reduction management. I en-

sured that the participants' stories are conveyed with accuracy, sensitivity, and depth. This approach enables the research to resonate with its intended audience, facilitating a deeper understanding of the findings and their implications.

2.2. Qualitative Assumptions—Using a phenomenological research methodology, my goal was to explore the experiences and implementation strategies of elementary school teachers with school-based disaster risk reduction. My objective was to gather information about their experiences, strategies, and values in relation to the phenomenon I am studying. Utilizing phenomenology as my guiding qualitative framework, I sought to uncover the essence and significance of the roles played by these individuals, emphasizing their unique viewpoints and the intricate details of their experiences. As the study's qualitative researcher, I supported a level of investigation that goes beyond cursory observations. My research aims to investigate the experiences, challenges, and strategies of participants in relation to the phenomenon. I emphasized the significance of understanding the

complexities of human experience in light of the various perspectives that are shaped by unique contexts, backgrounds, and personal histories (Neubauer et al., 2019). To uncover the intricate and multifaceted nature of challenges faced by DRRM coordinators in implementing disaster risk reduction management in their respective elementary schools, my study employs a qualitative approach that prioritizes depth and contextual richness. Specifically, I utilized in-depth interviews and reflective dialogues with the coordinators to gather nuanced and detailed accounts from participants. Through a phenomenological lens, I analyzed participants' narratives to identify the essence of their experiences, gaining insight into their perceptions, thoughts, and feelings. This approach enables me to capture the complexities and subtleties of the teachers' experiences, strategies, and insights in implementing disaster risk reduction management.

2.3. Design and Procedure—Determining the precise approach used in a study is crucial in order to customize the best research design, data collection strategy, and data analysis approach to the study's objectives. I used a qualitative research design in this investigation. Hammersley (2013), as cited in Aspers and Corte (2019), states that studies characterized by verbal rather

than statistical analysis are appropriate for qualitative research. Since I am studying the lived experiences, strategies, and insights of DRRM coordinators of elementary schools, pertaining to school-based disaster risk reduction, the qualitative design was the most appropriate. This means that rather than establishing or refuting theories, I described and elaborated on this phenomenon.

2.4. Research Participants—Qualitative analyses typically require a smaller sample size than quantitative analyses. Qualitative sample sizes should be large enough to obtain feedback for most or all perceptions. Obtaining most or

all the perceptions leads to the attainment of saturation. Saturation occurs when adding more participants to the study does not result in additional perspectives or information. Glaser and Strauss (2017), as cited in Hennink and Kaiser

(2022), recommend the concept of saturation for achieving an appropriate sample size in qualitative studies. For phenomenological studies, Creswell (2018) recommends 5 to twenty-five. According to Subedi (2021), larger samples in qualitative studies hinder an in-depth exploration of the study phenomenon. There are no specific rules when determining the appropriate sample size in qualitative research. Qualitative sample size may best be determined by the time allotted, resources available, and study objectives (Patton, 2002, as cited in Mullet, 2018). With this, the participants of this study were ten (10) DRRM Coordinators from five (5) different schools within Tugbok East District, Davao City. These schools are the following: Porferio Antipala Elementary School, Biao Elementary School, Tacunan Elementary School, Biao Guianga Elementary School, and Ula Elementary School. To gather a more diverse and in-depth understanding of the experiences and implementation strategies of elementary school educators regarding school-based disaster risk

reduction, two (2) participants were selected from each school. This selection process ensures that the study captures a broad range of perspectives allowing for a more comprehensive examination of school-based disaster risk reduction. The participants were chosen based on the following criteria: they must be the DRRM coordinator of their school, they must be currently teaching in one of the five schools within Tugbok East District, Davao City, they must have attended training or seminars for disaster risk reduction in school, they must be familiar or have employed disaster risk reduction education, and willing to participate in the study. I utilized the purposive sampling design so that the participants are chosen based on the criteria or purpose of the study (Creswell, 2018). It is also known as judgmental, selective, or subjective sampling. The selection of the participants was purposefully done to ensure that the findings would be authentic (Marshall, 1996, as cited in Vasileiou et al., 2018).

2.5. Ethical Considerations—Ethical considerations are crucial because they relate to the moral principles and guidelines that govern my conduct as a researcher. These principles ensure that I carry out my investigations responsibly, treating participants with respect and striving to generate reliable and precise information. To protect participants, maintain scientific integrity, and foster trust within the research community, I adhere to established ethical standards in my research practices (Resnik, 2020).

Social Value

This concerns the potential benefits and favorable outcomes that research can bring to society, like addressing problems or in the context of this study, promoting the safety of students in schools through disaster risk reduction and management. This study recognizes its societal value by addressing a critical need in education:

implementation of disaster risk reduction management and highlighting students and staff's safety within the school. By investigating effective strategies for improving this program, this research has the potential to create a positive impact on the broader educational community in terms of ensuring and prioritizing the safety in schools. The findings of this study can inform evidence-based practices, ultimately benefiting students, educators, and schools. By implementing disaster risk reduction management, this research can contribute to the development of safe and equipped schools in case of any emergency.

Informed Consent

This involves obtaining a participant's voluntary agreement to participate in a research study after they have been provided with sufficient information about the study's purpose, methods, potential drawbacks, and benefits. In

conducting this research with DRRM coordinators, I prioritized transparency, autonomy, and dignity. I ensured that participants are fully informed about the study's objectives, procedures, and potential benefits, particularly in relation to cultivating the student's reading skills. Participants were explicitly informed about their rights. This informed consent process respects the teachers' autonomy and dignity, acknowledging their expertise and contributions to the field of disaster risk reduction management in school settings.

Vulnerability

The vulnerability of research participants, in this case, the teachers, pertains to their increased risk of experiencing harm, exploitation, or coercion due to factors such as age, cognitive ability, or socioeconomic status. As a researcher investigating the experiences and strategies of DRRM coordinators in implementing disaster risk reduction management at elementary schools, I recognized the potential vulnerability of these educators. To protect their well-being and privacy, I implemented rigorous safeguards and support mechanisms. These measures include obtaining informed consent, ensuring confidentiality, and clearly explaining participants' rights and the study's procedures in an accessible manner.

Risks, Benefits, and Safety

In research, it is essential to carefully evaluate the potential risks and benefits associated with participation in a study, as well as to implement measures that safeguard the well-being of participants. These elements involve assessing the potential disadvantages and advantages of participating in a study, along with establishing strategies to ensure the welfare of participants. In this investigation of DRRM coordinators, I carefully weighed the potential benefits and risks. Recognizing the teachers' expertise and vulnerabilities, I implemented robust precautions to minimize potential harm and ensure participants' safety. This meticulous approach

is essential for upholding ethical standards and safeguarding the well-being of DRRM coordinators throughout the research process. By prioritizing their safety and dignity, I foster a trustworthy and respectful research environment that values their contributions to the field of disaster risk reduction management.

Privacy and Confidentiality

Privacy and confidentiality in research are about safeguarding participants' personal information and ensuring their identity remains confidential unless they explicitly consent to disclosure. In conducting this study on DRRM coordinators, I acknowledged the importance of maintaining confidentiality and protecting participants' sensitive information. To ensure the privacy and anonymity of the teachers, I implemented rigorous data protection protocols. These measures include anonymizing data, encrypting and securely storing information, and restricting access to authorized personnel only. By upholding the highest standards of data confidentiality and integrity, I safeguarded the trust and participation of DRRM coordinators, ultimately ensuring the credibility and validity of this research.

Justice

This concept relates to the equitable allocation of both the advantages and disadvantages resulting from research across various segments of society. In this study, I will prioritize inclusivity and equity. Recognizing the diversity of educators, I will ensure that the research design and methods avoid exploiting or excluding vulnerable groups, such as those from diverse backgrounds or with varying levels of experience, especially in being a DRRM coordinator. To promote fairness and equity, I will strive to make the research benefits accessible to all stakeholders who could gain from them, including DRRM coordinators, other teachers, students, and the broader educational community.

Transparency

Transparency in research encompasses

maintaining integrity at every phase of the study, from its conception and execution to the reporting of results. In this study, I am committed to transparency, providing clear, accurate, and unbiased information regarding my research methodologies, data collection procedures, and findings. By being transparent about my research processes and outcomes, I ensured that all stakeholders, including educators, students, and policymakers, have access to reliable and comprehensible information. This commitment to transparency promotes collaboration, informed decision-making, and the advancement of knowledge in disaster risk reduction management.

