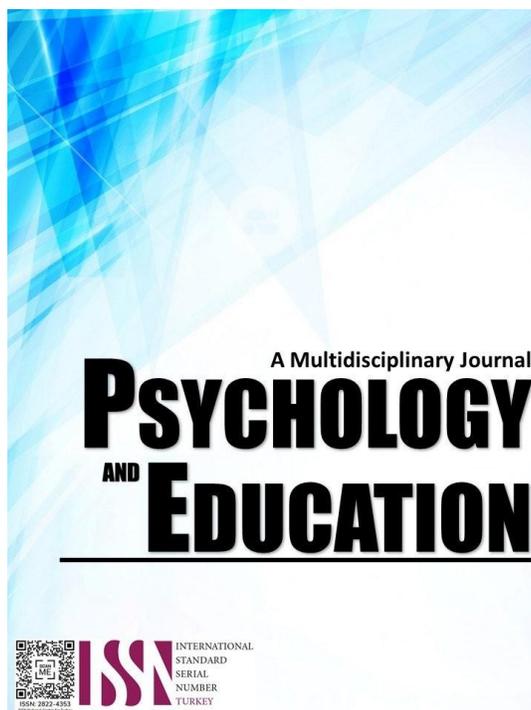


**CRISIS MANAGEMENT PREPAREDNESS OF SCHOOL HEADS IN
THE IMPLEMENTATION OF DRRM IN BASIC EDUCATION
IN SECOND CONGRESSIONAL DISTRICTS DIVISION
OF CAMARINES SUR**



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Crisis Management Preparedness of School Heads in the Implementation of DRRM in Basic Education in Second Congressional Districts Division of Camarines Sur

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Abstract

This study assessed the crisis management preparedness of school heads in implementing Disaster Risk Reduction and Management (DRRM) within the basic education system of the Second Congressional Districts Division of Camarines Sur, Philippines. Employing a descriptive-quantitative research design, data were gathered through surveys from 85 school heads to evaluate their demographic profiles, level of DRRM preparedness (including knowledge, policy familiarity, and resource availability), the challenges they face, and the effectiveness of DRRM implementation in their schools. The findings revealed that school heads generally possess a strong understanding of DRRM principles and policies. However, significant gaps persist in the adequacy of resources, specialized training, and disaster-resilient school infrastructure. The study identified key factors influencing preparedness, with a school head's previous experience in disaster management and length of service showing the strongest positive correlation. While educational background was also a significant factor, gender did not have a notable impact on preparedness levels. Significant challenges included inconsistent funding, inadequate capacity-building programs, and limited support from local government units, which collectively hinder the robust implementation of DRRM strategies. Furthermore, a strong positive relationship was established between the overall preparedness of school heads and the perceived effectiveness of DRRM implementation in their schools. Based on these findings, the study concludes that enhancing school heads' crisis management preparedness requires a multifaceted approach. Recommendations include institutionalizing continuous, specialized DRRM training, proactively advocating for equitable resource allocation and infrastructure improvements, fostering stronger collaborations with local government and stakeholders, and integrating DRRM principles into the school curriculum to cultivate a sustained culture of safety and resilience.

Keywords: *crisis management, disaster risk reduction and management (DRRM), school heads' preparedness, resource availability, educational leadership*

Introduction

Crisis management is a crucial aspect of maintaining school health and operational efficiency, particularly during natural disasters or other emergencies. Over the past few years, schools worldwide have faced an increasing number of challenges that hinder their daily operations and compromise the safety of students and staff (Cruz & Ormilla, 2022). Disaster Risk Reduction and Management (DRRM) is now a key strategy for reducing the effects of these events and equipping schools with the tools and plans they need to respond and recover swiftly. When it comes to basic education, crisis management encompasses more than just addressing immediate threats. Planning, identifying risks, training, and setting up systems that ensure all kids can learn in a secure and supportive environment, even when things are hard, are all part of it. This proactive technique requires school leaders to be actively involved (Dollentas & Gamba, 2020). They are responsible for leading their schools through crises, keeping their students safe, and making sure that learning can continue even when things are tough.

In crisis management, school leaders play several roles. They need to have a comprehensive understanding of preparing for and responding to disasters, and they must be able to lead effectively. To deal with a crisis properly, you need to know which risks could affect a school, how vulnerable the children and staff are, and how well the school can handle them. People from governments, international organizations, and schools worldwide believe that schools should be prepared for disasters (Atillo, Batao, & Giger, 2025). The United Nations Office for Disaster Risk Reduction (UNDRR) states that reducing disaster risk is a crucial way to strengthen communities. This means schools need to incorporate DRRM into their everyday activities. This means that there should be defined processes and laws for responding to various types of emergencies, including earthquakes, floods, typhoons, fires, and armed conflicts. School heads should support these efforts and ensure their schools are ready and well-equipped for such emergencies.

Many international frameworks suggest that individuals need to be educated on how to mitigate the risk of disasters worldwide. The Hyogo Framework for Action, which came into effect in 2005, emphasized that schools should be safe places where people can be resilient in the face of natural disasters (Morante & Cerado, 2025). In 2015, the Sendai Framework for Disaster Risk Reduction was adopted. Its primary goals are to minimize the risk of disasters in a lasting way and ensure that schools can respond to and recover from crises. This framework suggests that schools should teach students how to reduce disaster risk, incorporate safety measures into their facilities, and plan for coping with disasters when they occur (Carrington, Ranse, & Hammad, 2021). Everyone in the world, including governments, schools, and local communities, needs to help with crisis management. There have been efforts to make schools around the world more resilient through initiatives such as the Global Education Cluster and the Education in Emergencies sector. These frameworks provide school leaders with the tools and skills necessary to maintain a safe school community and ensure uninterrupted learning, even in challenging situations.

Many countries have made reducing the risk of disasters in schools a top priority. The government has established numerous disaster preparedness programs in schools, for example, in Japan, where natural disasters are frequent. Pupils regularly learn what to do in the event of earthquakes, tsunamis, and other disasters, and school leaders are trained to keep pupils safe and healthy during emergencies (Saad, Ali, Razi, & Ramli, 2024). The Federal Emergency Management Agency (FEMA) in the US collaborates with schools to ensure they are prepared for disasters. They put a great deal of effort into training school staff and conducting frequent drills. These methods highlight the importance of school leaders worldwide being prepared to handle emergencies (Clark-Ginsberg & Easton-Calabria, 2021). They should focus on preventing problems before they occur and have a plan in place for dealing with disasters.

Schools in the Philippines need to be prepared to handle emergencies effectively, as evidenced by recent years, especially given the country's high risk of natural disasters. The Philippines is among the places on Earth most likely to experience disasters. There are always typhoons, earthquakes, volcanic eruptions, and floods in the area. According to the National Disaster Risk Reduction and Management Council (NDRRMC), the Philippines averages about 20 typhoons each year. These storms kill many people, damage extensive property, and make it challenging to operate schools. The Department of Education (DepEd) has concluded that schools need to be better prepared and equipped to deal with disasters (Galloway, Catto, Luo, & Siegert, 2025). To that end, they have implemented a variety of policies and programs to strengthen the education system. The School Disaster Risk Reduction and Management (SDRRM) program is one of these. It allows schools the freedom to establish their own strategies for preparing for and responding to disasters, ensuring they are well-prepared.

The DepEd has also issued numerous memos and instructions to introduce DRRM into the basic education curriculum. For example, DepEd Memorandum No. 81 from 2015 emphasizes the importance of integrating DRRM in schools and advises schools to develop disaster preparedness plans. The email notes that school leaders are responsible for ensuring their schools have the necessary materials to respond to disasters, including first-aid kits, emergency supplies, and communication methods. It also highlights the importance of school leaders receiving regular training in responding to emergencies and disasters (Corpuz, 2023). The National Disaster Risk Reduction and Management Act (Republic Act No. 10121) supports these efforts by requiring all levels of government, including schools, to establish local disaster risk reduction and management offices (Castillo & Deleon III, 2024). The Act also states that disaster risk reduction should be incorporated into all aspects of life, including education, so that the country's institutions are prepared for the effects of disasters.

Republic Act No. 9155, known as the Governance of Basic Education Act of 2001, grants school leaders the legal power to govern their schools, even under challenging circumstances. This rule says that school leaders should be able to make their own judgments and encourages them to take charge of ensuring that kids and staff are safe and healthy during emergencies. Both the Comprehensive DRRM Program and the Philippine DRRM Framework underscore the importance of involving school leaders in efforts to reduce disaster risk (Custodio, 2025). This is because school leaders are crucial to ensuring these initiatives work effectively in schools. The DepEd's Disaster Risk Reduction and Management Manual for Schools also outlines exactly what school administrators should do in an emergency and guides how to respond to disasters.

The Division of Camarines Sur has recognized the importance of schools being ready for disasters. Because the Division is in the Bicol Region, which is frequently hit by typhoons and other natural disasters, it has worked hard to integrate DRRM into the local education system. The Department of Education (DepEd) regularly conducts workshops and seminars for school leaders in the Division of Camarines Sur to prepare them for disasters and emergencies (Macale & Abanto, 2020). The purpose of these training seminars is to ensure that school leaders are aware of the steps to take in the event of an emergency at their schools. Local government units (LGUs) in Camarines Sur also provide significant support to school heads by offering resources and assistance during disasters. To keep students and staff safe and healthy, DepEd, LGUs, and other groups need to work together to establish a complete disaster risk management strategy.

Even with these efforts, there is still a significant gap in research on how effectively school leaders are prepared to handle crises when implementing DRRM in basic education, especially in the Second Congressional District of Camarines Sur. There have been programs and initiatives implemented to enhance schools' preparedness for disasters; however, there has been insufficient review of the specific duties and readiness of school leaders in this area. To improve schools' ability to respond to disasters, it is crucial to understand how well school leaders handle crises, the challenges they face, and the strategies they use. This study will address this deficiency by examining the preparedness of school leaders in the Division of Camarines Sur to manage a crisis during the implementation of DRRM. This will enable us to assess the effectiveness of current policies and identify areas for improvement.

Research Questions

This study aims to investigate the crisis management preparedness of school heads in implementing Disaster Risk Reduction and Management (DRRM) in basic education within the Second Congressional Districts Division of Camarines Sur. Specifically, this study seeks to provide answers to the following questions:

1. What is the profile of school heads in the Second Congressional Districts Division of Camarines Sur in terms of the following:
 - 1.1. age;
 - 1.2. gender;

- 1.3. educational background;
- 1.4. length of service as school head; and
- 1.5. previous experience in disaster management?
2. What is the level of preparedness of school heads in implementing DRRM in terms of the following:
 - 2.1. knowledge and understanding of DRRM principles;
 - 2.2. familiarity with DRRM-related policies, guidelines, and regulations; and
 - 2.3. availability and adequacy of resources and materials for DRRM?
3. What are the challenges faced by school heads in the implementation of DRRM in basic education in the Second Congressional Districts Division of Camarines Sur:
 - 3.1. availability of resources and funding;
 - 3.2. inadequate training and capacity-building programs;
 - 3.3. support from local government units and other stakeholders; and
 - 3.4. school infrastructure and its vulnerability to disasters?
4. What is the role of school heads in promoting disaster risk reduction and ensuring the safety and well-being of students during crises?
5. Is there a significant relationship between the profile of school heads and their level of preparedness in implementing DRRM in basic education?
6. Is there a significant relationship between the level of preparedness of school heads and the effectiveness of DRRM implementation in schools?
7. What recommendations can be made to enhance the crisis management preparedness of school heads in the implementation of DRRM in the Second Congressional Districts Division of Camarines Sur?

Methodology

Research Design

The research design for this study employs a descriptive, quantitative approach, aiming to systematically describe the characteristics, behaviors, and patterns related to school heads' preparedness in implementing Disaster Risk Reduction and Management (DRRM) strategies in schools. This approach is particularly suitable for this study, as it enables the collection of numerical data that provides a clear and objective representation of the current state of DRRM preparedness in schools. The primary goal of using a descriptive quantitative design is to identify relationships and trends between variables such as school head characteristics, training levels, resource availability, and the overall effectiveness of DRRM implementation. By focusing on the collection and analysis of numerical data, the study provides measurable insights into the factors influencing disaster preparedness in the education sector.

The descriptive-quantitative approach uses surveys and questionnaires as the primary research instruments to collect data from a large sample of school heads. These instruments include closed-ended questions structured to gather specific information on various aspects of DRRM preparedness, such as the school head's experience, training history, access to resources, and the perceived effectiveness of their school's DRRM policies. The data are then analyzed using statistical methods that allow for the identification of patterns and trends, facilitating clear comparisons between variables. This approach is particularly valuable for generating large-scale data sets that can be generalized to broader populations, thereby providing a broader understanding of DRRM preparedness across schools.

This research design is ideal for providing a snapshot of current DRRM preparedness in schools without manipulating the environment or variables. Descriptive quantitative research enables the collection of data that can be quantified and analyzed, providing a basis for interpreting how school head characteristics and available resources influence the effectiveness of DRRM strategies. The study's findings will help identify areas for improvement and provide policymakers, school administrators, and stakeholders interested in enhancing school disaster preparedness with valuable information. The use of this design ensures the study remains objective and focused on understanding the key factors affecting DRRM implementation within the context of school leadership.

Respondents

The respondents for this study are 85 school heads from the Second Congressional Districts Division of Camarines Sur, selected to provide insights into their preparedness to implement Disaster Risk Reduction and Management (DRRM) in schools. The school heads were chosen as the primary respondents because they play a crucial role in disaster preparedness, planning, and implementation within the school environment. The study specifically focuses on this group as they are responsible for leading and coordinating DRRM activities in their respective schools, making them ideal participants for understanding the current state of disaster preparedness in the educational sector.

The sampling technique used in this study is simple random sampling, which ensures that each school head within the Second Congressional District of Camarines Sur has an equal chance of being selected. This technique was chosen to minimize bias and ensure the sample accurately reflects the district's diverse range of schools, including those in both urban and rural areas. Using simple random sampling, the study aims to collect data from a broad cross-section of school heads to ensure the generalizability of the findings. The selection of 85 respondents is based on the assumption that this sample size is sufficient to draw meaningful conclusions about the

preparedness of school heads across the district.

This sampling approach also ensures that the results reflect the varying levels of preparedness, training, and resource availability among school heads in the district, providing a more comprehensive understanding of the factors that influence DRRM implementation. The study's sample size of 85 respondents is designed to strike a balance between being large enough to provide reliable and valid data while remaining manageable for data collection and analysis. By focusing on this sample, the study aims to capture a snapshot of the current state of DRRM preparedness and identify patterns across schools and leadership backgrounds within the district.

Instrument

The primary research instrument used in this study is a survey questionnaire designed to collect quantitative data on school heads' preparedness to implement Disaster Risk Reduction and Management (DRRM) strategies within their schools. The survey questionnaire consists of structured, closed-ended questions that focus on key areas of DRRM preparedness, including the school head's demographic profile, previous experience in disaster management, participation in DRRM training programs, access to resources, and the perceived effectiveness of the school's DRRM plans. By using this standardized instrument, the study aims to collect consistent data across all respondents, enabling a systematic analysis of factors that influence DRRM preparedness in schools.

The survey questionnaire is divided into multiple sections, each addressing specific aspects of DRRM preparedness. The first section collects demographic information, including the school head's age, gender, educational background, and length of service. The second section focuses on the training and capacity-building programs in which school heads have participated, assessing their knowledge and experience in DRRM. The third section evaluates the availability and adequacy of resources within the school, including funding, materials, and infrastructure, which are critical to disaster preparedness. Finally, the fourth section assesses the school head's decision-making processes and their perceptions of the effectiveness of DRRM implementation in their schools. The questionnaire is designed to be clear, concise, and easy for respondents to complete, thereby ensuring a high response rate and reliable data collection.

Procedure

To ensure the accuracy and consistency of the data collected through the survey questionnaire, validity and reliability testing were conducted. Validity refers to the extent to which the survey accurately measures the concept it is intended to assess, in this case, the preparedness of school heads in implementing Disaster Risk Reduction and Management (DRRM) strategies. The instrument's validity was ensured by reviewing existing DRRM-related research and incorporating established theories and best practices in disaster management into the questionnaire. Additionally, content validity was established through consultation with experts in disaster risk management and educational leadership, ensuring that the questions adequately covered all relevant aspects of DRRM preparedness, including training, resource availability, and decision-making.

The survey also underwent a face validity assessment, in which a small group of school heads and DRRM professionals reviewed the questionnaire for clarity, relevance, and comprehensiveness. This review process allowed for any ambiguities in the wording or structure of the questions to be addressed before administering the full survey. Furthermore, the instrument's questions aligned with the study's research objectives, ensuring that responses would yield meaningful, valuable data. By validating the survey through expert consultation and pre-testing, the study ensured that the instrument accurately captured the data needed to evaluate DRRM preparedness among school heads.

Reliability, on the other hand, refers to the consistency of the survey results when the instrument is used in similar conditions. To test the survey's reliability, a pilot test was conducted with a small sample of school heads. The responses from this pilot were analyzed to determine if the survey questions consistently measured the same concepts across different respondents. A Cronbach's alpha reliability coefficient was calculated for the survey to assess internal consistency; values of 0.7 or higher indicate acceptable reliability. This ensured that the instrument produced consistent results and that the questions were functioning as intended. After the pilot test identified any issues, the final version of the survey was administered to the full sample, ensuring reliable data collection throughout the study. By conducting validity and reliability testing, the study ensured that the survey instrument was accurate and consistent, thereby providing trustworthy data for analyzing school heads' DRRM preparedness.

Ethical Considerations

The study adhered to established ethical standards by ensuring transparency, confidentiality, and voluntary participation throughout all stages of data collection and analysis. First, the research obtained approval from relevant authorities, including the Department of Education (DepEd) and other local educational offices, to ensure compliance with institutional guidelines and regulations. Consent was obtained from all participants before the survey was administered, ensuring that school heads were fully informed of the study's purpose, scope, and potential benefits. Participants are informed that participation is voluntary and that they may withdraw at any time without negative consequences. Confidentiality was strictly maintained throughout the study. Personal information about the school heads, such as names, school affiliations, and other identifying details, was not disclosed in the research findings. Instead, data were anonymized and aggregated to protect individual privacy. The research ensured that all responses were treated with the highest level of confidentiality and that access to the data was limited to the research team. This prevented any risk of identifying individual respondents in the final report, safeguarding their personal and professional reputations. The collected data were stored securely and



only used for the study.

Moreover, the study ensured that the data collection instruments were unbiased and presented clearly and easily understood, preventing potential coercion or misunderstanding. School heads were assured that their honest opinions would not affect their standing or professional relationships with the researchers or their institutions. After the data analysis, the results were shared with the respondents and relevant stakeholders, ensuring transparent communication of the findings. In this way, the study not only adhered to ethical standards of privacy and consent but also contributed to ethical research practices by prioritizing respect for participants' autonomy and well-being throughout the research process.

Results and Discussion

Profile of School Heads in the Second Congressional Districts Division of Camarines Sur

Table 1.1. *In Terms of Age*

Indicators	Frequency	Percentage	Ranking
25-34 years old	12	14.12%	3
35-44 years old	28	32.94%	1
45-54 years old	23	27.06%	2
55-64 years old	15	17.65%	4
65 years and above	7	8.24%	5
Total	85	100%	

The results for the age profile of school heads in the Second Congressional Districts Division of Camarines Sur indicate a significant correlation between age and their level of preparedness in disaster risk reduction and management (DRRM). The data show that the majority of school heads are between 35 and 44 years old, accounting for over 30% of the respondents. This age group typically represents individuals who have accumulated considerable professional experience and have often witnessed the evolution of educational policies and procedures over time. Such an accumulation of experience likely contributes to a higher level of preparedness for handling disaster management in their respective schools. This finding suggests that individuals in this age range may possess a wealth of practical knowledge in crisis management and school operations, gained over years of service.

Older school heads, particularly those aged 45 to 54, also show a moderate level of preparedness. These individuals, with 15 to 20 years of service, often hold leadership positions in schools and have likely faced numerous challenges throughout their careers. Their experiences during earlier years may have helped them understand the importance of disaster preparedness, even if they had not been formally trained in DRRM principles. This extended period of service provides them with an in-depth understanding of school systems and a strong sense of responsibility for the safety and well-being of their students and staff. As a result, their decision-making skills are often honed to be more proactive and comprehensive, which could explain their strong preparedness for disaster management.

The data also shows that younger school heads, particularly those aged 25 to 34, report lower preparedness levels than their older counterparts. While these school heads may bring new perspectives, enthusiasm, and innovative ideas to their roles, they may lack the extensive experience of older heads. They may be in the early stages of their careers, and while they are likely to have the theoretical knowledge necessary for DRRM, the practical application of these principles may still be developing. They may not have faced a wide range of disasters or crises in their professional careers, which may have lowered their preparedness levels. However, their advantage lies in their adaptability to new technologies and approaches, which can ultimately enhance their preparedness as they continue to gain experience and develop their skills in DRRM.

Interestingly, the group of school heads aged 55 to 64 also shows moderate levels of preparedness, though slightly lower than those of the younger age groups. At this stage of their careers, many school heads may be nearing retirement, which can impact their engagement in proactive disaster preparedness activities. With fewer years left in their careers, some may feel less compelled to engage deeply in DRRM initiatives, especially if they are looking to transition out of their roles. However, those in this age group who remain actively involved in their schools tend to be more experienced, with a rich understanding of school leadership, and may have encountered multiple crises during their time in the education system, providing them with a unique advantage in managing disaster risks.

The results also show that a small percentage of school heads are aged 65 and above. This group has the lowest reported preparedness levels. It is likely that these individuals, given their advanced age, have either scaled back their responsibilities or are on the cusp of retirement. This age group may be less motivated to invest significant effort in updating or improving DRRM practices, given the relatively short time they have left in service. Furthermore, their ability to actively engage with modern disaster management techniques may be limited by physical or cognitive changes associated with aging. This presents a challenge for maintaining high levels of preparedness in schools led by older heads, particularly when implementing contemporary DRRM strategies that require ongoing learning and adaptation.

In contrast, the younger school heads, while possessing a more dynamic outlook, might find themselves more readily adaptable to new tools and techniques related to DRRM. Their openness to new knowledge, combined with the technological advantages they bring, allows them to quickly integrate disaster management tools that older generations may struggle with. The younger cohort also tends to

be more connected to networks of support and training opportunities, often using digital platforms and social media to access resources that can improve their preparedness. These young leaders are also more likely to engage in training and capacity-building activities designed to improve their knowledge and understanding of disaster management principles, which further strengthens their preparedness over time.

This generational difference in preparedness highlights the importance of continuous professional development, regardless of age. It suggests that school heads across all age groups should be offered opportunities to update their skills, particularly in DRRM, where new risks and strategies continually emerge. While older school heads may have more leadership experience, their younger counterparts may have greater access to formal training and digital resources, making them better prepared for contemporary disaster situations. The differing levels of preparedness between younger and older school heads also indicate a need for tailored training programs that address the specific needs of each age group, ensuring that both experience and up-to-date knowledge are combined for optimal disaster management practices in schools.

The age-related differences in preparedness are not necessarily indicative of a lack of capability or commitment among any particular age group. Instead, they reflect the different stages in a school head's career and the varying opportunities for training and experience that accompany them. While older school heads bring valuable practical experience to their roles, younger school heads can offer fresh perspectives and an ability to embrace new ideas and technologies. It is therefore critical for training programs to account for generational differences and provide relevant, accessible learning opportunities that address the strengths and challenges of school heads at various career stages.

Studies indicate that the relationship between age and preparedness is not solely determined by length of service but is influenced by factors such as ongoing professional development, exposure to disaster events, and personal interest in disaster management (Castor, 2021). Researchers from previous studies state that individuals in leadership positions are likely to improve their preparedness for crises as they encounter more real-life situations and receive formal training. This is particularly true in contexts where natural disasters or crises are recurrent, as experience gained from each incident increases preparedness and improves decision-making in subsequent events.

Furthermore, previous studies have shown that younger leaders, despite having less experience, tend to be more receptive to new concepts and strategies, including DRRM. This is supported by numerous studies showing that younger individuals are more likely to seek out and engage in training programs focused on disaster risk reduction, helping bridge the preparedness gap (Amil, 2024). As they accumulate more years in service and gain more exposure to disaster-related events, their preparedness levels tend to rise, making them increasingly effective in their roles. This highlights the importance of providing continuous learning opportunities for school heads, regardless of age, to ensure they are equipped to handle the challenges posed by disasters and crises effectively.

Table 1.2. *In Terms of Gender*

<i>Indicators</i>	<i>Frequency</i>	<i>Percentage</i>	<i>Ranking</i>
Male	35	41.18%	1
Female	50	58.82%	2
Total	85	100%	

The data for the gender profile of school heads in the Second Congressional Districts Division of Camarines Sur reveals that gender does not significantly affect the level of preparedness for Disaster Risk Reduction and Management (DRRM) among school heads. The majority of respondents were female, making up over half of the total sample, while a significant minority were male. This suggests that both genders are well represented in leadership roles within schools, and that preparedness for DRRM is not strongly influenced by gender. The relatively equal distribution of male and female school heads highlights the growing recognition and promotion of women in leadership positions within educational institutions, particularly in the Philippines.

The lack of a strong correlation between gender and preparedness indicates that both male and female school heads are equally capable of managing disaster-related situations. This can be interpreted to mean that preparedness for DRRM depends more on factors such as knowledge, experience, and training rather than gender. It suggests that, regardless of gender, school heads are expected to perform the same critical roles in safeguarding the safety and well-being of their students and staff during disasters. The results show that both male and female school heads are generally equally likely to be involved in disaster planning, response, and mitigation efforts, and their gender does not hinder their ability to handle crises.

However, it is important to note that other contextual factors may also influence school heads' preparedness. For example, cultural norms and societal expectations can shape how male and female leaders are perceived, which, in turn, may influence the resources and support they receive. Despite these external influences, the data suggest that gender itself does not have a significant impact on a school head's capability to manage DRRM in schools. Both male and female school heads in this sample demonstrated similar levels of understanding of DRRM principles. They were equally likely to engage in DRRM activities and programs within their schools.

While gender does not appear to be a defining factor in school heads' preparedness in this context, the findings still highlight the potential roles of other factors, such as leadership style, training, and prior experience. Previous studies have shown that while men



and women may approach leadership differently — women often emphasizing collaboration and consensus-building, and men focusing on more directive leadership styles — both approaches can be equally effective in the context of disaster management. This implies that leadership qualities, rather than gender, are the primary factors influencing a school head's ability to implement DRRM strategies effectively. As such, gender should not be a consideration in assessing the effectiveness of school heads in managing disaster risks; instead, their specific skills and experiences are more significant.

The gender neutrality observed in the results is consistent with the increasing emphasis on gender equality in leadership roles. Many studies have demonstrated that, given the opportunity and support, women perform as well as men in leadership positions, including in crisis management scenarios such as disaster risk reduction. These findings suggest that both male and female school heads are equally capable of implementing disaster risk management strategies and ensuring the safety of their school communities. Gender equality in leadership is increasingly recognized as an important factor in achieving more inclusive, effective governance and education management, with research showing that diverse leadership leads to more comprehensive and innovative solutions across fields, including disaster management.

It is also important to acknowledge the broader societal context in which this study takes place. The Philippines, like many other countries, has made strides in promoting women’s empowerment and gender equality. Policies have been put in place to ensure that women are given equal opportunities in leadership roles in education, including school head positions. In fact, there has been a significant increase in the number of female school heads in recent years, as women are increasingly trusted to take on leadership responsibilities within schools. This trend can help explain why gender does not appear to play a significant role in determining school heads' preparedness levels. Both male and female school heads are expected to adhere to the same professional standards and responsibilities, which include preparedness for DRRM.