The Qualification of a Researcher

The qualification of a researcher relates to one's academic background, professional experience, and proficiency in a particular area of study, ensuring that one possesses the requisite abilities and knowledge to conduct the research competently. In this investigation, I held suitable qualifications that showcase my capability to conduct research, analyze data, and interpret the results. My expertise and training provided the foundation necessary to approach this study with a rigorous scientific method and critical analytical skills, ensuring the integrity and validity of the findings.

The Adequacy of Facilities

This addresses the presence and suitability of the essential resources, tools, and infrastructure required to execute a study efficiently and securely. In this study, I ensured access to suitable facilities and resources necessary for conducting in-depth interviews, observations, and data analysis. This access enables me to collect and analyze data in a secure, comfortable, and distraction-free environment, thereby promot-

ing the credibility and consistency of the findings. By utilizing appropriate facilities, I minimized potential risks and discomfort to study participants. Moreover, this ensures that the research process adheres to the highest standards of integrity, safety, and ethics, ultimately contributing to the validity and reliability of the research outcomes.

Community Involvement

This encompasses the dynamic involvement and active engagement of community members, stakeholders, or the intended study population throughout the research journey, from initial planning to sharing research outcomes. In this study, I will prioritize community engagement and collaboration. By actively involving DRRM coordinators in the research process, I ensured that the study remains relevant, acceptable, and impactful. By engaging with the community, I not only produced more effective and meaningful research outcomes but also contributed to the development of contextually relevant strategies for disaster risk reduction management leading to more successful and resilient communities and schools.

Plagiarism and Fabrication

Researchers should strictly follow principles of academic honesty and integrity. This entails giving proper credit to the work of others, properly cite sources, verify information and data, presenting original contributions, and verifying the accuracy and authenticity of data. In this study, I employed tools like plagiarism detectors and maintain thorough documentation of my research procedures to ensure that my work is devoid of plagiarism and that all data and discoveries are authentic and reliable. By upholding these principles, I enhanced the credibility and trustworthiness of the research community.

2.6. Role of the Researcher—As an unbiased research facilitator and promoter, I am responsible for ensuring that the research process

is conducted fairly, objectively, and without personal bias, prejudice, or influence from outside sources. In this study, I cultivated a research

environment that values openness, honesty, and fairness. By doing so, I encouraged DRRM coordinators to share their authentic experiences and perspectives. By maintaining objectivity and avoiding undue influence, I generated trustworthy insights that can inform evidence-based practices, ultimately contributing to the betterment of the implementation of disaster risk reduction management in elementary schools. My commitment to impartiality ensures that data collection and analysis are conducted without bias, prejudice, or agenda. As an expert in qualitative methods, I am familiar with various qualitative research techniques, such as interviews, focus groups, and participant observation. In conducting this qualitative study on DRRM coordinators, I drew upon my expertise in designing, conducting, and analyzing in-depth interviews, observations, and thematic analysis. My proficiency in qualitative research methods enables me to investigate complex social phenomena, such as the dynamics of DRRM coordinators in ensuring safety and preparedness of the schools in case of unforeseen circumstances. As a data collector and keeper, I gather information from various sources such as interviews or observations, and I ensure accurate and secure storage of this information. In conducting this research, I adhered to ethical guidelines to safeguard participants' privacy and confidentiality. I ensured that all data, including interview transcripts, observation notes, and documents, are accurately recorded, securely stored, and anonymized to protect participants' identities. This meticulous data management approach maintains the integrity of the research process, enabling the production of credible, reliable, and generalizable findings. By structuring and documenting the data in a transparent

and accessible manner, I facilitate future examination, verification, and utilization of the research outcomes by scholars, educators, and practitioners in the fields of education. As a data analyst, I analyzed the gathered data to discover trends, patterns, and valuable perspectives in accordance with the research query. In this qualitative study on DRRM coordinators in elementary schools, I employed rigorous data analysis methods, including coding, thematic analysis, and constant comparison. These meticulous approaches enable me to meticulously examine the data, identify patterns, and uncover nuanced insights that contribute meaningfully to the existing body of knowledge. Through this in-depth analysis, I gained a profound understanding of the complex dynamics between DRRM coordinators and the challenges they faced in the implementation of disaster risk reduction management in elementary schools. Finally, as an organizer and presenter of data, I am tasked with synthesizing and communicating the research findings concisely and coherently. This entails skillfully conveying the study's objectives, approaches, outcomes, and ramifications through written documents, presentations, or alternative means of transmitting information. In disseminating the findings of this study on the experiences of DRRM coordinators of elementary schools, I prioritized clarity, accessibility, and practical applicability. I presented the results in a clear, concise, and engaging manner, avoiding technical jargon and ensuring that the implications and recommendations are easily understandable. By doing so, I facilitated the effective communication of the research outcomes to the intended audience, including educators, policymakers, and scholars in the fields of education.

2.7. Data Collection—In the gathering of data, this study employed a systematic procedure. Several steps were taken in adherence

to the proper data collection procedure. This was done in order to ensure the accuracy and objectivity of the data collection. The follow-

ing is the step-by-step process of gathering the data needed. Securing endorsement from the Dean of Graduate School, the Schools Division Superintendent, and the School Principal To initiate the data collection process, I secured endorsements from key stakeholders including the Dean of the Graduate School at Rizal Memorial Colleges, the Schools Division, and the Superintendent, the School Principal. This process involves submitting formal letters outlining the research objectives and methodology, accompanied by any supporting documents. This crucial step took place within the Month of March 2025, ensuring that all necessary permissions are in place before proceeding with the collection of data. This proactive approach not only facilitates compliance with ethical standards but also fosters a cooperative environment among all parties involved.

Asking Permission from the Schools Division Superintendent Upon receiving endorsement, I requested permission from the school's division superintendent. This requires submitting a formal letter detailing the research proposal and its significance to the educational community. Along with the letter, I attached Chapters 1 and 2 of my dissertation and the research instrument, clearly explaining the study's objectives and the process of participant identification. Moreover, I waited for the response from the Schools Division Superintendent (SDS) before proceeding with the data collection. This step undertook during the last two weeks of March 2025, ensuring that all necessary approvals are in place to conduct the research ethically and effectively.

Asking for Permission from the School

2.8. Data Analysis—After collecting the data, I embarked on data coding and thematic content analysis. This involves methodically structuring the transcribed data into categories, subcategories, and themes from the interview

Heads

Once permission is granted, I sought approval from the school heads of the selected institutions. This step involved submitting formal request letters to each school head, outlining the research's purpose and the expected data collection timeframe. I asked for permission to conduct the study on the first week of April 2025.

Obtaining Consent from the Participants

With the school heads' approval, I asked for consent from the research participants, through informed consent forms. These forms clearly explain the purpose of the research, participant rights, and confidentiality measures. This consent process ensures that the participants are fully informed and agree to participate. Asking for consent from participants were done in the second and third week of April 2025.

Conducting the Interview

Upon securing consent from all participants, I scheduled and conducted the interviews using a structured or semi-structured interview guide to ensure consistency and reliability in data collection. The interviews took place in the first two weeks of May 2025.

Transcribing the Responses of the Interviewees

Following the interview sessions, I meticulously transcribed the interviewees' remarks, taking diligent account of non-verbal cues and contextually relevant details. This procedure used audio recordings and field notes to comprehensively capture the breadth of participants' reactions. The transcription of interviewee responses was done on the last two weeks of May 2025.

dialogues. By discerning patterns and connections within the data, I formulated conclusions and glean insights directly related to the research objectives. This process allows me to interpret the data effectively, ensuring that the

findings accurately reflect the experiences and perspectives of the participants. In this study, I employed Creswell's Thematic Analysis approach, which is particularly suited for encompassing a range of perspectives and portrayals in participants' feedback. Adopting thematic analysis authenticates the portrayal of individual components and facilitates the categorization of identified patterns within the provided responses. Thematic analysis is a qualitative research technique used to recognize, scrutinize, and interpret patterns or themes present within qualitative data in textual, visual, or other formats. As a qualitative research approach, thematic analysis allows researchers to systematically arrange and dissect complex data sets. It involves searching for overarching themes that encapsulate the narratives embedded within the data. This process necessitates the identification of themes through the meticulous examination and repeated review of transcribed data (Dawadi, 2020). This methodical approach helps ensure that the analysis is both comprehensive and reflective of the data collected, providing deep insights into the study's objectives.