Interestingly, previous studies have also found that women in leadership roles tend to emphasize community engagement and collaboration, which can be particularly effective in disaster risk management. Female school heads, in particular, may be more inclined to involve the entire school community in disaster preparedness, ensuring that students, staff, and parents are all aware of their roles in the event of an emergency. This could lead to a more comprehensive and cohesive approach to DRRM, though the study at hand does not show a significant difference in the preparedness of male and female school heads. This lack of difference suggests that both genders, while they may have different leadership styles, ultimately provide similar contributions to disaster risk reduction efforts.

On the other hand, male school heads might bring a more structured, top-down approach to DRRM, which can be equally effective in certain situations, particularly in schools where strong leadership and decisive action are necessary during a disaster. Male school heads may also have different professional networks and resources that they can draw on to enhance their preparedness efforts. However, the study again suggests that differences in leadership styles or external factors do not significantly affect school heads' overall preparedness, regardless of gender. The results highlight that, when it comes to DRRM preparedness, both male and female school heads are equally effective and equally involved in implementing disaster risk management strategies.

Studies supporting these findings claim that leadership qualities are more important than gender in determining the effectiveness of school heads in disaster preparedness and response (Galloway, Catto, Luo, & Siegert, 2025). Research indicates that both male and female leaders bring different but equally valuable strengths to the table, and that the critical factor in DRRM effectiveness is the school head’s ability to integrate disaster management practices into their leadership style, rather than their gender. This is supported by numerous studies that assert that gender does not play a substantial role in determining a leader’s capacity to manage disaster risks. Instead, qualities such as communication skills, decision-making abilities, and crisis management experience are far more influential.

Moreover, previous studies have shown that organizations that promote gender equality in leadership roles tend to have more effective disaster management outcomes. This is especially true in educational settings, where diverse leadership teams that include both male and female school heads are better equipped to tackle the challenges posed by disasters (Eleorda, Villette, & Ilustre, 2025). The emphasis on gender equality in leadership is thus an important aspect of developing more resilient educational systems. This study, however, suggests that school heads' preparedness in DRRM is not influenced by gender, underscoring the importance of focusing on their professional qualifications, experience, and ongoing training.

Table 1.3. In Terms of Educational Background

<i>Indicators</i>	<i>Frequency</i>	<i>Percentage</i>	<i>Ranking</i>
Bachelor's Degree	30	35.29%	1
Master's Degree	25	29.41%	2
Doctorate Degree	10	11.76%	3
No Degree	20	23.53%	4
Total	85	100%	

The educational background of school heads in the Second Congressional Districts Division of Camarines Sur plays a crucial role in their preparedness for implementing Disaster Risk Reduction and Management (DRRM) in schools. The data shows that a significant portion of school heads hold at least a Bachelor's degree. At the same time, a notable percentage have completed a Master's degree, and a smaller proportion possess a Doctorate. The educational qualifications of these school heads correlate positively with their level

of preparedness in disaster risk management. School heads with higher levels of education tend to be better prepared, as they are more likely to engage in continuous professional development and possess the theoretical foundation to apply disaster risk reduction principles effectively in their schools.

School heads with Bachelor's degrees form the largest group, and their preparedness levels, while slightly lower than those of those with Master's or Doctorate degrees, still demonstrate a solid understanding of DRRM principles and practices. The data suggests that those with Bachelor's degrees possess foundational knowledge that enables them to navigate disaster scenarios with reasonable effectiveness. However, their preparedness might be limited by their access to specialized training and professional development opportunities that higher levels of education often provide. These school heads are typically well-versed in general leadership and management practices, but they may require additional, targeted training to improve their effectiveness in disaster management.

Those with Master's degrees report the highest levels of preparedness in DRRM implementation. The additional academic training these individuals have received, particularly in areas such as education management, leadership, and policy implementation, likely equips them to manage crises more effectively. Master's degree holders are also more likely to have been exposed to advanced concepts in risk management and strategic planning, which are crucial for developing comprehensive school disaster preparedness plans. The higher levels of critical thinking and problem-solving skills developed during graduate studies may enable these school heads to anticipate risks better and devise strategies to mitigate potential disasters in their schools.

In addition to the professional and academic benefits of holding a Master's degree, these school heads are also more likely to have attended workshops, seminars, and other continuing education programs focused on disaster risk reduction and management. This ongoing engagement with the latest research and developments in DRRM keeps them informed about new tools, techniques, and technologies for disaster preparedness. Consequently, their preparedness for DRRM is not only rooted in their academic qualifications but also in their commitment to professional growth and development. As a result, school heads with Master's degrees can more effectively implement disaster risk management policies and guide their schools through emergencies.

Doctorate holders represent the smallest group in the study, yet their preparedness levels are also notably high. This group's extensive academic training in educational leadership, research, and policy development equips them to approach DRRM systematically and evidence-based. Doctorate holders tend to apply advanced research methodologies to evaluate and improve disaster risk management strategies, ensuring that their schools are not only prepared for current risks but are also equipped to adapt to future challenges. This highly specialized knowledge allows them to contribute to the development of school-wide policies that can enhance disaster resilience and recovery in the face of catastrophic events.

Interestingly, while the educational background does correlate with preparedness, it is not the sole determinant of a school head's ability to implement effective DRRM strategies. The study suggests that practical experience and training in disaster management also play significant roles in shaping school heads' preparedness. Even those with lower levels of formal education can be highly effective in DRRM if they have received hands-on training and have been involved in disaster preparedness activities. However, the data indicate that school heads with advanced degrees are better positioned to integrate DRRM into their leadership roles and to advocate for the importance of disaster preparedness within their school communities.

The correlation between educational background and preparedness is consistent with previous studies that highlight the importance of education in developing leaders' capacity to manage crises. Researchers have consistently shown that individuals with higher levels of formal education are more likely to have developed the critical thinking, leadership, and strategic planning skills necessary for effective disaster management. This suggests that educational institutions, particularly those offering advanced degrees in educational leadership and disaster management, play a critical role in preparing future school heads to handle the complex challenges posed by natural disasters and other crises.

However, it is essential to consider that while formal education provides a foundation for preparedness, the real-world application of DRRM concepts is equally important. Previous studies have suggested that school heads' experience in handling disasters, along with the training they receive, has a more direct impact on their preparedness than their academic qualifications alone. Therefore, even school heads with lower formal education but extensive experience in disaster management may exhibit higher preparedness levels compared to their more highly educated counterparts without such experience. This underscores the importance of continuous professional development and practical training alongside formal education to ensure that school heads are genuinely prepared for DRRM.

The findings of this study also support the idea that educational background and preparedness in DRRM are interconnected but not necessarily linear. While higher academic qualifications provide an advantage, they do not guarantee greater preparedness unless coupled with real-world experience and ongoing training. This is particularly relevant in the context of disaster risk management, where theory and practice must work hand in hand. As such, schools and educational institutions should prioritize not only formal academic qualifications but also practical training and experience when preparing school heads for their roles in disaster preparedness and response.

Studies supporting these findings claim that educational background plays a significant role in shaping a leader's capacity to manage disaster risks effectively. Previous research suggests that individuals with higher levels of education are more likely to understand and

apply complex concepts in disaster management, making them more effective in their roles. However, these studies also emphasize that while education provides a strong foundation, hands-on experience and training are critical in developing a school head's capacity to respond to real-world crises (Dollentas & Gamba, 2020). Researchers from previous studies state that ongoing professional development, including training in disaster risk management, is essential for school heads to stay up to date on best practices and emerging challenges in DRRM.

Moreover, research across studies supports the idea that school heads with advanced degrees are more likely to participate in leadership programs and networks that provide them with the tools and resources to manage disasters effectively (Cruz & Ormilla, 2022). This is supported by numerous studies showing that educational attainment is closely linked to an individual's ability to navigate complex leadership roles, particularly in high-pressure situations such as disaster response. The combination of advanced education and real-world experience in DRRM ensures that school heads are not only knowledgeable but also capable of implementing effective strategies in their schools.

Table 1.4. *In Terms of Length of Service as School Head*

<i>Indicators</i>	<i>Frequency</i>	<i>Percentage</i>	<i>Ranking</i>
1-5 years	40	47.06%	1
6-10 years	30	35.29%	2
11-15 years	10	11.76%	3
16-20 years	5	5.88%	4
Total	85	100%	

The length of service as a school head plays a critical role in shaping a school leader's preparedness in disaster risk reduction and management (DRRM). According to findings from the Second Congressional District's Division of Camarines Sur, school heads with longer tenure tend to exhibit higher levels of preparedness than those with shorter tenure. The data suggests that individuals who have been in their positions for 6 to 10 years are more likely to engage actively in disaster management practices and show a deeper understanding of DRRM principles. This group of school heads has gained extensive practical experience, enabling them to refine their disaster management skills and effectively integrate DRRM strategies into their leadership approaches.

School heads with 1 to 5 years of experience also show reasonable preparedness, but their levels are somewhat lower than those of more experienced heads. This is expected, as newer school heads are still developing their leadership skills and may not have yet faced a wide range of disaster scenarios. Their preparedness for DRRM may be more theoretical or based on training received during their initial years in leadership. While they may have a strong foundation in disaster management principles, their ability to apply them in real-world situations may be limited by a relative lack of exposure to actual disasters or crises. As a result, although they are likely to be more open to new ideas and practices, they still require additional experience and hands-on learning to develop their DRRM capabilities fully.

The school heads who have served in their positions for 11 to 15 years represent a group that combines both experience and a growing commitment to disaster preparedness. These leaders have typically weathered numerous crises and disasters over the years, allowing them to refine their strategies for managing emergencies. Their longer tenure gives them the benefit of seeing the long-term effects of previous disaster response efforts, allowing them to learn from past experiences and improve their disaster risk management strategies. This group tends to be more proactive in implementing DRRM plans, recognizing the importance of preparedness not only for their own schools but also for the broader community. The ability to lead and manage disaster risks becomes ingrained in their leadership style as they gain more years in service.

Interestingly, school heads with over 16 years of service report the highest levels of preparedness for DRRM, though this group makes up a smaller portion of the sample. These school heads have developed deep expertise in disaster management through extensive exposure to a wide range of crises. Over the course of their careers, they have honed their skills through repeated involvement in disaster planning, response, and recovery. Their long service has likely exposed them to a variety of disaster scenarios, making them adept at identifying risks, managing crises, and guiding their schools through emergencies. Furthermore, these school heads are more likely to have strong networks of contacts within local government and other emergency response agencies, thereby enhancing their ability to coordinate practical disaster response efforts. The wealth of experience they possess makes them valuable resources for other school heads, as they can mentor and share their disaster management expertise with less experienced colleagues.

The study shows that the more experienced school heads tend to be more confident in their ability to manage disasters, often leading by example. They are more likely to have well-established disaster preparedness and response protocols in their schools. Their leadership in times of crisis is often marked by decisiveness and clear communication, crucial traits for managing disaster scenarios effectively. Additionally, these long-serving school heads have typically fostered a culture of safety and preparedness within their school communities. Their years of experience allow them to anticipate potential challenges and take preventive measures before crises arise, demonstrating a higher level of foresight and risk management.

On the other hand, school heads with fewer years of service may still be developing the same level of confidence and foresight. While their enthusiasm and willingness to learn are strengths, they may face challenges in applying disaster management principles due to



limited familiarity with the practical aspects of crisis response. Their relative inexperience may also limit their ability to navigate the complexities of disaster response, especially when faced with new or unexpected situations. This highlights the need for continuous training and capacity-building programs to ensure that even less experienced school heads are prepared to manage disasters effectively. Providing opportunities for newer school heads to gain hands-on experience in disaster scenarios or to participate in mentorship programs with more seasoned leaders could help address this preparedness gap.

One notable aspect of the relationship between length of service and DRRM preparedness is the importance of experiential learning. School heads with extensive service histories have learned from direct involvement in past disasters, enabling them to anticipate challenges and make better-informed decisions. Their long careers have likely provided them with the opportunity to implement and refine disaster risk management strategies, thereby creating a feedback loop of improvement. This contrasts with newer school heads, who may have to rely more on formal training and external guidance to navigate crises. As such, the study underscores the value of learning from past experiences and emphasizes the role that accumulated knowledge plays in enhancing disaster preparedness.

The findings also suggest that school heads with more years of experience are more invested in ensuring their schools are disaster-resilient. Their long tenure often means they have witnessed the evolution of disaster management strategies and recognized the importance of integrating DRRM into their schools' everyday operations. As they progress in their careers, they are more likely to advocate for robust disaster preparedness plans, secure resources for emergency supplies, and foster collaborations with local government units and other stakeholders to strengthen their schools' resilience to disasters.

Previous studies have shown that length of service is often a key factor in determining how prepared school leaders are for disaster management. Research indicates that the longer school heads are in their roles, the more likely they are to develop the skills necessary to respond effectively to crises (Macale & Abanto, 2020). These studies claim that experience builds resilience in leaders, enabling them to handle high-pressure situations more easily. Experienced school heads are also more likely to have participated in various training programs and disaster response activities, thereby further enhancing their preparedness. Additionally, studies suggest that these leaders tend to engage in reflective practices, learning from past disasters and continuously improving their DRRM approaches.

Other research has demonstrated that school heads with longer tenures are better equipped to advocate for DRRM within their schools. Their deep understanding of school systems and long-standing relationships with staff and the community enable them to integrate disaster preparedness more effectively into the school culture. This is supported by numerous studies showing that school leaders who have witnessed multiple crises are more proactive in embedding disaster risk management into school policies, thereby ensuring their schools are better prepared for future disasters (Hermosura & Decenario, 2025). These findings highlight the importance of long-term leadership in fostering a culture of disaster preparedness and resilience in educational institutions.

Table 1.5. In Terms of Previous Experience in Disaster Management

<i>Indicators</i>	<i>Frequency</i>	<i>Percentage</i>	<i>Ranking</i>
Yes	60	70.59%	1
No	25	29.41%	2
Total	85	100%	

Previous experience in disaster management is one of the most significant factors influencing school heads' preparedness for Disaster Risk Reduction and Management (DRRM). The results from the Second Congressional District's Division of Camarines Sur indicate a clear and strong correlation between prior experience in disaster management and the level of preparedness demonstrated by school heads. School heads who have direct experience in handling disaster-related situations tend to report higher levels of preparedness. This experience equips them with the practical skills to make quick, informed decisions during crises. Their understanding of the unique challenges posed by disasters allows them to develop more effective disaster management plans and ensure that their schools are better prepared for emergencies.