2.9. Framework of Analysis—The framework of analysis in phenomenological research is a methodical and structured approach to data analysis, interpretation, and presentation. In this research study, I made use of Colaizzi's method to analyze data from the interviews and discussions with the participants regarding their lived experiences in school-based disaster risk reduction. According to Morrow et al. (2021), Colaizzi's (1978) method features a distinctive seven-step process that offers a rigorous analysis, closely adhering to the data at each stage. This method culminates in a concise yet comprehensive description of the phenomenon under study, which is validated by the participants who experienced it. The effectiveness of this approach relies on rich first-person accounts of

Therefore, I used Creswell's Thematic Analysis in my research, which necessitated extensive theming and transcript interpretation. According to Caulfield (2019), there are multiple essential phases in Creswell's Thematic Analysis, including familiarization, coding, generating themes, reviewing themes, defining and labeling themes, and writing up. I become fully immersed in the intricacies and subtleties of the content as I become acquainted with the data to begin this process. After that, I start categorizing the data using semantic richness to group different informational components. I created themes that encapsulate the main ideas of the data using these codes. After that, these themes are examined and improved upon them to make sure they appropriately depict the dataset. Every theme has a definition and name that elucidates the fundamental ideas. The last step entails combining the themes and insights into a cohesive article that clearly conveys the study's conclusions. This methodical approach guarantees a comprehensive examination and enhances the comprehension of the information.

experiences, which can be collected through various means. Although face-to-face interviews are common, data can also be gathered from written narratives, blogs, research diaries, online interviews, and other forms. This method enables researchers to uncover emergent themes and explore the intricate relationships between them (Wirihana et al., 2018).

Data Familiarizing Through iterative readings and re-readings of the interview transcripts, I meticulously analyzed the narratives of DRRM coordinators of elementary schools, aiming to distill a rich understanding of their experiences, perspectives, and strategies for implementing disaster risk reduction management. This rigorous review process allows me to immerse myself in the data, gaining a nuanced

and contextualized understanding of the complexities and challenges faced by teachers in addressing disaster risk reduction. By repeatedly engaging with the transcripts, I was able to identify subtle themes, patterns, and meanings that might have otherwise gone unnoticed, ultimately facilitating a more sophisticated and insightful analysis of the teachers' challenges and strategies.

Identifying Significant Statements

Through a systematic and meticulous examination of the interview transcripts and written narratives, I identified and extracted specific statements made by the DRRM coordinators that directly pertain to their strategies for disaster risk reduction management. This rigorous process involves carefully combing through the data to pinpoint phrases, descriptions, and anecdotes that shed light on the teachers' challenges, strategies, and insights. By conducting this thorough examination, I ensured that my analysis remains focused on the research phenomenon, providing a robust foundation for subsequent thematic development and analysis. This step enables me to distill the essence of the teachers' narratives, ultimately informing a nuanced understanding of the complex dynamics involved in implementing disaster risk reduction management. Formulating Meanings Upon identifying key statements from the narratives of elementary school teachers who are DRRM coordinators, I meticulously interpreted the meanings embedded within these statements, focusing on those that pertain to their strategies for implementing disaster risk reduction. To maintain an authentic and participant-centered analysis, I engaged in bracketing, acknowledging, and setting aside my own biases and assumptions. By actively recognizing and suspending my own interpretations, I strived to remain grounded in the teachers' lived experiences, ensuring that my analysis accurately reflects their challenges, strategies, and insights. This systematic and self-aware approach enables me to uncover rich,

contextualized insights into the complexities of implementing disaster risk reduction management.

Clustering Themes

I ensured a rigorous analysis that remains true to the participants' experiences by grouping the identified meanings into themes that are shared by all accounts. Throughout this process, presuppositions must be bracketed, especially to avoid any possible influence from existing theories. By letting the themes naturally arise from the data rather than being influenced by outside forces, this preserves the integrity of the analysis.

Developing an Exhaustive Description

I incorporated every theme generated in the previous step into a comprehensive and all-encompassing description of the phenomenon that I write. By integrating these themes, I created a rich and detailed portrait that captures the essence and complexity of the teachers' challenges, strategies, and insights. This exhaustive description ensures that the final representation presents a multifaceted perspective on the teachers' challenges, acknowledging the diversity and depth of their narratives. By doing so, I provided a thorough and contextualized understanding of the phenomenon, highlighting the intricacies and variations that characterize the teachers' approaches to implementing disaster risk reduction management. Producing the Fundamental Structure I broke down the comprehensive description of DRRM coordinators' challenges and strategies into a concise yet meaningful, statement that encapsulates the fundamental elements essential to understanding the complexities of disaster risk reduction management. This succinct synthesis effectively communicates the core of the teachers' challenges, focusing on the critical components that are vital to grasping the phenomenon's underlying structure. Seeking Verification of the Fundamental Structure I ask participants if the fundamental structure statement accurately reflects

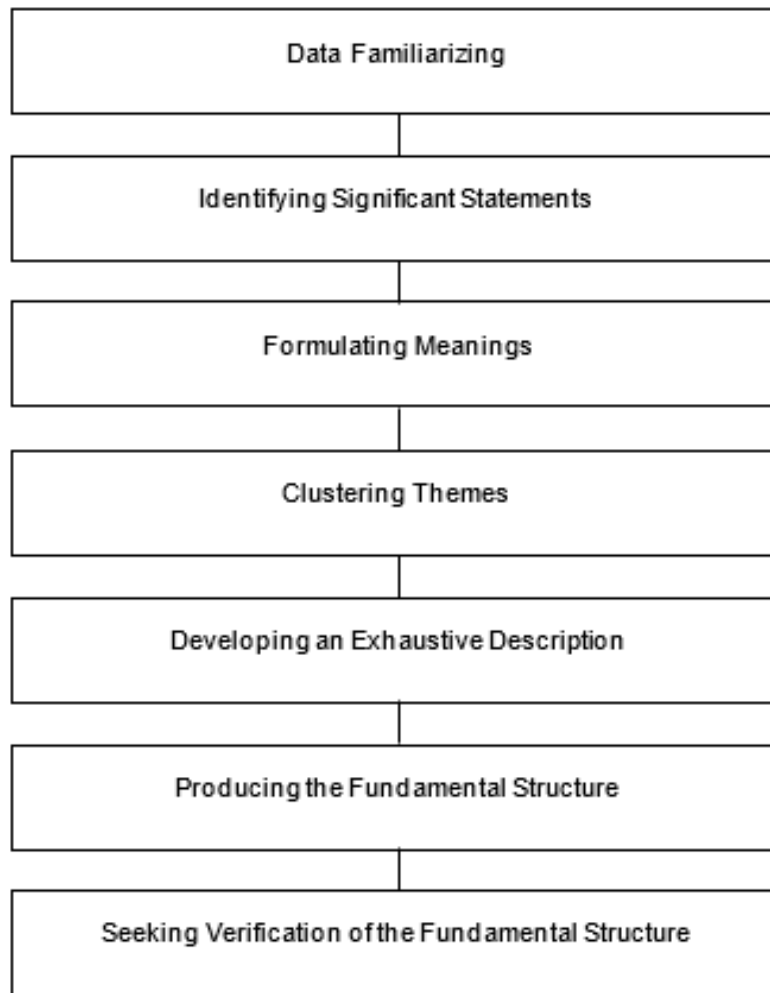


Fig. 2. Analytical Framework of the Study

their experience, either by returning it to all participants or, in larger studies, to a subsample. I considered going back and changing the earlier stages of the analysis in light of their comments. Through this iterative process, the validity and credibility of the findings are increased, and the analysis is kept firmly based on the perspectives of the participants. The following figure

illustrates this rigorous process, highlighting each step to comprehensively explain the actions taken to comprehensively analyze the data. Figure 2 shows that the framework offers a systematic approach to analyzing qualitative data, ensuring that the results are extracted in an organized manner and interpreted in a meaningful way.

2.10. Trustworthiness of the Study—The trustworthiness of a study is about how reliable, sensible, and authentic the research results are, ensuring that the conclusions are trustworthy and accurate. In qualitative research, factors like credibility, transferability, confirmability,

and dependability are often used to evaluate how reliable the study is. These considerations are further described below, according to Guba (1981).

Credibility

Building credibility entails proving that the

results are accurate. Credibility is important for this study because it evaluates if the results accurately represent the realities, experiences, and implementation strategies of elementary school teachers with school-based disaster risk reduction. To ensure the accuracy and trustworthiness of the findings, I engaged in prolonged conversations with DRRM coordinators of the respective elementary schools, gathering rich, contextualized insights into their experiences and strategies. Additionally, I employed triangulation, collecting data from multiple sources, including in-depth interviews and supplementary questionnaires. To further validate the interpretations, I conducted member checking by sharing a preliminary draft of the findings with the participant. This iterative process enables me to confirm, refine, or revise my understandings, ensuring that the final results accurately reflect the teachers' lived experiences and strategies.

Transferability

The degree to which the results of this study can be used in different situations or with different populations is referred to as transferability. The particular insights are closely linked to the experiences and implementation strategies of elementary school teachers with school-based disaster risk reduction. Although the insights gained are grounded in the specific experiences of DRRM coordinators, I provided a description of the research context, methodology, and participants' perspectives. This rich narrative enables educators, school administrators, researchers, and other stakeholders to assess the study's transferability, determining the extent to which the findings can be applied to similar contexts.

Confirmability

Confirmability deals with the study's objective by making sure that the respondents, not

my personal prejudices or biases, shaped the findings. I kept a thorough audit trail that details every step of the research process, from data collection to data analysis decisions, in order to ensure confirmability. To ensure confirmability, I maintained methodological transparency and objectivity throughout this study on DRRM coordinators' experiences and strategies in implementing disaster risk reduction management. I meticulously documented every stage of the research process, from data collection and transcription to data analysis and interpretation, creating a comprehensive audit trail. This detailed record enables other researchers to trace the study's development, examine the decisions made, and evaluate the objectivity of the findings. Dependability Dependability proves that the study results are reliable and repeatable in similar situations. Dependability in this study was attained through meticulous documentation of the entire research procedure, including the methods used for data collection and analysis. To establish dependability, I ensured that the findings of this study on DRRM coordinators' experiences and strategies are consistent and repeatable. I achieved dependability through meticulous documentation of the research methodology, including data collection procedures, data analysis techniques, and decisions made throughout the study. By following these standards, the research not only offers valid and trustworthy conclusions regarding the experiences and implementation strategies of elementary school teachers with school-based disaster risk reduction, but it also offers a framework that researchers and other educators can use to compare similar learning environments. This methodology enhances the study's standing in the academic community and provides insightful information for upcoming studies and instructional design.

3. Results and Discussion

In this chapter, the research questions relevant to the study are presented alongside the responses provided by the participants. This analysis seeks to clarify the common perspectives and enhance the understanding of the subject matter. This segment unfolds the elementary teachers' experiences, coping strategies, and educational insights regarding school disaster risk reduction management. Using thematic analysis, it revealed the following emerging themes: Elementary teachers' experiences found personal disaster experience, limited DRRM training and resources, and stakeholder collaboration as the emerging themes. Coping strategies include context-based planning and learner-centered preparedness. Thus, educational insights revealed the emerging themes- community collaboration and hands-on learning.

3.1. Experiences of Elementary Teachers in Implementing Disaster Risk Reduction Management at School—Teachers wear many hats, taking on various roles to support not only the academic growth of their learners but also their overall development and well-being. They serve as mentors, counselors, and advocates, nurturing each child's life's emotional and social as-

pects. In addition to fostering personal growth, teachers' roles are fundamental in educating learners about safety protocols and disaster preparedness, ensuring that they are equipped to respond effectively in emergencies. By creating a culture of awareness and resilience, teachers empower learners to protect themselves and their peers, cultivating a safer environment for everyone.

3.1.1. Personal Disaster Experience—Through personal disaster experiences, individuals gain a profound understanding of risk management's complexities. When faced with the unpredictable nature of calamities, the lessons learned go beyond theoretical knowledge, revealing the emotional and psychological impacts on communities. This lived experience fosters a deeper empathy for those affected, equipping individuals with insights that can guide more effective planning and response strategies. In the context of elementary education, teachers have uniquely positioned themselves to translate these insights into actionable practices. Their responses reflect a commitment to creating a safer learning environment. The participants' reflections highlight how their encounters with natural disasters have become a strong foundation for implementing disaster risk reduction management in schools. This insight aligns with the view of Metych (2024), who defines natural disasters as destruc-

tive events caused by natural phenomena such as earthquakes, typhoons, and volcanic eruptions. These types of disasters are common in the geographic context of the current study, making it likely that many teachers have faced them firsthand. Their direct experiences have heightened their awareness and deepened their commitment to disaster preparedness. These teachers are often more proactive and confident in guiding students during emergencies because they have personally navigated similar crises, reinforcing the value of lived experience in shaping effective disaster responses within the school setting. The importance of attitude and knowledge in disaster preparedness is highlighted in the study of Alkalash et al. (2023), which found that secondary school students in the Western Region of Saudi Arabia had fair knowledge but showed a highly positive attitude toward disaster preparedness. Teachers who have personally experienced disasters tend to model such positive attitudes and behaviors, drawing from their re-

sponses to past events. Their lived experiences make them more effective in promoting calm, structured responses during drills and emergencies, helping students avoid panic. These teachers often advocate for disaster response simulations in the curriculum, recognizing their value in building readiness. In the Philippine context, the study by Loremia and Alcover (2020) revealed that disaster risk reduction (DRRM) education positively influenced learners' awareness and preparedness, particularly regarding actions to take before, during, and after disasters. Teachers who have lived through disasters often serve as credible and relatable sources of information, drawing from personal stories to reinforce lessons. Their familiarity with the realities of disaster scenarios strengthens students' engagement and reinforces the importance of disaster preparedness in everyday school life. However, Go (2019) warns that many schools often treat disaster risk reduction as a supple-

mentary topic. Teachers with personal disaster experience challenge this perception by treating DRRM as essential. They are more likely to integrate disaster preparedness into various aspects of teaching, ensuring that lessons are not rushed or superficial. Their conviction is grounded in the reality that lives can depend on the preparedness of school communities. Lastly, the emotional and psychological impacts of disasters cannot be overlooked. According to Zulch (2022), educators frequently encounter challenges in supporting students' emotional needs after disasters, especially when they are processing their trauma. Teachers who have previously experienced such situations are often more empathetic and better equipped to handle the psychological aftermath. Their experiences highlight the need for training programs that include mental health support strategies as part of schools' comprehensive disaster risk reduction management approach.

3.1.2. Limited DRRM Training and Resources—In exploring the experiences of elementary teachers in carrying out disaster risk reduction and management in schools, a pattern of uncertainty and hesitation began to emerge. Teachers recounted moments when they were expected to take the lead during emergency drills or natural calamities yet were unsure of the correct procedures or best practices to follow. Their stories often relied on instinct, peer guidance, or past occurrences rather than structured knowledge or formal preparation. These narratives pointed to deeper challenges in implementing DRRM in their schools. The participants' responses reveal how these challenges shape their everyday experiences and decisions in disaster preparedness and response. The responses from the participants align closely with findings in several pieces of literature regarding the challenges teachers face in disaster risk reduction and management (DRRM). One significant issue that emerged from the par-

ticipants' accounts is the lack of training resources, which is frequently cited as a barrier to effective DRRM implementation in schools, especially in disaster-prone regions. Teachers shared similar concerns about their limited access to educational materials, training, and infrastructural support, which hindered their ability to equip students with the necessary skills for disaster preparedness adequately. This was resonated by Arcegon, Olarga, and Sumandal (2024), who noted that many teachers feel ill-prepared to teach DRRM due to insufficient resources, contributing to a gap in students' understanding of safety protocols during emergencies. The teachers' experiences in this study reflect these findings, highlighting the importance of resource allocation for better DRRM education. Moreover, the participants' responses further emphasize the impact of inadequate funding on school infrastructure, which directly affects teachers' ability to create safe learning environments. The lack of properly maintained fa-

cilities in disaster-prone areas is another common challenge mentioned by the participants. This situation was also highlighted by UNICEF (2021), which reported that many schools in such areas lack essential infrastructure improvements, such as reinforced buildings or emergency supplies. As a result, teachers cannot conduct practical disaster risk reduction training or preparedness drills. The participants' experiences resonate with this issue, illustrating the challenges they face when integrating disaster risk reduction into their daily routines, particularly when faced with unsafe school environments. Another prominent experience expressed by the teachers is the lack of adequate training to hone their knowledge and skills in disaster risk reduction. The absence of comprehensive training for teachers in DRRM significantly impacts their ability to prepare students for natural disasters. Despite the increasing frequency and intensity of global disasters, many educators report feeling inadequately prepared to address these emergencies in their classrooms. Ritchie and MacDonald (2020) emphasized that teachers often lack access to specialized training that covers both the theoretical and practical aspects of disaster risk reduction, resulting in a knowledge gap that can jeopardize the safety of students during emergencies. This sentiment was reflected in the teachers' responses, with many stating they felt unqualified to handle disaster situations effectively due to this gap in training. Furthermore, the existing training programs often focus primarily on procedural drills rather than fostering a deeper understanding of disaster management principles. While teachers participate in drills, they frequently do not receive adequate training on effectively integrating disaster risk reduction concepts into their curricula. Nakanon and Yamori (2021) noted that this lack of pedagogical training limits teachers' ability to educate students about the underlying causes of disasters and the im-