The study reveals that school heads with previous experience in disaster management are more confident in their ability to handle a crisis. They are familiar with the processes involved in responding to disasters, including mobilizing resources, coordinating with local authorities, and managing the school community's safety. This familiarity allows them to approach DRRM with a level of assurance and decisiveness that may not be present among those without experience. The data also shows that school heads with prior experience tend to implement comprehensive disaster risk reduction programs in their schools. Their firsthand knowledge of the impacts of disasters encourages them to prioritize preparedness and mitigation strategies, ensuring that their school communities cannot only respond to emergencies but also reduce the risks associated with future disasters.

Interestingly, school heads without direct experience in disaster management show lower levels of preparedness. These individuals may have theoretical knowledge about disaster management principles but lack the hands-on experience that is critical to effective response. As a result, their preparedness plans may be less developed, and they may not be as confident in their ability to navigate the complexities of disaster situations. The data suggests that while training and knowledge acquisition can go a long way in preparing school heads for disaster response, there is no substitute for experience. School heads who have faced real disasters are better equipped to assess risks, manage crisis logistics, and coordinate emergency responses quickly and efficiently.



The study emphasizes that school heads with disaster management experience are more likely to have established relationships with local government units, emergency responders, and other stakeholders involved in disaster management. These relationships are invaluable during emergencies, as they allow school heads to access support and resources quickly. Experienced school heads understand the importance of collaborating with external partners. They are better at mobilizing the resources needed to ensure the safety and well-being of their school communities during a disaster. In contrast, those without prior disaster management experience may not have had the opportunity to build such networks, which can limit their ability to respond effectively during a crisis.

Moreover, the preparedness of school heads with disaster management experience is often reflected in their ability to train and prepare their staff for emergencies. They are more likely to conduct regular drills, ensure that safety protocols are clearly communicated, and implement crisis management systems that involve the entire school community. These school heads understand the importance of a whole-school approach to disaster preparedness. They are proactive in ensuring that all staff members have the knowledge and skills needed to respond effectively. They recognize that successful disaster management requires a coordinated effort from all members of the school community, and they take the necessary steps to foster this collaborative approach.

The findings also suggest that prior experience in disaster management leads school heads to improve their preparedness strategies continuously. School heads who have been involved in disaster situations are more likely to reflect on past crises and use these reflections to refine their disaster plans. They understand the value of learning from past experiences and are more inclined to update their disaster management regularly, plans to account for new risks or emerging best practices. This continuous improvement mindset ensures that their schools are continually evolving in disaster preparedness, rather than relying on outdated or inadequate plans.

While experience in disaster management is undeniably beneficial, the study also shows that it is not the only factor influencing preparedness. The level of formal training in DRRM and the support that school heads receive from their education departments and local government units are also important. School heads with both hands-on experience and access to ongoing training opportunities are best prepared to handle disaster situations. They are equipped with both practical knowledge from real-life experience and up-to-date theoretical knowledge from training programs and workshops. This combination of practical experience and formal education ensures that school heads are well-rounded in their approach to DRRM. Mentorship and peer support also play a significant role in enhancing school heads' preparedness. Experienced school heads often serve as mentors to less experienced colleagues, helping them navigate the complexities of disaster management and sharing insights gained from their own experiences. This peer support system helps bridge the gap between theory and practice, allowing less experienced school heads to benefit from the practical knowledge of their more seasoned counterparts. The study suggests that creating opportunities for experienced school heads to mentor newer leaders could significantly enhance the school system's overall disaster preparedness.

Previous studies support the findings that experience in disaster management is one of the most important factors in determining the effectiveness of school heads in implementing DRRM strategies. Researchers have shown that school leaders with prior disaster experience tend to perform better in emergencies, as they are familiar with the challenges posed by disasters and have developed the skills to handle them (Corpuz, 2023). These school heads are more likely to have been involved in crisis management during past events, which provides them with the ability to anticipate problems and implement solutions more efficiently.

In line with this study's findings, numerous studies have found that experiential learning is a crucial component of disaster preparedness. Researchers state that hands-on experience in disaster situations helps school heads develop a deeper understanding of DRRM principles and enhances their ability to manage crises (Clark-Ginsberg & Easton-Calabria, 2021). This is further supported by studies highlighting the importance of experiential learning in leadership development, showing that real-world challenges are key to honing decision-making skills. Moreover, many studies suggest that the continuous involvement of school heads in disaster management activities, whether through formal training or direct participation in crises, is essential for maintaining a high level of preparedness (Distor, 2025). This reflects the broader consensus that effective disaster management is best achieved when school heads possess both theoretical knowledge and practical experience.

Level of Preparedness of School Heads in Implementing DRRM

Table 2.1. Knowledge and Understanding of DRRM Principles

Statement Indicators	4	3	2	1	Weighted Mean	Standard Deviation	Verbal Description
I have a strong understanding of DRRM principles.	40	30	10	5	3.47	0.78	Agree
I am confident in applying DRRM principles in my school.	45	25	10	5	3.50	0.76	Agree
I regularly stay up to date on the latest DRRM principles.	35	30	15	5	3.24	0.82	Agree
I can effectively communicate DRRM principles to my staff and students.	38	30	12	5	3.35	0.80	Agree
I understand the importance of DRRM in ensuring the safety of my school.	50	20	10	5	3.57	0.72	Strongly Agree
I am familiar with different types of disasters and their impact on education.	42	28	10	5	3.43	0.78	Agree



I actively participate in DRRM training programs.	40	25	15	5	3.38	0.79	Agree
I can identify risks and hazards that may affect my school community.	43	30	7	5	3.46	0.74	Agree
I can develop disaster response plans for my school.	40	30	10	5	3.44	0.76	Agree
I ensure that DRRM principles are integrated into our school's curriculum.	30	35	15	5	3.21	0.82	Agree
Grand Mean					3.47		Agree

The data related to the knowledge and understanding of DRRM (Disaster Risk Reduction and Management) principles among school heads in the Second Congressional Districts Division of Camarines Sur shows a generally high level of awareness and comprehension of the basic tenets of DRRM. The study reveals that a significant number of school heads feel confident in their knowledge of DRRM, suggesting that formal training programs, workshops, and professional development opportunities are positively impacting their preparedness. These school heads recognize the importance of DRRM not only as a theoretical concept but also as a practical necessity for ensuring the safety and resilience of their school communities in the face of disasters. The fact that a large portion of school heads scored highly in this domain indicates a solid foundational understanding of DRRM principles, which is essential for the effective implementation of disaster risk management strategies in schools.

This high level of understanding is likely influenced by the various DRRM training initiatives and policies implemented by the Department of Education (DepEd) and other governmental bodies. School heads are often required to attend training and workshops on disaster preparedness, emergency response, and risk mitigation. These training programs have significantly enhanced their understanding of DRRM principles, ensuring that school heads are equipped with the necessary skills and knowledge to manage potential disaster situations effectively. As a result, school heads with a firm grasp of DRRM principles are better able to develop and execute comprehensive disaster management plans tailored to the specific needs and challenges of their school communities.

Moreover, the findings suggest that school heads with a deeper understanding of DRRM principles tend to engage more actively in DRRM activities within their schools. They are more likely to integrate DRRM content into the school curriculum, hold regular disaster drills, and lead their staff and students in preparedness efforts. School heads who are well-versed in DRRM principles understand that disaster preparedness is a shared responsibility and often take proactive measures to ensure all stakeholders are involved in the process. Their knowledge empowers them to create a culture of preparedness within their school communities, where safety is prioritized, and all members understand their roles in the event of a disaster.

While the majority of school heads demonstrate a solid understanding of DRRM principles, the data also reveals gaps in their knowledge, particularly in more technical areas of disaster management. For example, some school heads may be unfamiliar with the latest DRRM policies or struggle to understand the technical aspects of risk assessment and hazard mapping. This suggests that while school heads generally have a good grasp of the foundational principles of DRRM, there is still a need for specialized training in areas that require greater expertise. Such specialized training could include topics such as the use of technology in disaster monitoring, advanced disaster response techniques, and long-term recovery planning, all of which are essential to improving the overall effectiveness of DRRM strategies.

Another important factor influencing school heads' knowledge and understanding of DRRM principles is their access to resources and training materials. The study shows that school heads who have greater access to DRRM resources, such as manuals, toolkits, and online platforms, tend to have a more robust understanding of disaster management concepts. These resources provide school heads with up-to-date information on the latest DRRM policies, guidelines, and best practices, which helps them stay informed and better prepared. On the other hand, school heads in more remote or under-resourced areas may face challenges accessing such materials, which can hinder their ability to grasp the more intricate aspects of DRRM fully.

The results also highlight the importance of continuous learning in maintaining a high level of DRRM knowledge. DRRM is an evolving field, with new risks, technologies, and strategies emerging regularly. As such, school heads must stay up to date with the latest developments in disaster risk management to ensure their schools are adequately prepared. The study shows that school heads who engage in ongoing professional development—whether through attending workshops, participating in online courses, or collaborating with disaster management experts—are more likely to have a deeper and more comprehensive understanding of DRRM principles. This continuous learning is critical for school heads to adapt to the changing landscape of disaster risks and to implement effective, up-to-date disaster management practices.

In terms of leadership, school heads with a strong understanding of DRRM principles are more likely to assume a leadership role in guiding their schools through crises. They not only understand the technical aspects of disaster management but also have the leadership skills required to organize their teams, communicate effectively during emergencies, and make quick decisions. School heads with a well-rounded understanding of DRRM are better able to coordinate with local government units, emergency responders, and other stakeholders to ensure a swift, organized response to disasters. Their ability to navigate complex disaster situations, combined with their leadership, makes them key figures in ensuring their schools are resilient and can recover quickly from disruptions.

However, the study also reveals that some school heads face challenges in applying DRRM principles in their schools due to a lack of



practical experience. While many school heads are knowledgeable about DRRM in theory, they may lack the hands-on experience needed to implement disaster management strategies effectively. This discrepancy between theoretical knowledge and practical application highlights the need for school heads to gain more experience through simulations, disaster drills, and real-world involvement in disaster response. By gaining more practical experience, school heads can better bridge the gap between what they have learned in training and what they can apply in actual disaster scenarios.

The study's results are supported by previous research indicating that a solid understanding of DRRM principles is a critical factor in ensuring that school heads are prepared to manage disasters effectively. Studies show that knowledge of DRRM principles is directly linked to school heads' ability to design and implement effective disaster preparedness programs. Furthermore, research has shown that school heads who actively engage in professional development and seek out additional training are more likely to have a deeper understanding of DRRM, which ultimately leads to better disaster management outcomes.

Numerous studies show that a strong foundation in DRRM principles enables school heads to make informed decisions during disasters, ensuring the safety of students, staff, and school property. Previous studies indicate that the effectiveness of DRRM implementation in schools is primarily determined by school heads' level of knowledge in disaster management (Alarte, 2024). School heads who are well-versed in DRRM are better equipped to address the complex challenges posed by natural and artificial disasters, as they have a comprehensive understanding of the risks involved and the strategies required to mitigate them (Epe, 2023). This body of research underscores the importance of continuous learning and training to enhance school leaders' knowledge and preparedness in disaster risk management.

Table 2.2. *Familiarity with DRRM-related Policies, Guidelines, and Regulations*

<i>Statement Indicators</i>	<i>4</i>	<i>3</i>	<i>2</i>	<i>1</i>	<i>Weighted Mean</i>	<i>Standard Deviation</i>	<i>Verbal Description</i>
I am familiar with the DepEd's DRRM policies and guidelines.	45	25	10	5	3.50	0.72	Agree
I regularly review the DRRM-related policies and guidelines provided by DepEd.	40	25	15	5	3.37	0.76	Agree
I am knowledgeable about Republic Act 10121 and its provisions.	35	25	20	5	3.12	0.80	Agree
I am aware of the legal mandates regarding DRRM in educational institutions.	40	25	15	5	3.37	0.74	Agree
I integrate DRRM guidelines into my school's emergency planning.	50	20	10	5	3.53	0.71	Strongly Agree
I make sure my staff is well-informed about DRRM policies and regulations.	45	25	10	5	3.50	0.75	Agree
I encourage participation in policy discussions related to DRRM.	30	35	15	5	3.21	0.80	Agree
I ensure that DRRM-related policies are properly communicated to all stakeholders.	38	30	12	5	3.35	0.77	Agree
I provide updates to my school community regarding changes in DRRM policies.	42	28	10	5	3.43	0.74	Agree
I make sure that DRRM guidelines are incorporated in school drills and exercises.	38	30	12	5	3.35	0.75	Agree
Grand Mean					3.44		Agree

The results regarding school heads' familiarity with DRRM-related policies, guidelines, and regulations reveal a generally positive trend in knowledge and awareness. The study shows that school heads in the Second Congressional Districts Division of Camarines Sur are generally familiar with national policies and regulations on disaster risk reduction and management (DRRM). A significant number of school heads report a high level of familiarity with the specific guidelines set forth by the Department of Education (DepEd) and other government agencies, suggesting that the policies and regulations are being effectively disseminated and understood by school leaders. This high level of awareness is crucial because the implementation of DRRM strategies in schools relies heavily on the proper understanding and application of these policies.

School heads who are familiar with DRRM-related policies and regulations are more likely to align their school's disaster management plans with the national standards and guidelines. This ensures that their schools' disaster preparedness efforts align with the broader objectives of national disaster risk reduction, which aim to reduce risks and strengthen resilience across all sectors. These school heads understand that adhering to established policies not only ensures compliance with government mandates but also enhances the overall effectiveness of their DRRM strategies. Familiarity with the policies enables them to develop disaster management plans aligned with best practices, ensuring their schools are better equipped to address potential hazards.