portance of resilience. The participants in this study expressed frustration with this gap, noting that without proper training, they struggle to instill a comprehensive understanding of disaster risk reduction among their students, undermining the broader goals of disaster preparedness education. In addition, the participants expressed frustration with the lack of comprehensive training programs, which is a critical component in addressing the gaps in DRRM preparedness. Many teachers shared that they had received minimal or no professional development in disaster preparedness, leaving them uncertain about effectively implementing DRRM strategies. Gaudiel (2023) emphasized that the absence of formal training programs is a significant factor contributing to the challenges faced by teachers in disaster risk reduction management. The participants echoed this sentiment and noted their reliance on outdated knowledge or personal experiences rather than current best practices. The responses from the teachers highlight the need for targeted professional development that includes specific DRRM training to enhance teacher preparedness and, ultimately, improve student safety. The need for comprehensive DRRM training was also evident in the experiences shared by the teachers, reinforcing the call for policy changes to integrate disaster risk reduction into teacher certification programs and professional development. The World Health Organization (2021) stresses that incorporating disaster preparedness training into teacher training programs is crucial for creating a culture of resilience in schools. The teachers in this study echoed this point, expressing a strong desire for more consistent and structured training opportunities. By prioritizing DRRM in teacher training, schools can foster a more resilient educational system where educators are well-equipped to manage disaster risks and respond effectively to emergencies.

3.1.3. Stakeholder Collaboration —In making schools safer and more prepared for disasters, teachers often navigate responsibilities beyond the classroom. From organizing drills to promoting disaster awareness among students, much of their work depends on personal initiative and the strength of support systems surrounding them. Subtle cues from their stories reveal how crucial cooperation from various sectors can be. Whether it involves coordination with school heads, engagement with local government units, or communication with parents and community leaders, the effectiveness of disaster preparedness efforts is deeply tied to how well these relationships' function. As their experiences unfold, it becomes clear how these dynamics shape their roles and influence how disaster risk reduction management is carried out in schools. The participants' experiences highlight how crucial collaboration is in implementing disaster risk reduction management (DRRM) in schools. Bonquillo (2020) supports this by emphasizing the value of partnerships between educational institutions and local emergency management agencies. According to his research, these partnerships enable knowledge sharing and allocating necessary resources that help teachers understand local risks and response strategies. However, Bonquillo also pointed out that these collaborations are often underutilized, echoing the participants' concerns about missed training opportunities that reflect their communities' specific needs. The Global Facility for Disaster Reduction and Recovery (2022) further supports the participants' experiences by underscoring the uneven effectiveness of community partnerships. While such collaborations can be powerful tools for resource mobilization, the report found that many schools lack the established networks to maintain consistent and supportive relationships with external partners. This finding mirrors the frustrations expressed by teachers who face shortages in basic materials like

emergency kits and educational tools, which could otherwise be addressed through stronger local collaborations. Smith et al. (2021) emphasized the importance of involving families and the broader community in school preparedness activities, particularly safety drills. Their research found that community participation fosters a collective sense of responsibility and strengthens the overall impact of disaster risk reduction efforts. This aligns with the participants' reflections on how including parents in drills can extend disaster awareness and preparedness beyond the classroom, supporting a more unified and community-driven approach to school safety. In addition, Rahman et al. (2023) highlighted the significance of partnerships between schools and local emergency services, such as fire departments and disaster response units. Their research showed that these collaborations lead to more thorough and responsive emergency planning, with input from various stakeholders. Teachers in the study expressed similar views, noting that when local responders are involved, emergency plans become more practical and rooted in the realities of the school and its surrounding environment. Medel, Kusar, and Masood (2023) also emphasized the role of collaboration in building school readiness. Their study focused on the benefits of coordinated efforts between schools and emergency management agencies, particularly through joint training exercises and workshops. These efforts ensure educators and responders are prepared and aligned to respond to disasters. The participants' experiences reflect this insight, as they voiced the need for more integrated training opportunities that connect school efforts with broader community preparedness systems. Figure 3 shows presents copceptual model illustrating the experiences of elementary in implementing disaster risk. The circle present the experiences of elementary teachers in implementing disaster risk,the oval represent the experiences of the teachers with disasters sig-

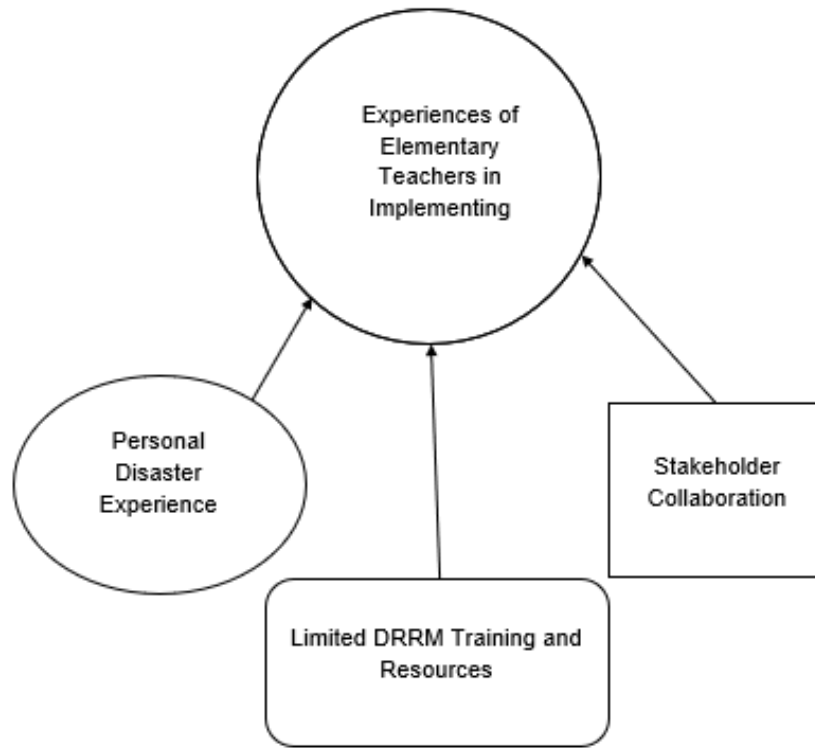


Fig. 3. Experiences of Elementary Teachers in Implementing Disaster Risk Reduction Management at School

nificantly shape their approach to disaster risk implementation, the square represent the level of stakeholder collaboration impacts the effectiveness of disaster risk management in school and the rectangle represent the insufficient training and resources hinder the teacher's ability to effectively implement disaster risk reduction

measures. The figure suggest that these three factors interact to influence the overall experiences of elementary teachers in implementing disaster risk in their schools. the figure also present a framework of understanding the complex interplay of factors affecting disaster preparedness in school.

3.2. Coping Strategies of Elementary Teachers In Implementing Disaster Risk Reduction Management—Elementary teachers face many challenges in implementing disaster risk reduction management, yet they find ways to adapt and persist. Without consistent training or resources, many rely on teamwork- sharing ideas, supporting each other, and learning from past experiences. Some take the initiative

to seek out information independently, using available materials or attending local orientations when possible. Others focus on staying calm and composed for their students, knowing that their response sets the tone in times of crisis. These everyday actions reflect how teachers cope, not through formal systems alone, but through their initiative, collaboration, and steady presence in uncertainty.