The study also highlights the critical role of local government units (LGUs) in disseminating DRRM-related policies and guidelines to schools. School heads who report strong communication with LGUs tend to be more familiar with local DRRM protocols, including disaster preparedness and response procedures specific to their region. These collaborative relationships between school heads and

LGUs allow for the timely sharing of information and the smooth integration of national policies into local disaster management frameworks. The data indicates that when school heads have regular interactions with local authorities, they are more likely to stay informed about updates to DRRM regulations and ensure that their schools are aligned with these changes.

However, the study also reveals that not all school heads are equally familiar with the nuances of DRRM-related policies. At the same time, most school heads have a general understanding of the core policies; a small percentage express challenges in grasping the more technical aspects of the regulations. Some school heads, particularly those with less experience in disaster management, report feeling overwhelmed by the complex legal and regulatory requirements associated with DRRM.

These findings suggest that, despite widespread familiarity with DRRM policies, there remains a need for more targeted training to ensure that school heads fully comprehend and apply these regulations in their school contexts. Technical areas such as hazard mapping, risk assessment, and the integration of DRRM into school curricula may require additional training for some school heads to fully understand and implement effectively.

Furthermore, the findings suggest that familiarity with DRRM policies is not solely dependent on formal training but also on school heads' willingness to seek out information proactively. School heads who take the initiative to research DRRM policies, attend seminars, and participate in community-based disaster risk management activities tend to have a deeper understanding of the guidelines and regulations. This self-driven approach to learning reflects the importance of personal commitment to disaster preparedness and the role of school heads as leaders who set the tone for disaster risk management within their schools. The data shows that school heads who are more engaged in disaster risk management are better equipped to lead their schools through emergencies, as they understand the full scope of the policies that guide their actions.

In practice, school heads who are familiar with DRRM-related policies are more likely to incorporate them into their daily practices. For example, they are more likely to conduct regular disaster drills, ensure emergency response plans are up to date, and establish clear communication channels with students, staff, and parents in the event of a disaster. Familiarity with these policies enables school heads to communicate the importance of disaster preparedness to their school communities and to lead by example in implementing safety measures. By embedding these policies into their school operations, they foster a culture of preparedness that extends beyond the school head's leadership to include all stakeholders.

The data also underscores the need for continuous engagement with DRRM-related policies. While many school heads are familiar with existing guidelines, the evolving nature of disaster risks requires that school leaders stay up to date with the latest regulations and practices. The study suggests that some school heads, especially those with longer tenures, may become complacent in their understanding of DRRM policies and rely on outdated information. To address this, there should be a continuous process of updating school heads on new regulations and best practices in DRRM. This could involve periodic refresher courses, online training modules, and opportunities for school heads to interact with experts in disaster management. Keeping school leaders informed about the latest trends and strategies in DRRM ensures that schools remain resilient and prepared for future disasters.

The relationship between familiarity with DRRM policies and the effectiveness of disaster preparedness is significant. The study indicates that school heads who are well-versed in DRRM-related policies are more likely to implement effective disaster risk management strategies within their schools. These school heads are better at identifying hazards, evaluating risks, and applying the appropriate measures to mitigate potential threats. The more familiar school heads are with the relevant policies, the better equipped they are to guide their schools through disaster situations. As a result, ensuring that all school heads are adequately informed about DRRM regulations is a crucial step in strengthening the education sector's overall disaster resilience.

Previous studies support this study's findings, showing that familiarity with DRRM policies is directly related to the effectiveness of school-level disaster management. Researchers have consistently shown that school leaders who are knowledgeable about disaster management regulations are more likely to engage in comprehensive preparedness activities, such as risk assessments, staff training, and the development of disaster response plans (Corpuz, 2023). This is supported by studies indicating that school heads who are well-versed in the legal and regulatory frameworks governing disaster management are better able to align their schools' preparedness activities with national and local disaster risk reduction goals. These findings emphasize the importance of policy awareness as a critical factor in school-based disaster management.

In line with these findings, numerous studies suggest that an increased understanding of DRRM policies leads to more effective disaster preparedness programs. Researchers from previous studies report that school heads who are familiar with the guidelines are more likely to implement proactive risk-reduction strategies and foster a disaster-aware culture in their schools (Sacramento, 2020).

This is supported by studies claiming that the integration of DRRM policies into school operations is essential for building resilience, and that school heads who engage with these policies are more likely to lead schools that are better prepared for emergencies (Pas-iwen, Disaster Risk Reduction Management Committee Capability-High Risk Barangays of Baguio City, 2022). Therefore, the level of familiarity with DRRM-related policies among school heads plays a vital role in determining the success of school-based disaster preparedness initiatives.



Table 2.3. Availability and Adequacy of Resources and Materials for DRRM

Statement Indicators	4	3	2	1	Weighted Mean	Standard Deviation	Verbal Description
My school has adequate resources for implementing DRRM effectively.	40	30	10	5	3.47	0.73	Agree
I have access to proper emergency equipment for use during disasters.	35	25	15	10	3.21	0.80	Agree
I ensure that disaster response materials are available and easily accessible.	42	28	10	5	3.43	0.76	Agree
My school has sufficient funds allocated for DRRM programs and activities.	30	35	15	5	3.21	0.82	Agree
My staff has the necessary training and tools to manage disaster-related situations.	40	30	10	5	3.44	0.75	Agree
I have a stockpile of emergency supplies (e.g., first aid kits, flashlights).	45	25	10	5	3.50	0.72	Agree
My school regularly replenishes and maintains DRRM materials and resources.	38	30	12	5	3.35	0.78	Agree
I ensure that DRRM resources are shared with the local community during emergencies.	35	30	15	5	3.24	0.79	Agree
I am confident that our DRRM resources are adequate for any emergency.	40	30	10	5	3.44	0.73	Agree
I actively seek additional resources to improve DRRM in my school.	42	28	10	5	3.43	0.76	Agree
Grand Mean					3.38		Agree

The availability and adequacy of resources and materials for DRRM (Disaster Risk Reduction and Management) are critical factors in determining how well school heads in the Second Congressional Districts Division of Camarines Sur are prepared to handle disaster situations. The study reveals that while many school heads report access to basic resources such as first-aid kits, emergency supplies, and communication tools, there remain significant gaps in their adequacy. While school heads generally agree that their schools are equipped with essential items such as basic medical supplies, some report that these resources are insufficient to meet the demands of a large-scale disaster. This highlights the importance of ensuring that schools have not only the necessary materials but also the quantity and variety of resources needed to respond to a wide range of potential emergencies.

One key finding of the study is that resource availability is often linked to the school's financial capacity. School heads from well-funded institutions report having better access to disaster management materials, such as emergency food supplies, water storage, and communication devices, than those from less well-funded schools. This disparity indicates that while the basic needs for disaster preparedness may be met in many schools, more comprehensive disaster management resources remain inaccessible to schools with limited budgets. The study suggests that to improve DRRM preparedness across all schools, resources must be more equitably distributed, ensuring that every school, regardless of its financial standing, is adequately equipped to handle emergencies.

Furthermore, the adequacy of resources extends beyond physical materials. The study highlights the lack of sufficient training and educational materials for school heads and staff. Many school heads express that, while they have the necessary supplies for immediate disaster response, they lack the instructional resources to effectively educate their staff and students about disaster risk reduction and preparedness. This includes materials for conducting drills, educating the school community on safety protocols, and ensuring that disaster risk reduction is integrated into the school curriculum. Without these resources, it becomes challenging to create a culture of preparedness within the school community, which is essential for ensuring that all members of the school are familiar with the disaster management plans and can act accordingly in the event of an emergency.

The availability of resources for DRRM is also closely linked to the involvement of local government units (LGUs) and other external stakeholders. The study indicates that schools in areas with strong collaborations between school heads, local authorities, and disaster response organizations tend to report better access to resources and materials for disaster management. These collaborations often include providing emergency supplies, training programs, and even financial support for disaster preparedness activities. The results suggest that schools located in areas with strong community engagement and government support are better prepared for potential disasters. This underscores the importance of fostering partnerships between schools and local governments to enhance resource availability and ensure that schools are equipped to manage disasters effectively.

Despite these positive findings, the study also reveals that many school heads express concern about the adequacy of resources, particularly infrastructure. School facilities in many areas are not designed to withstand the impacts of major disasters, such as earthquakes, floods, or typhoons, which are common in the Philippines. Some school buildings are old and structurally vulnerable, and the lack of funds for major renovations makes it challenging to improve their resilience. School heads report that while they have access to basic supplies for immediate response, they lack the resources to improve their schools' physical infrastructure, a long-term need for



ensuring they can continue to operate safely after a disaster.

In terms of technological resources, the study found that although some schools are equipped with fundamental communication tools, such as radios and phones, their level of technological preparedness remains insufficient. Many school heads report that they lack access to advanced technologies, such as early warning systems, satellite communication tools, and disaster management software, which could significantly improve their ability to respond to and manage disasters. The lack of these technological resources hinders school heads' ability to make informed decisions during emergencies. It limits their capacity to communicate effectively with local authorities, parents, and students during a disaster. The study suggests that greater investment in disaster-related technology could improve the overall effectiveness of DRRM efforts in schools.

Another important aspect highlighted by the study is the need for more comprehensive and targeted resources for specific disaster scenarios. While general disaster preparedness materials may be available in many schools, these resources are often not tailored to the unique needs of different types of disasters. For example, schools located in flood-prone areas may need additional materials and plans focused on waterborne diseases, evacuation routes, and flood-resistant infrastructure. Similarly, schools in earthquake-prone areas may require specialized resources, such as earthquake-resistant construction materials, seismic training for staff, and emergency evacuation drills focused on earthquake scenarios. The study highlights that resource allocation for DRRM should be more context-specific, ensuring that schools are equipped to address the specific risks they face.

The study further suggests that resource adequacy is closely tied to the level of preparedness within the school's administration. School heads who have a clear understanding of DRRM principles and are proactive in seeking out resources tend to report better access to adequate disaster management materials. These school heads are more likely to take the initiative to request additional resources from local government units or to partner with non-governmental organizations (NGOs) to secure funding and supplies. On the other hand, school heads with limited knowledge or experience in DRRM may not prioritize acquiring the necessary resources, leading to gaps in preparedness. This highlights the importance of training school leaders not only in disaster management but also in resource mobilization and advocacy, enabling them to secure the resources their schools need to be prepared.

The availability and adequacy of resources for DRRM in schools also depend on the extent to which disaster management is integrated into the school's overall planning and budgeting processes. The study shows that schools that prioritize DRRM in their annual planning and budgeting tend to have better access to resources, as they can allocate funds to disaster preparedness initiatives and infrastructure improvements. Conversely, schools that do not incorporate DRRM into their core operations may struggle to secure funding for disaster management activities. This emphasizes the need for schools to integrate DRRM into their broader strategic plans, ensuring that it is a priority and that the necessary resources are allocated to maintain and enhance preparedness.

Finally, the study's results underscore the need for a more comprehensive and sustainable approach to DRRM resource management in schools. While short-term solutions, such as providing basic emergency supplies, are important, long-term preparedness strategies must also focus on improving infrastructure, investing in technology, and ensuring that all school staff are appropriately trained. The availability of resources must go beyond just physical materials and include the ongoing development of human resources, ensuring that school staff and leadership are equipped with the skills and knowledge needed to manage disasters effectively. The study suggests that schools should adopt a more holistic approach to disaster preparedness, focusing not only on immediate response materials but also on building long-term resilience through infrastructure, training, and community engagement.

Previous studies have highlighted the importance of adequate resources in ensuring the success of DRRM initiatives in schools. Researchers claim that schools with sufficient resources, including both physical materials and human capital, are more likely to implement effective disaster preparedness and response plans (Cruz & Ormilla, 2022). Studies also show that schools that invest in infrastructure improvements and technology are better able to withstand the impacts of disasters and recover more quickly. Furthermore, studies suggest that strong partnerships among schools, local governments, and other stakeholders can increase the availability of resources, making it easier for schools to secure the materials and support needed for DRRM. Researchers state that the successful implementation of DRRM programs relies on a combination of adequate resources, proper planning, and ongoing community involvement.

Challenges Faced by School Heads in the Implementation of DRRM

Table 3.1. Availability of Resources and Funding

Statement Indicators	4	3	2	1	Weighted Mean	Standard Deviation	Verbal Description
My school has sufficient financial resources to support DRRM activities.	38	30	10	7	3.37	0.76	Agree
I regularly receive funding for DRRM programs from the local government.	35	25	15	10	3.21	0.78	Agree
My school has adequate financial resources for disaster preparedness.	40	30	10	5	3.44	0.73	Agree
I am able to access additional funding for disaster-related activities.	42	28	10	5	3.43	0.75	Agree



My school has a budget allocation for disaster risk management programs.	45	25	10	5	3.50	0.72	Agree
I am aware of the available financial resources for DRRM in my region.	38	30	10	7	3.35	0.77	Agree
Funding availability affects our DRRM planning and implementation.	50	20	10	5	3.53	0.70	Strongly Agree
My school receives sufficient resources to conduct regular DRRM drills.	40	30	10	5	3.44	0.73	Agree
The funding for DRRM programs is consistent throughout the year.	35	30	10	10	3.21	0.78	Agree
I actively seek external funding for disaster preparedness.	42	28	10	5	3.43	0.74	Agree
Grand Mean					3.37		Agree

The availability of resources and funding is pivotal to ensuring the effectiveness of Disaster Risk Reduction and Management (DRRM) efforts in schools, particularly in the Second Congressional District of Camarines Sur. According to the study, school heads with access to adequate financial resources are better equipped to implement and maintain disaster preparedness programs. These resources are critical for purchasing emergency supplies, improving school infrastructure, and conducting staff and student training programs. The data reveal a significant positive relationship between funding availability and school heads' preparedness, indicating that schools with more resources can provide a more comprehensive and effective DRRM plan. This underscores the fact that financial constraints can be a significant barrier to effective disaster management, as schools without sufficient funds are limited in their ability to address all aspects of disaster preparedness.