3.2.1. Context-Based Planning—

In disaster risk reduction management, a one-size-fits-all approach rarely meets the unique needs of every school. Elementary teachers often operate in diverse settings, each with limitations and risks, prompting them to adjust plans based on what is practical and available in their specific context. This planning goes beyond standard procedures, requiring teachers to respond to the conditions around them- the school's location, resources, or student needs. As they navigate these realities, their strategies reflect how deeply context influences their decision-making. The following responses from the participants offer insight into how this approach takes shape in their daily efforts. The experiences shared by the participants reflect how essential context-based planning is in their efforts to implement disaster risk reduction management (DRM) in schools. This approach is supported by Sedighi (2020), who emphasized that safety drills are a critical tool in disaster preparedness, allowing teachers to tailor emergency procedures to their schools' specific needs and conditions. Regular drills help students become familiar with evacuation routes and safety measures and allow teachers to assess and refine their strategies. The effectiveness of these drills often depends on how well they are adapted to the student's age, classroom layout, and available resources- factors that teachers must consider in real time based on their unique school environments. Sandoval (2023) further reinforces the importance of situational adjustments by highlighting how safety drills serve as a diagnostic tool for teachers. Educators can pinpoint weaknesses in their current emergency procedures and communication systems through these drills. This allows them to make informed changes that reflect the realities of their school's setup. Engaging in reflective discussions after drills, teachers gather insights from students and staff, enabling them to adjust their disas-

ter response plans to suit their specific context-comparable to how the participants described in their practices. Creating a safe and responsive learning environment is vital in context-based DRM planning. Mutasa and Rudhumbu (2018) argued that integrating disaster preparedness into the curriculum and involving the broader school community leads to more effective response strategies. Their findings align with the experiences of teachers who adapt lessons, routines, and safety measures to the age and understanding of their students, ensuring both relevance and clarity. These practices show how teachers build preparedness into daily routines, responding to the conditions and capacities of their classrooms. Clapper (2019) also emphasized the importance of adapting the physical environment as part of context-specific planning. Teachers must often work with limited resources. However, through regular classroom assessments, they make thoughtful decisions to reduce hazards. It includes whether by repositioning furniture, ensuring clear signage, or checking for structural risks. These small but significant adjustments mirror the participants' planning experiences within their environment's limitations to protect students effectively during emergencies. Furthermore, Nakano and Yamori (2021) highlighted how teachers can enhance disaster preparedness through lesson integration and real-life simulations, especially when grounded in the specific risks and realities of the school's location. This strategy supports the participants' use of hands-on activities and scenario-based learning to help students build awareness and problem-solving skills. By weaving disaster preparedness into daily lessons and using relatable examples, teachers empower students in ways that reflect both their communities' needs and their schools' practical limitations.

3.2.2. *Learner-Centered Preparedness —*

In the face of limited resources and formal training, elementary teachers often turn to learner-centered preparedness as a practical approach to implementing disaster risk reduction management in schools. This strategy involves tailoring preparedness activities to young learners' developmental levels, needs, and experiences, making disaster education more relatable and easily grasped. Rather than relying solely on rigid protocols, teachers creatively integrate safety concepts into daily lessons, routines, and interactive activities to build student awareness and confidence. Consequently, focusing on the child's perspective fosters beyond preparedness but also a sense of responsibility and calm during emergencies.

The participants' responses reflect a shared commitment to placing students at the center of disaster risk reduction management efforts. This strategy aligns with the principles of learner-centered preparedness. This approach is supported by Zulch (2022), who found that involving students in developing preparedness plans enhances their understanding of disaster risks and fosters a stronger sense of responsibility. By engaging students in discussions, drills, and age-appropriate activities, teachers improve students' readiness and cultivate a culture of preparedness within the school community. Such practices empower learners to think critically and act responsibly during emergencies- an outcome echoed in the participants' experiences. Seddighi (2020) adds that regular safety drills are key in promoting student preparedness. These drills help students internalize emergency procedures through repetition and simulation, increasing their confidence and reducing panic in real-life situations. The participants' accounts demonstrate how these drills are tailored to suit the developmental level of students, reinforcing the learner-centered approach by ensuring that preparedness practices

are understandable and meaningful to young children. Similarly, Tang and Hu (2022) highlight the influential role of teachers in shaping students' attitudes toward disaster preparedness. When educators approach drills with seriousness and enthusiasm, students are more likely to engage positively and view safety training as an essential part of their learning. The participants' narratives show how they use their demeanor and teaching style to model calm and readiness, helping students to internalize disaster risk reduction principles with greater ease. Mutasa and Rudhumbu (2018) also emphasize the importance of integrating disaster preparedness into the school curriculum in ways that involve and educate students directly. By embedding safety concepts into daily instruction, teachers create a learning environment that normalizes awareness and readiness. As reflected in the participants' responses, this strategy allows disaster risk reduction to become a natural part of classroom routines rather than a separate, abstract topic. Finally, Nakano and Yamori (2021) point out that existing training programs often lack guidance on effectively teaching disaster risk reduction. Despite this, the participants adapt by focusing on what works for their students- designing activities and discussions grounded in learners' real-life experiences. In doing so, they demonstrate how a learner-centered approach can serve as a powerful coping mechanism without formal pedagogical training on disaster management. Figure 4: shows a concept map outlining the coping strategies of elementary teachers in implementing disaster risk reduction management. The central idea is broken down into two main coping strategies. The Context Based Planning this strategy emphasizes creating disaster preparedness plans. The Learner Centered Preparedness focus on involving students actively in disaster process making it relevant to their understanding and needs.

3.3. *Educational Insights in Implementing Disaster Risk Reduction Management —*

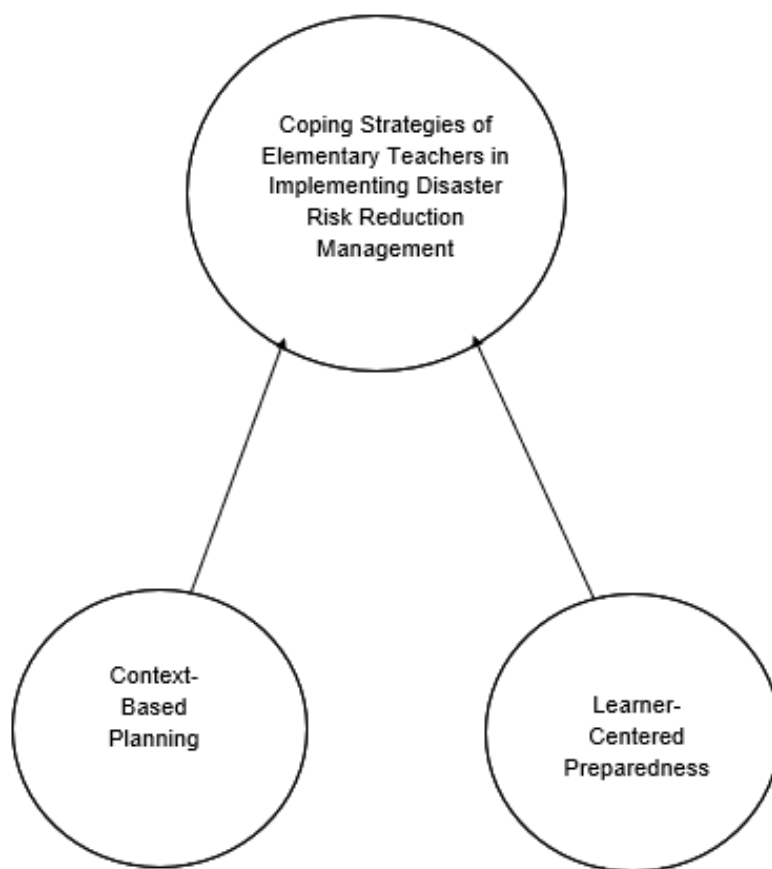


Fig. 4. Coping Strategies of Elementary Teachers in Implementing Disaster Risk Reduction Management

For many elementary teachers, implementing disaster risk reduction management is not just about following protocols- it becomes a journey of learning and adaptation. In this study, teachers shared how their firsthand experiences with school-based emergencies and preparedness activities have shaped their understanding of the risks and responsibilities of their role.

3.3.1. Community Collaboration— Through implementing disaster risk reduction management, elementary teachers have come to value the vital role of community collaboration in strengthening school preparedness. This insight grows from the understanding that schools cannot operate in isolation when it comes to ensuring the safety of children during emergencies. Teachers learn that engaging parents, local officials, and emergency services create a supportive network that enhances planning and response efforts. By fostering open communication and shared responsibilities, schools are better equipped to respond to disasters in a coordinated and effective manner. In this study, participants shared how involving the broader community in their disaster preparedness activities improved their confidence and fostered a sense of unity in keeping learners safe. The insights shared by participants highlight the crucial role of community collaboration in supporting disaster risk reduction management in schools. The United Nations Children’s Fund (UNICEF, 2021) emphasizes this through the Safe Schools initiative, which promotes safer learning environments by improving infrastructure, enhancing preparedness planning, and fostering community involvement. This framework positions schools as central to community resilience and recovery. Teachers in the study observed that stronger connections with the local community led to more effective planning and smoother execution of disaster risk strategies. Additionally, the Global Facility for

Over time, these experiences offer valuable educational insights, guiding them to weave disaster awareness into everyday classroom instruction in age-appropriate and meaningful ways for young learners. As they adapt to the realities of limited resources and evolving school needs, their growing insight helps bridge the gap between policy and practice.