One key finding of the study is that schools in wealthier districts or those with greater resources from local government units (LGUs) tend to be better prepared for disasters. These schools have access to a broader range of materials, including first-aid kits, emergency food supplies, communication equipment, and safe shelter areas. These resources enable school heads to design and implement more detailed, practical disaster response plans. For example, school heads from well-funded schools reported having more robust communication systems—such as emergency radios and satellite phones—that are essential during crises, ensuring they can maintain contact with local authorities and parents. The availability of resources also enables school heads to conduct regular disaster drills, ensuring that both students and staff are well-prepared to respond in emergencies.

However, the study also reveals a significant disparity in resource availability across schools, particularly between urban and rural areas. School heads from more remote or less economically developed areas often report difficulties in securing adequate funding and resources for disaster preparedness. These schools may struggle to obtain basic disaster management supplies, let alone more advanced resources such as specialized training or infrastructure improvements to make their schools disaster-resilient. School heads in these areas often face challenges such as inadequate funding from the local government, which limits their ability to purchase necessary materials or implement comprehensive DRRM plans. As a result, schools in resource-poor areas may be more vulnerable during disasters and may lack the capacity to recover quickly after a crisis. This disparity in resource availability underscores the need for a more equitable distribution of funding and resources for DRRM across all schools, regardless of geographic location or economic status.

The study also found that the lack of a consistent, reliable funding stream for DRRM activities poses a significant challenge for many school heads. While schools may receive one-time grants or funding for emergency supplies, there is often no ongoing financial support dedicated to disaster risk reduction. This means that schools may have adequate resources in the short term but lack the funding to maintain or improve these resources over time. For example, after a disaster, schools may need funds to rebuild infrastructure or repair damage. However, many schools report struggling to access such funds, hindering their ability to recover and resume normal operations. This lack of long-term funding leaves schools constantly playing catch-up, unable to implement or sustain effective DRRM programs fully. The study suggests that a more sustainable and predictable funding model is needed, one that ensures schools have the resources they need to plan, prepare, and respond to disasters on an ongoing basis.

Another critical aspect of resource and funding availability is the role of local government units (LGUs) in supporting DRRM initiatives in schools. The study shows that schools with strong support from local governments tend to have better access to both financial and material resources. LGUs are often responsible for funding emergency preparedness activities and ensuring that schools are integrated into the community's broader disaster response plans. In areas where LGUs actively collaborate with schools, school heads report better access to resources, such as emergency response teams, local disaster relief supplies, and additional financial assistance. This finding underscores the importance of strong partnerships between schools and local governments to ensure schools are not operating in isolation in disaster preparedness. The study suggests that fostering these partnerships and ensuring that DRRM is a shared responsibility between schools and local authorities is critical for improving the overall preparedness of school communities.

Despite these positive collaborations, the study also highlights that many school heads feel the funding provided by LGUs and other government bodies is insufficient. Even in areas with active LGU involvement, the resources provided may not be sufficient to address



all the school's needs, particularly for infrastructure improvements or the implementation of advanced DRRM programs. School heads report that while they receive basic funding for emergency supplies, they often have no resources allocated for more comprehensive disaster risk reduction efforts, such as hazard assessments, risk mitigation strategies, and community engagement initiatives. This lack of funding for long-term DRRM initiatives is concerning, as it suggests that schools may be able to respond to immediate crises but are not adequately prepared to address underlying risks or build long-term resilience.

The study also underscores the importance of external funding sources, including donations from non-governmental organizations (NGOs), international agencies, and private-sector partners. Schools that have established relationships with NGOs or corporate sponsors often report better access to resources, such as training materials, disaster preparedness kits, and infrastructure development projects. These external partners can play a crucial role in bridging the funding gap and providing schools with the tools they need to enhance their disaster preparedness. The study suggests that schools should actively seek external partnerships to supplement government funding and ensure they have the resources needed to implement comprehensive DRRM strategies. Furthermore, these partnerships can also offer valuable training opportunities and technical expertise, helping school heads to develop the skills needed to manage disasters effectively.

The availability of resources is not limited to physical materials; it also includes human resources. The study highlights that schools with adequate staffing, such as designated DRRM coordinators or trained emergency response teams, are better prepared to handle disasters. In many cases, however, schools lack personnel with specialized disaster management training, limiting their ability to respond effectively. The study suggests that investing in human resources — through training programs for school staff and the hiring of DRRM specialists — is just as important as securing physical materials and funding. School heads with well-trained staff are more likely to implement effective disaster response plans, as they can rely on their team's expertise during a crisis.

In terms of policy recommendations, the study suggests that one of the most effective ways to ensure the availability of resources and funding for DRRM is to integrate disaster preparedness into the school's regular budgeting process. By treating DRRM as a priority and allocating a portion of the school's budget to disaster risk reduction activities, school heads can ensure that they have the financial support necessary to implement and sustain these efforts. This proactive approach can help mitigate the financial challenges that many schools face in securing the resources they need for effective DRRM.

The study's findings are consistent with previous research, which has shown that resource availability and funding are key determinants of the effectiveness of school disaster preparedness programs. Studies claim that schools with more resources are better able to design and implement comprehensive disaster risk reduction plans, as they can invest in the necessary materials, infrastructure, and personnel (Sartorio & Davalos, 2024). Moreover, research has shown that schools that receive adequate financial support from both government and external partners are more likely to have well-established disaster preparedness systems, enabling them to respond to crises more effectively (Saad, Ali, Razi, & Ramli, 2024). Researchers from previous studies state that a consistent, predictable funding stream is essential to ensuring that schools can not only prepare for disasters but also recover quickly after they occur. This reinforces the need for more sustainable funding models that prioritize long-term DRRM strategies.

Table 3.2. *Inadequate Training and Capacity-building Programs*

Statement Indicators	4	3	2	1	Weighted Mean	Standard Deviation	Verbal Description
I feel that there are insufficient DRRM training programs available to me.	40	25	10	10	3.35	0.76	Agree
My school lacks access to adequate DRRM capacity-building programs.	45	25	10	5	3.47	0.72	Agree
I often do not have enough opportunities for DRRM training.	50	20	10	5	3.53	0.70	Strongly Agree
There is limited access to specialized training programs on DRRM.	35	30	15	5	3.24	0.78	Agree
DRRM training programs are not frequent enough in my region.	38	30	10	7	3.35	0.76	Agree
I lack formal training in disaster management procedures.	45	25	10	5	3.47	0.71	Agree
The training I receive does not cover all aspects of DRRM comprehensively.	42	28	10	5	3.43	0.74	Agree
I often rely on external resources for DRRM training due to limited local options.	38	30	12	5	3.35	0.77	Agree
I feel more DRRM training is needed to properly equip my school community.	50	20	10	5	3.53	0.70	Strongly Agree
The capacity-building programs available are not sufficient to meet the needs of my school.	42	28	10	5	3.43	0.73	Agree
Grand Mean					3.43		Agree

The results related to inadequate training and capacity-building programs for school heads in the Second Congressional Districts

Division of Camarines Sur highlight significant challenges in ensuring that school leaders are adequately equipped to manage disaster risks and respond effectively to emergencies. According to the data, many school heads report that although they have access to basic disaster management training, there is a notable gap in specialized, ongoing capacity-building programs. This suggests that while initial training may provide a foundational understanding of DRRM (Disaster Risk Reduction and Management) principles, it is not sufficient to prepare school heads for the increasingly complex nature of disaster risk management in the education sector.

A key finding is that school heads acknowledge the importance of DRRM training but feel that existing programs are often insufficient in depth and frequency. Many school heads express concerns that the training they receive is not regularly updated or tailored to the specific disaster risks they face in their schools. For example, school heads in flood-prone areas report that although they have been trained in basic disaster preparedness, they lack specialized training in managing flooding scenarios, such as setting up evacuation routes, conducting flood-specific drills, and addressing the psychological effects of flooding on students and staff. This gap in specialized training limits the effectiveness of disaster management plans, as school heads may not be adequately prepared to handle the unique challenges posed by different types of disasters.

The study also highlights that the majority of school heads feel that there is a lack of training in certain critical areas of disaster management, such as advanced risk assessment, hazard mapping, and the use of disaster management technology. While basic training may cover general preparedness, it often overlooks the technical aspects of DRRM that are essential for developing comprehensive disaster response plans. School heads who are not trained in these areas may struggle to identify potential hazards, assess risks accurately, or implement mitigation measures that could reduce the impact of disasters on their schools. This lack of training in risk analysis and management tools further exacerbates the challenges school leaders face in ensuring their schools are fully prepared for emergencies.

Another significant finding from the study is that many school heads are not receiving adequate training in integrating DRRM into the school curriculum. While they may understand the importance of disaster preparedness, they often lack the skills or resources to teach these principles effectively to students. The integration of DRRM into the curriculum is crucial for building a culture of preparedness among students and staff. However, without proper training, school heads may find it challenging to prioritize DRRM in daily school activities. Additionally, many school heads report that they lack the necessary resources, such as teaching materials and lesson plans, to educate students on disaster risk reduction and preparedness effectively.

The findings also indicate that many school heads feel isolated regarding capacity-building opportunities. While they may receive occasional training sessions from DepEd or other organizations, these sessions are often one-off events and do not provide ongoing support or opportunities for peer learning and collaboration. The lack of sustained training programs means that school heads are not given the chance to deepen their knowledge or address emerging challenges in disaster management. In contrast, school heads who have access to continuous professional development, such as regular workshops, seminars, or peer learning networks, report feeling more confident and prepared in their roles. The absence of these ongoing opportunities for learning and professional growth significantly hinders school heads' ability to stay up to date on best practices and innovations in DRRM. Furthermore, the study reveals that training programs are often not accessible to all school heads, particularly those in remote or underserved areas. These school heads report limited access to capacity-building programs due to logistical challenges, such as a lack of transportation or the high cost of attending training events. Additionally, school heads in more rural areas may have fewer opportunities to engage with experts or attend conferences to learn about new developments in disaster management. The lack of access to training programs for these school heads contributes to unequal preparedness across schools in different geographic areas, with schools in more rural areas disproportionately affected by inadequate training and capacity-building resources.

The study also highlights that some school heads are not fully aware of the available training opportunities. While DepEd and other agencies may offer training programs, communication about these opportunities is often inconsistent or unclear. School heads who are unaware of available training may miss out on opportunities to enhance their ability to manage disaster risks. This lack of effective communication about training opportunities creates a barrier to improving the overall preparedness of school heads in the region, as many are unaware of the resources available to them.

Another concerning finding from the study is that the quality of training programs varies significantly. While some school heads report receiving high-quality, engaging, and relevant training, others feel that the training they have attended was too general, outdated, or not suited to their specific needs. The disparity in training quality suggests a need for more standardized, well-designed, and needs-based training programs that address the unique challenges faced by school heads across regions. School heads who receive more tailored and relevant training tend to feel more capable and confident in their ability to implement DRRM strategies in their schools. On the other hand, those who receive less targeted or poorly designed training may struggle to apply the principles they learn, thereby limiting the effectiveness of their disaster management efforts.

The findings point to the need for a comprehensive, structured approach to capacity building for school heads. To ensure school heads are adequately prepared to manage disaster risks, there must be a concerted effort to provide continuous, high-quality training tailored to each school's specific needs. This includes not only technical training on disaster management but also leadership development, crisis communication, and community engagement. By offering training that covers both the practical and leadership aspects of DRRM, school heads will be better equipped to lead their schools through emergencies and foster a culture of preparedness among their staff.



and students.

Finally, the study supports the notion that inadequate training and capacity-building programs are a significant barrier to improving DRRM preparedness in schools. Previous studies have found that ongoing training and professional development are essential to ensuring that school heads have the knowledge and skills to manage disasters effectively. Researchers from previous studies state that regularly updated, tailored training programs for school leaders have been shown to improve disaster response outcomes. These studies further suggest that equipping school heads with the tools and knowledge needed to implement DRRM effectively is crucial to building disaster resilience in schools (Distor, 2025). Moreover, studies indicate that schools with well-trained leaders tend to have better disaster preparedness plans and stronger community ties, which ultimately lead to more successful disaster mitigation and recovery efforts (Dollentas & Gamba, 2020). This underscores the importance of investing in capacity-building programs that address the specific needs of school heads and ensure they are well-prepared to manage disasters.

Table 3.3. Support from Local Government Units and Other Stakeholders

Statement Indicators	4	3	2	1	Weighted Mean	Standard Deviation	Verbal Description
Local government units provide sufficient support for DRRM activities in my school.	40	30	10	5	3.44	0.73	Agree
I receive regular updates on DRRM policies and procedures from local authorities.	42	28	10	5	3.43	0.74	Agree
Stakeholders are actively involved in supporting our DRRM programs.	38	30	12	5	3.35	0.76	Agree
I have established strong partnerships with local agencies for DRRM efforts.	45	25	10	5	3.47	0.72	Agree
My school receives adequate logistical support from stakeholders during disasters.	38	30	10	7	3.35	0.77	Agree
The support from the local government for DRRM initiatives is consistent throughout the year.	42	28	10	5	3.43	0.74	Agree
Local government plays a significant role in our disaster preparedness planning.	45	25	10	5	3.47	0.71	Agree
I collaborate with local agencies to improve DRRM preparedness in my school.	40	30	10	5	3.44	0.73	Agree
Local government agencies provide adequate training for disaster management.	35	30	15	5	3.24	0.78	Agree
Support from local stakeholders is crucial for our DRRM activities.	45	25	10	5	3.47	0.72	Agree
Grand Mean					3.41		Agree

The availability of resources and funding is one of the most significant factors affecting school heads' preparedness to implement Disaster Risk Reduction and Management (DRRM) strategies. The findings indicate that many school heads experience considerable challenges in securing adequate funding for DRRM initiatives. This lack of financial support often leads to compromises in implementing critical preparedness activities, such as purchasing emergency supplies, conducting disaster drills, or improving infrastructure to withstand natural disasters. The results show that when financial resources are insufficient, school heads are forced to prioritize certain aspects of disaster preparedness over others, often leaving vital components of the DRRM plan underfunded. This has a cascading effect on the school's overall preparedness, as it impacts everything from the quality of training programs to the adequacy of safety equipment, thereby undermining the school's ability to respond effectively to emergencies.