Disaster Reduction and Recovery (2022) supports the importance of community partnerships by identifying their role in resource mobilization for disaster preparedness. However, the report notes that many schools struggle to establish these collaborations due to a lack of formal networks. Participants in this study described similar concerns, especially regarding limited access to emergency kits and preparedness materials. They emphasized that building strong local ties could help bridge these resource gaps and make disaster planning more practical and sustainable. In Mindanao, Pandapatan (2024) points to the necessity of community-based and context-sensitive approaches to disaster risk reduction. He underscores the importance of integrating local knowledge and support to respond effectively to frequent natural hazards in the region. Teachers in the study reflected this view, noting that community involvement allowed them to tailor strategies to local risks, such as floods and earthquakes, and to engage stakeholders in meaningful preparedness activities. Reinforcing the findings, Comighud (2020) also focuses on the challenges schools face that rely heavily on government resources for disaster risk reduction management. When funding is delayed or insufficient, teachers are often left without the necessary tools or support. Several participants shared similar experiences, stating that community collaboration helped fill the void left by limited public resources. Local contributions, whether through materials or volunteer support, became essential to

their preparedness efforts. On the other hand, Smith et al. (2021) present community involvement in school drills as a way to promote a shared responsibility for safety. Their findings show that when parents and community members participate in preparedness exercises, students take these activities more seriously, and the sense of safety becomes more deeply embedded in the school culture. Teachers in the study discussed the positive effects of involving families and neighbors in safety drills, which helped reinforce emergency protocols and extend disaster awareness beyond the class-

room. Ultimately, Rahman et al. (2023) also emphasize the benefits of collaboration between schools and local emergency services. These partnerships support the development of comprehensive emergency plans and ensure that schools are aligned with broader community response efforts. Participants in the current study recognized that involving agencies like fire departments and disaster response teams enhanced their planning and gave them greater confidence in handling emergencies. Working with these external partners allowed schools to prepare more cohesively and informally.

3.3.2. Hands-On Learning—One of the educational insights shared by elementary teachers in implementing disaster risk reduction management is the importance of hands-on learning in strengthening student preparedness. Teachers recognize that disaster-related concepts become more meaningful and easier to understand when students actively participate in evacuation drills, emergency simulations, and classroom demonstrations. This method helps reinforce safety procedures and builds students' confidence and critical thinking in emergencies. As shared in the responses, many teachers found that practical, experience-based learning created a more engaging and effective environment for teaching disaster awareness and response skills. The participants in the study emphasized that hands-on activities such as drills, role-playing, and real-life simulations played a crucial role in preparing students for disasters. They shared that these interactive strategies strengthened student engagement and allowed them, as teachers, to assess and adjust their instructional methods in real time. This insight aligns with Sandoval (2023), who underscores the value of safety drills as practical tools for evaluating a school's emergency preparedness. Beyond routine practice, drills provide educators with opportunities to examine the strengths and gaps in evacuation

procedures and communication systems. By observing how students respond during these activities, teachers are better equipped to refine disaster protocols, making the learning experience more meaningful and rooted in school needs. Building on this, Seddighi (2020) highlights the educational benefits of directly involving students in the disaster preparedness planning process. This approach enhances student awareness and fosters a sense of ownership and responsibility. The participants echoed this by noting how students became more attentive and confident when included in planning activities like designing classroom safety maps or participating in mock emergency scenarios. These hands-on engagements empowered learners to understand their roles during a disaster better, contributing to a more prepared and responsive school community. Integrating disaster preparedness into classroom lessons also emerged as a significant educational insight. According to Mutasa and Rudhumbu (2018), schools that consistently incorporate disaster risk reduction (DRR) into their curriculum, using practical activities and safety demonstrations, report improved student readiness. The study's participants confirmed this by sharing how they embedded simple safety instructions, group tasks, and scenario-based games into daily lessons.

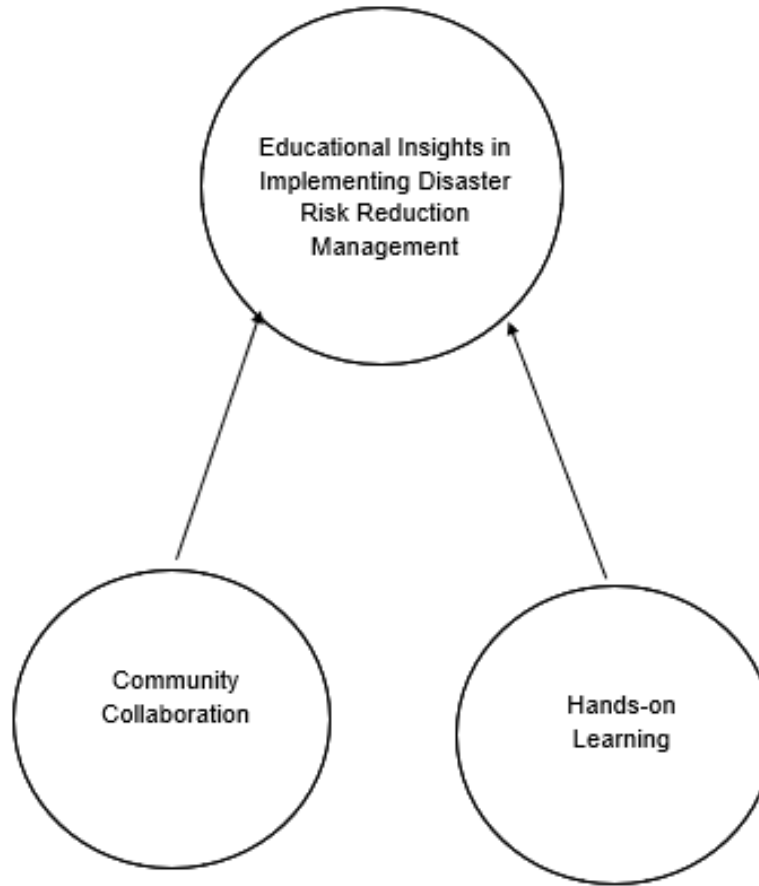


Fig. 5. Educational Insights in Implementing Disaster Risk Reduction Management

This allowed students to absorb safety concepts gradually and apply them confidently, which would not have been as effective through lecture-based methods alone. Finally, the role of teachers in modeling proactive attitudes during drills further reinforces the value of experiential learning. Tang and Hu (2022) emphasize that when teachers demonstrate commitment and seriousness in disaster simulations, students are more likely to treat the exercises with the same level of importance. Participants noted that their enthusiasm and consistent involvement encour-

aged students to participate actively and take safety measures seriously. These shared experiences fostered a classroom culture centered on alertness, cooperation, and preparedness. Figure 5: shows a concept map illustrating educational insights in implementing disaster risk reduction management the concept broken into two components: The Community Collaboration and Hands on Learning. The model suggest that a combination of community involvement and practical learning experiences are crucial for successful disaster risk reduction education.

4. Implications and Future Directions

This chapter comprehensively overviews the study's findings and explores their implications for future research. The study's primary objective was to examine the experiences, coping strategies, and educational insights gained from implementing disaster risk reduction management among

elementary teachers in the local schools of Tugbok East, District, Davao City.

4.1. Findings—A qualitative phenomenological approach was employed to address the research objectives, utilizing thematic analysis as the primary data interpretation method. In alignment with Creswell's (2018) guidelines, open-ended interview questions were used to elicit rich and in-depth participant narratives. This approach facilitated a deeper understanding of how elementary teachers conceptualize and apply the disaster risk reduction management at school. Based on the thematic analysis results, the first research question on the elementary teachers' experiences unfurls the following emerging themes: personal disaster experience, limited DRRM training and resources, and stakeholder collaboration. Meanwhile, the second research question focuses on the coping strategies revealed the emerging themes—context-based planning and learner-centered preparedness. Finally, the third research question delves into the teachers' educational insights. The emerging themes found are community collaboration and hands-on learning. The findings of this study provide valuable insights into elementary teachers' experiences implementing disaster risk reduction and management (DRRM) initiatives. In addressing the first research question, the themes of personal disaster experience, limited DRRM training and resources, and stakeholder collaboration emerged. The teachers' experiences in implementing disaster risk reduction and management (DRRM) were shaped by several key factors. One significant theme that emerged was personal disaster experience. Many teachers cited their firsthand exposure to disasters as a driving force in their commitment to DRRM activities. These personal encounters with disasters heightened their awareness of the importance of preparedness and influenced their approach to ensuring student safety. However, despite their strong motivation, teachers faced challenges due to limited DRRM training and resources. The lack of formal training opportunities and inadequate disaster preparedness materials often hindered their efforts' effectiveness. This shortage of resources made it difficult for teachers to develop comprehensive DRRM plans and adequately equip their classrooms. In response to these limitations, stakeholder collaboration became a crucial strategy. Teachers frequently collaborated with local government units, parents, and other community members, which helped compensate for resource shortages and ensured that disaster preparedness efforts were more fortified and community-centered. Regarding coping strategies, teachers displayed remarkable adaptability through context-based planning and learner-centered preparedness. The theme of context-based planning revealed that teachers were keen on designing disaster preparedness strategies tailored to their school's unique environment and the specific risks it faced. This localized approach enabled teachers to address the distinct challenges of their communities, ensuring that the plans were both relevant and practical. Furthermore, the learner-centered preparedness theme demonstrated that teachers emphasized involving students in the preparedness process. By focusing on students' needs and creating opportunities for active participation, teachers empowered learners to take ownership of their safety. This strategy helped students retain vital information and contributed to a sense of responsibility and preparedness that extended beyond the classroom. The educational insights revealed by teachers underscored the importance of community collaboration and hands-on learning in disaster risk reduction. The theme of community collaboration highlighted how teachers recognized the necessity of involving the broader community in DRRM efforts. Teachers emphasized that disaster preparedness should not be confined to the school but should be a

collective responsibility involving parents, local authorities, and other stakeholders. This community-wide approach created a stronger, more resilient support system for disaster management. Moreover, the theme of hands-on learning revealed the value teachers placed on experiential, practical learning in disaster preparedness education. Teachers found that students were more engaged and better equipped to respond to emergencies when actively involved in simulations and hands-on activities. This approach deepened their understanding of disaster preparedness and made the learning process more engaging and meaningful, preparing students for real-world situations. Overall, this

study highlights the critical role of elementary teachers in implementing disaster risk reduction and management in schools. Teachers demonstrate resilience through context-based planning, stakeholder collaboration, and learner-centered strategies despite limited training and resources. Their insights emphasize the importance of community involvement and hands-on learning in fostering a culture of preparedness. These findings contribute to a broader understanding of how educators can effectively integrate DRRM into their teaching practices and the need for continued support and resources to enhance school disaster resilience.

4.2. Implications—The result of the study revealed the following significant findings. Implementing Disaster Risk Reduction and Management (DRRM) among teachers is a complex and dynamic process shaped by personal experiences, community context, and institutional support. Teachers' preparedness efforts are influenced by their previous encounters with disasters, which are crucial in shaping their attitudes and practices toward risk reduction. These personal experiences, in turn, promote observational learning and build self-efficacy, both of which are foundational components of the Social Cognitive Preparation Model (SCPM). Teachers often navigate the challenges of DRRM with a combination of self-initiative, community collaboration, and professional engagement. In many instances, they draw upon past disaster experiences as a guide for current preparedness strategies, emphasizing the role of experiential learning in risk management. Their environment also shapes their actions, particularly the support from local government units, school administrations, and community stakeholders. This interplay between personal agency and environmental influence aligns with the SCPM, highlighting the

model's relevance in understanding teachers' approaches to disaster preparedness. Among the notable challenges identified were the limited training opportunities and insufficient access to DRRM resources. These constraints suggest the need for more targeted and sustained professional development programs. Such programs would provide teachers with practical knowledge and skills to effectively manage disaster-related risks. The study also points to the importance of continuous institutional support to help teachers build confidence and capacity in implementing DRRM strategies. Despite these challenges, teachers shared a range of proactive strategies and insights. One key theme was the value of context-based planning. Teachers emphasized that effective disaster preparedness must reflect their school communities' specific risks, resources, and needs. This insight suggests a need for localized disaster response plans that are flexible and responsive to each school's unique context. Additionally, teachers noted the importance of involving students in preparedness activities, recognizing that learner-centered approaches foster responsibility and awareness among young learners. Collaboration emerged as another essential element of success-

ful DRRM. Teachers highlighted the importance of partnerships between schools, local government units, and community members. These partnerships create a network of shared responsibility and promote resilience at the grassroots level. As observed in the study, a community-driven approach can contribute to more sustainable and impactful disaster preparedness initiatives. Furthermore, the study underscored the role of hands-on learning in strengthening DRRM education. Teachers found that experiential activities, such as simulations, drills, and scenario-based lessons- effectively engage students and build practical disaster response skills. These interactive learning opportunities deepen students' understanding of disaster risks and empower them to take active roles in promoting safety within their communities. In conclusion, the findings affirm that school-based DRRM is most effective when holistic, context-

aware, and community-centered. The Social Cognitive Preparation Model of Douglas Patton (200) provided a valuable framework for interpreting how personal experiences, environmental contexts, and collaborative efforts shape teachers' preparedness practices. How personal beliefs, behavior and environmental factors interact to influence disaster preparedness. Also the Theory of Plan Behavior (TPB) by Azjen (2019) explain how intention leads to action especially when there are both motivations and external influences. Educational institutions can play a pivotal role in cultivating a culture of resilience and readiness by investing in training, fostering local partnerships, and promoting student engagement through experiential learning. Through these efforts, schools become not only places of learning but also pillars of community safety and strength in the face of disaster.

4.3. Future Directions—Based on this study's findings, key stakeholders within the educational community must communicate and meaningfully apply the insights gained, particularly in the context of disaster risk reduction and management (DRRM) efforts.

Educational Leaders

For educational leaders, this study provides valuable insights into how teachers navigate the challenges of implementing DRRM initiatives despite limited resources and training. Understanding the significance of stakeholder collaboration and context-based planning allows for advocacy and facilitating more comprehensive DRRM strategies in schools. The research can guide the development of policies that promote teacher professional development in disaster preparedness, encourage allocating resources for DRRM tools, and create frameworks for fostering collaboration between schools and local communities, all of which contribute to more resilient educational environments.

School Heads

For the school heads, the findings suggest that fostering a culture that embraces collaboration and context-specific planning is essential for improving disaster preparedness. School leaders can prioritize integrating disaster risk reduction management into school curricula by adapting strategies to local risks and engaging the community in DRRM efforts. The insights can also inform decisions related to resource allocation, professional development, and community outreach, enabling school heads to create a supportive environment for teachers and students to implement and sustain DRRM practices effectively.

Teachers

For teachers, the study offers practical insights into how context-based planning and learner-centered preparedness can enhance disaster risk reduction management in the classroom. Teachers can apply these findings to improve their disaster preparedness efforts by

tailoring plans to their specific school environments and involving students. The research provides a foundation for refining teaching methods, fostering student engagement, and ensuring that DRRM education is practical and inclusive, ultimately developing a safer and more resilient school community.

Learners

For learners, implementing DRRM strategies directly benefits them by creating a safer learning environment and encouraging their active participation in disaster preparedness. Involving students in planning and preparedness activities enhances their knowledge and empowers them to take an active role in disaster risk reduction management. By focusing on learner-centered preparedness, schools can foster critical thinking and problem-solving skills among students, equipping them with the tools they need to respond to emergencies effectively.

Stakeholders For other stakeholders, the study underscores the importance of collaboration in supporting the implementation of

DRRM initiatives. The findings illustrate how a community-driven approach can enhance disaster preparedness in schools. By advocating for policies that ensure equitable access to resources, promote teacher training, and support the development of disaster risk reduction management tools, stakeholders can create a more resilient educational system that benefits all students, especially in disaster-prone areas.

Future Researchers For future researchers, this study lays a foundation for further investigation into the effectiveness of context-based and learner-centered DRRM strategies. Future studies could explore how these approaches influence student engagement, preparedness, and long-term resilience in various educational settings. Research could also examine the broader impacts of community collaboration and the integration of disaster risk reduction management into other areas of education, offering a deeper understanding of how to build resilience across different subjects and age groups.

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