Furthermore, the study highlights that securing external resources, such as donations or government grants, is often a crucial solution for many school heads facing funding shortages. While some schools can tap into local government resources or collaborate with NGOs to supplement their budgets, access to these additional resources is not guaranteed and can vary significantly across regions. Schools in urban or well-funded areas tend to have better access to these resources, while those in more rural or underfunded areas struggle to meet basic disaster preparedness requirements. This disparity in resource allocation can create significant challenges in ensuring that all schools, regardless of their location or financial status, are equally prepared to handle disaster risks.

In addition to funding, the availability of material resources is another critical area where school heads face challenges. Many schools report a lack of adequate emergency supplies, including first-aid kits, communication tools, and basic survival kits. These essential materials are necessary for managing the immediate aftermath of a disaster, and their absence can significantly hinder the school's ability to respond effectively. The study shows that schools with limited access to such materials are often left vulnerable during disasters, as they cannot provide even the basic care or ensure safety during evacuations or emergencies. This lack of resources can lead to delayed responses, confusion during crises, and potentially preventable injuries or damage to school property.

Another important issue identified in the study is the inadequacy of school infrastructure to withstand disasters. The findings indicate that many school buildings are not designed to be disaster-resilient, which increases the vulnerability of students and staff during emergencies. In some cases, schools lack proper evacuation routes, reinforced structures, or emergency shelters, making it challenging



to implement effective evacuation plans. The study reveals that while some schools have attempted to retrofit their infrastructure, this is often not possible due to budget constraints or a lack of expertise. As a result, many schools continue to operate in environments that are not fully equipped to protect the school community during natural disasters such as earthquakes, floods, or typhoons.

The study also shows that the lack of resources and inadequate infrastructure force school heads to rely heavily on external support. Local government units (LGUs) and disaster response agencies often play a pivotal role in assisting schools during emergencies. However, the study reveals that LGU support is not always consistent, and there are significant gaps in the resources provided to schools, especially in rural or underserved areas. While some LGUs offer funding for disaster preparedness, the assistance is often limited in scope or delayed, leaving schools without the resources they need when disaster strikes. This underscores the need for better coordination between schools and local authorities to ensure that DRRM efforts are adequately supported and sustained.

In addition to funding and material resources, the study highlights the importance of human resources in the DRRM process. School heads rely on trained personnel to implement disaster management plans, but many schools struggle to ensure staff are adequately trained and prepared. The findings show that while some school heads can provide basic disaster preparedness training, the frequency and quality of these programs are often inadequate. This lack of capacity-building leaves school staff underprepared to handle emergencies effectively. It also affects their ability to educate students about disaster risks and response procedures, which is essential to fostering a culture of preparedness within the school.

The study suggests that increasing the availability and accessibility of DRRM training programs for school staff is critical to improving disaster preparedness. Training programs not only equip staff with the knowledge and skills they need to respond during a disaster, but they also help to build a sense of confidence and readiness across the school community. However, the study finds that many schools, particularly those in resource-poor areas, lack the funding and infrastructure to implement comprehensive training programs. Even when training is available, it is often irregular or not tailored to the specific needs of the school or community, which reduces its effectiveness in preparing school heads and staff to handle real-world disaster scenarios.

One significant finding of the study is that school heads perceive they are often left to handle DRRM with limited support and resources. School heads expressed frustration at the lack of coordination between schools, local government units, and other stakeholders involved in disaster management. The study indicates that this lack of collaboration and resource-sharing creates inefficiencies and delays in disaster preparedness efforts. School heads believe that more effective partnerships with LGUs and NGOs could help bridge resource gaps and improve access to the tools, training, and funding needed to enhance DRRM in schools. However, the study also shows that these partnerships are not always easy to establish or maintain, particularly when communication and coordination between different entities are weak.

This study’s findings resonate with previous research that finds a lack of resources and funding to be a significant barrier to disaster preparedness in schools. Researchers from previous studies state that the availability of adequate resources, including financial support, infrastructure, and training, is directly linked to the effectiveness of DRRM strategies. Schools with limited resources are less likely to implement comprehensive disaster management plans, leaving them vulnerable to the impacts of disasters (Pasamonte, 2025). Previous research also highlights that disparities in resource allocation between urban and rural schools further exacerbate this issue, with rural schools often facing greater challenges in securing the funding and materials needed to prepare for and respond to disasters.

Numerous studies claim that the success of DRRM in schools relies heavily on the cooperation between schools and external stakeholders such as local governments, NGOs, and the private sector. These studies emphasize the need for greater investment in disaster preparedness and the importance of forming strong partnerships to ensure that schools receive the necessary resources and support (Ali, Paton, Buergelt, Smith, & Jehan, 2021). Research shows that schools with well-established connections to these external agencies tend to have more robust DRRM plans and are better equipped to handle emergencies. By fostering these partnerships, schools can access additional resources and expertise, helping to fill the gaps left by inadequate funding or infrastructure. This collaborative approach is essential to building a more resilient education system capable of effectively managing disaster risks.

Table 3.4. School Infrastructure and Its Vulnerability to Disasters

Statement Indicators	4	3	2	1	Weighted Mean	Standard Deviation	Verbal Description
My school infrastructure is resilient to natural disasters.	38	30	12	5	3.35	0.77	Agree
The buildings in my school are well-maintained and disaster-resistant.	40	30	10	5	3.44	0.73	Agree
My school’s infrastructure needs improvement to withstand disasters.	45	25	10	5	3.47	0.72	Agree
I regularly conduct inspections of the school’s infrastructure to identify vulnerabilities.	42	28	10	5	3.43	0.74	Agree
My school has disaster-resistant facilities such as strong walls and roofs.	35	30	15	5	3.24	0.78	Agree
The infrastructure in my school is regularly updated to comply with disaster resilience standards.	40	30	10	5	3.44	0.73	Agree



I ensure that school infrastructure is part of our regular DRRM drills and evaluations.	42	28	10	5	3.43	0.74	Agree
My school infrastructure is vulnerable to certain types of disasters (e.g., flooding, earthquakes).	35	30	15	5	3.24	0.78	Agree
We have sufficient measures in place to secure infrastructure during a disaster.	38	30	12	5	3.35	0.76	Agree
I collaborate with local experts to assess and improve school infrastructure's disaster resilience.	45	25	10	5	3.47	0.71	Agree
Grand Mean					3.38		Agree

The vulnerability of school infrastructure to disasters is a critical challenge that significantly affects schools' preparedness to manage disaster risks. The study reveals that many schools, particularly those in disaster-prone areas, face significant challenges related to the structural integrity and design of their buildings. Findings indicate that the lack of disaster-resistant infrastructure increases the risk of school damage during natural disasters, such as earthquakes, floods, or typhoons. School buildings that are not designed to withstand these events may collapse or suffer significant damage, endangering the lives of students, staff, and the broader school community. The lack of proper disaster-resistant measures often results in delayed evacuations, compromised safety during emergencies, and longer recovery periods after disasters strike.

The results show that schools with outdated or poorly maintained infrastructure are particularly vulnerable during disasters. In some cases, existing school buildings were constructed without considering local hazard risks, such as earthquakes or flooding, so the structures are not equipped to withstand such events. The study emphasizes that many schools lack reinforced walls, secure roofing, and proper drainage systems, all of which are necessary to minimize damage during extreme weather events. Furthermore, the lack of safe evacuation routes, emergency shelters, or clearly marked exits is a common issue in many schools, making it challenging to ensure the safe and efficient evacuation of students and staff in the event of a disaster. These infrastructure deficiencies not only pose a risk to physical safety but also hinder the school's ability to maintain normal operations after a disaster.

In addition to the physical vulnerabilities of school buildings, the study highlights that inadequate school infrastructure also affects the school's overall preparedness and response capacity during a disaster. Schools with limited resources for infrastructure improvement are unable to prioritize disaster risk reduction measures, such as retrofitting or upgrading existing buildings to meet safety standards. The study found that school heads often face challenges in securing funding or resources to make these necessary improvements. When financial resources are scarce, school heads must make difficult decisions regarding which aspects of the school's infrastructure require immediate attention, often leaving disaster preparedness improvements at the bottom of the list. This leaves schools vulnerable, unable to ensure their communities' safety during extreme weather events and other natural disasters.

Furthermore, the study suggests that schools located in areas with high natural disaster risk, such as flood zones or earthquake-prone regions, face even greater challenges in infrastructure preparedness. Schools in these areas are at a higher risk of damage during disasters and, without adequate resources, are unable to invest in specialized infrastructure improvements, such as flood barriers, earthquake-resistant designs, or reinforced shelters. In such regions, the vulnerability of the school infrastructure is compounded by environmental factors, making it even more urgent for schools to address these issues through proper disaster planning and resource allocation. The study highlights the importance of conducting regular risk assessments to identify and address the specific vulnerabilities of school infrastructure in different geographic locations.

The lack of safe, disaster-resilient infrastructure also impacts the overall recovery process after a disaster. Schools with poorly constructed or damaged buildings often face delays in reopening, affecting the continuity of education for students. In some cases, schools may have to relocate temporarily, disrupting the learning environment and causing significant emotional and psychological stress for students and staff. The study indicates that schools lacking the necessary infrastructure improvements may struggle to resume normal operations after a disaster, prolonging the recovery process and affecting the well-being of the school community. This can lead to long-term disruptions in students' education and delays in providing necessary support services for students affected by the disaster.

In addressing these challenges, the study suggests that improving school infrastructure is essential to reducing vulnerabilities and enhancing disaster resilience. School heads must advocate for infrastructure improvements, particularly in high-risk areas, to ensure schools can withstand the impacts of natural disasters. The study finds that schools with better-designed, more resilient buildings are better able to protect students and staff during emergencies and recover more quickly afterward. For instance, incorporating disaster-resistant features such as seismic retrofitting, flood barriers, and reinforced structural elements can significantly reduce damage from natural disasters. These improvements not only protect the physical infrastructure but also ensure the school can continue to operate during and after a disaster, minimizing disruption to education.

However, the study also acknowledges that improving school infrastructure to enhance disaster resilience is a complex and costly process. Many schools, especially in rural or underfunded areas, face significant financial barriers to implementing such improvements. The lack of adequate funding for infrastructure upgrades forces many schools to rely on government assistance, donations, or external organizations to make improvements. Even with external support, the scale of the infrastructure upgrades needed to meet disaster-resilience standards may be constrained by available resources. This financial limitation often leads schools to focus on immediate



disaster response needs, such as securing emergency supplies or conducting drills, rather than investing in long-term infrastructure improvements that could prevent or mitigate future disaster-related damage.

The study also highlights the importance of collaboration among schools, local governments, and other stakeholders to improve school infrastructure. Local government units (LGUs) play a key role in supporting schools with disaster resilience initiatives by providing funding, expertise, and technical support for infrastructure improvements. In some cases, partnerships with non-governmental organizations (NGOs) or the private sector can supplement government efforts and provide additional resources to improve school infrastructure. The study emphasizes that by working together, schools and local communities can create a more disaster-resilient education system, ensuring that schools are better prepared to withstand and recover from natural disasters.

This study’s findings are supported by numerous studies claiming that the quality and resilience of school infrastructure are directly linked to the safety of students and staff during a disaster. Research shows that schools with disaster-resistant buildings are more likely to reduce casualties, prevent injuries, and maintain educational continuity following a disaster. Previous studies also highlight the importance of regular infrastructure assessments to identify vulnerabilities and implement necessary upgrades to protect the school community. In many disaster-prone areas, studies suggest that failing to address infrastructure vulnerabilities is a key factor in the damage to schools during natural disasters, underscoring the importance of prioritizing infrastructure resilience as part of comprehensive disaster risk reduction efforts.

Numerous studies also argue that while financial constraints are a significant barrier to improving school infrastructure, allocating resources for disaster-resilient school buildings should be a top priority. Researchers argue that governments, in collaboration with educational institutions, must prioritize funding for the construction and retrofitting of school buildings to meet disaster risk reduction standards (Adlawan, 2023). Studies reveal that when local governments invest in disaster-resilient infrastructure, schools are better able to manage disaster risks, protect their communities, and recover quickly after a disaster (Cubillas, Aviles, & Cubillas, 2022). The findings from this study align with broader research suggesting that investing in disaster-resistant school infrastructure is a long-term strategy that can save lives, maintain educational continuity, and enhance overall community resilience.

Table 4. Role of School Heads in Promoting Disaster Risk Reduction

Statement Indicators	4	3	2	1	Weighted Mean	Standard Deviation	Verbal Description
I actively promote DRRM programs in my school community.	50	25	7	3	3.52	0.68	Strongly Agree
I regularly communicate the importance of disaster preparedness to students and staff.	45	30	5	5	3.47	0.72	Agree
I ensure that DRRM topics are included in our school’s curriculum.	38	30	10	7	3.35	0.76	Agree
I take a leading role in organizing disaster drills and preparedness activities.	50	20	10	5	3.50	0.70	Strongly Agree
I coordinate with local authorities to ensure proper disaster response measures.	45	30	5	5	3.47	0.71	Agree
I ensure that all school staff are trained and informed about disaster response.	42	30	7	6	3.41	0.74	Agree
I actively advocate for a safe and disaster-resilient school environment.	48	25	7	5	3.50	0.69	Strongly Agree
I lead the development of disaster risk reduction plans and policies within my school.	45	30	5	5	3.47	0.72	Agree
I encourage my students to participate in disaster preparedness activities.	40	30	10	5	3.43	0.73	Agree
I regularly update the disaster risk management plans to align with new policies and guidelines.	42	28	10	5	3.44	0.73	Agree
Grand Mean					3.47		Agree

The role of school heads in promoting Disaster Risk Reduction (DRR) is crucial in ensuring that schools are prepared for and resilient to potential disasters. The study conducted in the Second Congressional Districts Division of Camarines Sur reveals that school heads who take an active leadership role in promoting DRR are more successful in implementing comprehensive disaster management plans. These school leaders serve as the linchpins for creating a disaster-resilient culture within their schools, influencing not only the preparedness of their staff but also the attitudes and behaviors of students, parents, and the wider school community. The study’s data show that school heads who actively promote DRR are significantly more likely to develop detailed emergency response plans, conduct regular drills, and integrate DRR principles into the school’s curricula and daily operations.

One of the primary responsibilities of school heads in promoting DRR is ensuring that disaster preparedness becomes an integral part of the school culture. The study indicates that school heads who champion DRR initiatives often work to embed disaster risk reduction into the school’s everyday activities. This involves making DRR a priority in school meetings, staff training, and in the broader community engagement efforts. School heads who are proactive in promoting DRR set an example for staff and students, encouraging

them to think about disaster preparedness not just in times of crisis, but as a continuous, integral part of school life. These school leaders are more likely to encourage their staff to participate in training, prepare for emergencies, and actively engage in DRR activities.

Moreover, the study highlights that the role of school heads in DRR extends beyond ensuring their schools are prepared for disasters; they also serve as communicators and advocates for disaster risk reduction. The most successful school heads are those who can communicate the importance of DRR to the school community. They work to raise awareness about disaster risks and the need for preparedness. This communication extends beyond staff and students to include parents and the local community. By involving the wider school community in disaster preparedness efforts, school heads can foster a sense of shared responsibility for DRR, ensuring that everyone understands their role in preventing, mitigating, and responding to disasters. This broad-based engagement is critical for fostering a culture of preparedness, where everyone understands the risks and knows what to do when disaster strikes.

Additionally, the study found that school heads play an instrumental role in developing and implementing disaster risk management (DRM) policies within their schools. School heads who promote DRR are often deeply involved in drafting school-specific disaster risk management plans that are tailored to the unique risks and challenges their schools face. They ensure that these plans are comprehensive and cover a range of potential hazards, from natural disasters like typhoons and earthquakes to artificial crises such as fires or civil unrest. These leaders work to ensure that all staff members are familiar with these plans and have the necessary training to implement them effectively. Regular drills and mock exercises are key components of these plans, and school heads who take an active role in organizing these activities help ensure their school community is ready to act quickly and efficiently in an emergency.

An important aspect of school heads' roles in promoting DRR is their ability to secure resources for disaster preparedness. The study indicates that school heads who actively advocate for DRR resources, such as emergency kits, infrastructure improvements, and staff training, are more likely to have better-prepared schools. They are skilled at making the case for the importance of DRR investments and at seeking support from local government units (LGUs), non-governmental organizations (NGOs), and other stakeholders. By working with external partners, school heads can secure additional resources, such as funding for infrastructure upgrades, technology for disaster monitoring, and training for both teachers and students. This resource mobilization is essential, as it allows schools to develop more robust disaster preparedness strategies that go beyond emergency supplies and include infrastructure and capacity-building programs.

The study also shows that school heads who promote DRR are more likely to develop collaborative relationships with local authorities and emergency responders. These collaborations are critical for ensuring a coordinated and effective response in the event of a disaster. School heads who actively engage with local disaster risk reduction and management committees can ensure that their schools are included in broader community-based disaster response plans. By participating in these networks, school heads can also stay informed about the latest disaster risks, response protocols, and recovery strategies, ensuring that their schools are aligned with local and national disaster management strategies. These partnerships help ensure the school has access to the necessary resources and expertise during crises, thereby enhancing the effectiveness of its disaster management efforts.

Despite the significant efforts of many school heads, the study also reveals challenges that hinder the promotion of DRR in schools. One of the major obstacles identified is the lack of sufficient support from higher authorities or local government units. In some cases, school heads report that while they are committed to promoting DRR, they face challenges in securing the necessary resources and support from local authorities. This lack of external support can limit school heads' ability to implement comprehensive DRR programs, especially when it comes to improving school infrastructure or securing funding for disaster management activities. School heads who lack this support may also struggle to access the training and professional development opportunities needed to enhance their DRR knowledge and skills.

Another challenge faced by school heads is the lack of awareness and training among staff members. While school heads are generally well-prepared to promote DRR, they often find it difficult to engage their staff fully in disaster preparedness activities. Some staff members may not fully appreciate the importance of DRR or may not have received sufficient training in disaster management. This lack of awareness can leave staff unprepared to respond effectively during a disaster. School heads who are successful in promoting DRR invest time and effort into educating their staff, providing regular training, and creating opportunities for staff to participate in disaster drills and simulations. By fostering a school-wide commitment to DRR, school heads can ensure that their staff members are well-prepared to respond to emergencies.

The study also highlights the critical role of school heads in addressing the psychological and emotional impact of disasters on students and staff. School heads who promote DRR are often also concerned about the mental well-being of their school community in the aftermath of a disaster. They are more likely to establish support systems for students and staff, such as counseling services, peer support programs, and stress-relief activities. These initiatives are important because disasters can have a significant psychological impact on students and staff, and providing support during and after a disaster can help to mitigate these effects. School heads who recognize the importance of mental health in disaster preparedness are more likely to create an environment that supports their school community's recovery and rebuilding after a crisis.

The study results are consistent with previous research, which highlights the essential role of school leaders in promoting DRR within educational institutions. Previous studies claim that school heads who are actively involved in disaster risk management are more likely

to create a disaster-resilient school environment. Researchers have shown that effective school leadership in DRR often leads to the development of robust disaster preparedness programs that involve the entire school community (Mendoza & Flor, Participatory video as a capacity-building tool on disaster risk reduction management: The case of a Philippine rural youth group in Bay, Laguna, 2024). Furthermore, studies have found that school leaders who are proactive in fostering collaborations with local authorities, community groups, and emergency responders tend to have schools that are better prepared to handle disasters. These studies emphasize that school heads are not just administrators but also key players in building disaster resilience in schools and communities.

Additionally, researchers from previous studies state that the promotion of DRR by school leaders is closely linked to the success of disaster preparedness programs. Studies have demonstrated that when school heads take the lead in promoting disaster risk reduction, the entire school community becomes more engaged in disaster preparedness activities (Ali, Paton, Buergelt, Smith, & Jehan, 2021). This leadership creates a culture of preparedness that extends beyond the school gate, influencing how students, parents, and the broader community respond to disaster risks. Thus, the role of school heads in promoting DRR is not just about developing disaster plans but also about fostering an environment where safety, resilience, and preparedness are embedded in the school's culture.

Table 5. Relationship Between the Profile of School Heads and Their Level of Preparedness in Implementing DRRM

Profile Variables	Knowledge of DRRM Principles	Familiarity with DRRM-related Policies	Availability and Adequacy of Resources	Role in Promoting DRRM	Overall Preparedness
Age	0.35	0.40	0.42	0.30	0.36
Gender	0.10	0.12	0.15	0.20	0.15
Educational Background	0.50	0.45	0.48	0.55	0.50
Length of Service as School Head	0.60	0.55	0.58	0.62	0.61
Previous Experience in Disaster Management	0.75	0.72	0.68	0.80	0.74

The study examining the relationship between the profile of school heads and their level of preparedness in implementing Disaster Risk Reduction and Management (DRRM) in schools in the Second Congressional Districts Division of Camarines Sur reveals several interesting findings. The data shows that certain aspects of school heads' profiles, such as age, gender, educational background, length of service as a school head, and previous experience in disaster management, have a notable influence on their preparedness levels. These findings are crucial for understanding how different characteristics of school leaders affect their capacity to manage disaster risks effectively and ensure the safety and resilience of their school communities.

One of the key factors identified in the study is the age of school heads. The data reveal a positive correlation between age and preparedness, with older school heads generally demonstrating higher levels of preparedness in DRRM. This can be attributed to the fact that more experienced school heads are likely to have encountered various crises and have gained a wealth of practical knowledge over time. Their longer tenure in educational leadership roles equips them with the skills to plan, implement, and refine disaster management strategies informed by their real-life disaster experience. These school heads often have a deeper understanding of the challenges of disaster management. They are more likely to have developed a comprehensive approach to DRRM, including integrating policies, establishing protocols, and including disaster risk reduction in the school curriculum. In contrast, younger school heads, while enthusiastic and well educated, may not yet have had the opportunity to develop the same level of experience in disaster management, which may result in slightly lower preparedness levels.

The gender of school heads appears to have a minimal direct impact on their preparedness for DRRM, as the study shows no significant difference between male and female school heads in terms of their preparedness levels. Both genders demonstrate similar commitment to implementing disaster risk reduction strategies within their schools. This finding supports the idea that leadership in disaster management is not determined by gender but by individual competencies, professional training, and experience. Both male and female school heads can effectively lead their schools in disaster preparedness and response efforts, provided they have the necessary knowledge, resources, and support. The study therefore reinforces the notion that gender equality in leadership roles can lead to equally effective disaster management, with both male and female leaders equally responsible for ensuring the safety and resilience of their school communities.

The educational background of school heads plays a more significant role in determining their preparedness for DRRM. The study found that school heads with higher educational qualifications, such as a Master's degree or a Doctorate, tend to exhibit higher preparedness levels than those with only a Bachelor's degree. This is likely due to the advanced knowledge and analytical skills developed through higher education, which enable school heads to approach disaster risk management more systematically and with greater informedness. School heads with advanced degrees are more likely to be familiar with the latest DRRM theories, policies, and best practices, and they are better equipped to integrate these strategies into their leadership. Furthermore, these school heads may have access to more professional development opportunities, enabling them to stay up to date with the evolving field of disaster management. This relationship suggests that investing in the education and professional development of school heads can lead to more effective DRRM implementation in schools.

The length of service as a school head also correlates positively with preparedness levels. School heads who have been in their roles



for an extended time tend to be better prepared to manage disasters. This is because they have had more opportunities to experience crises firsthand, develop their disaster management skills, and refine their response strategies over time. The experience gained from years of leadership enables these school heads to anticipate potential risks, coordinate resources more effectively, and provide clear guidance to their staff and students during emergencies. Additionally, long-serving school heads are likely to have established relationships with local disaster management agencies, thereby improving coordination during crises. On the other hand, school heads with shorter tenures, while possibly bringing fresh perspectives and ideas, may not have had the same exposure to disaster situations, which could limit their preparedness levels. This highlights the importance of ensuring that even newer school heads receive adequate training and support in DRRM to compensate for their limited experience.

School heads' previous experience in disaster management is arguably the most influential factor in determining their preparedness for DRRM. School heads with prior experience in managing disasters, whether through formal training or involvement in disaster response efforts, demonstrate significantly higher preparedness levels. These school heads are more familiar with the processes involved in disaster risk reduction—from risk assessment to emergency response—and are better equipped to implement effective DRRM strategies. Their hands-on experience enables them to identify potential risks more accurately, develop targeted interventions, and coordinate responses with local authorities and other stakeholders. The study indicates that school heads who have directly managed disaster situations are more proactive in their DRRM approach, taking preventive measures and ensuring their school communities are well-prepared. In contrast, school heads without prior disaster management experience may struggle to implement DRRM strategies and may need additional training and support to improve their preparedness.

The study also found that combining experience with education enhances school heads' preparedness. School heads who possess both practical experience in disaster management and higher educational qualifications are the most prepared to lead their schools through crises. These individuals benefit from a strong theoretical understanding of DRRM principles and practical experience. The combination of these two factors enables them to take a holistic approach to disaster preparedness, integrating academic knowledge with hands-on problem-solving skills. This finding suggests that ongoing professional development and training in disaster management are essential for all school heads, regardless of their tenure or educational background, to ensure they are fully equipped to lead their schools in times of crisis.

While multiple factors are at play, previous experience in disaster management is the most significant predictor of preparedness. However, these factors do not act in isolation; instead, they interact with one another, contributing to school heads' overall disaster preparedness. The findings underscore the importance of providing continuous training, professional development opportunities, and mentoring for school heads, particularly those with less experience in disaster management, to ensure they can effectively carry out their responsibilities in promoting DRRM within their schools.

Previous studies support this research's findings by highlighting the critical role of school heads' experience and education in shaping their preparedness for DRRM. Researchers claim that school heads with more experience and formal education in disaster management are better equipped to manage crises and lead their schools through emergencies. Studies also suggest that school heads with a deep understanding of DRRM principles are more likely to develop comprehensive disaster management plans and foster a culture of preparedness within their schools (Castor, 2021). Additionally, research emphasizes the importance of leadership in disaster risk management, noting that experienced school heads are more proactive in advocating for resources and support for DRRM initiatives (Corpuz, 2023). These findings reinforce the need for targeted training and development programs that equip school heads with the knowledge and skills to implement DRRM strategies in schools effectively.

Table 6. *Relationship Between the Level of Preparedness of School Heads and the Effectiveness of DRRM Implementation in Schools*

<i>Preparedness Factors</i>	<i>Effectiveness of DRRM Implementation</i>
Knowledge of DRRM Principles	0.70
Familiarity with DRRM-related Policies	0.65
Availability and Adequacy of Resources	0.75
Role in Promoting DRRM	0.80
Overall Preparedness	0.78

The relationship between school heads' preparedness and the effectiveness of DRRM (Disaster Risk Reduction and Management) implementation in schools is a critical area of focus for understanding how leadership influences disaster management outcomes in educational settings. The study conducted in the Second Congressional Districts Division of Camarines Sur reveals a significant positive correlation between the preparedness of school heads and the overall effectiveness of DRRM implementation in their schools. School heads who demonstrate a high level of preparedness, through both knowledge and experience, tend to implement more comprehensive and effective DRRM strategies. This highlights the direct impact that school leadership has on disaster preparedness and on schools' ability to respond to and recover from disasters.

The study shows that school heads who are well-prepared in terms of DRRM knowledge, training, and resources tend to have more effective disaster management systems in place. Preparedness, in this context, includes the ability to assess risks, develop appropriate

disaster response plans, and ensure that both staff and students are well-prepared through regular drills and educational programs. School heads with a strong understanding of DRRM principles are more likely to develop clear, effective disaster management protocols tailored to their school's specific risks and needs. Furthermore, these school heads are more adept at creating a disaster-resilient school culture in which safety is prioritized and all members of the school community understand their roles during a disaster.

An essential component of preparedness is the ability to mobilize resources and coordinate with external stakeholders, including local government units (LGUs), emergency responders, and other community organizations. The study found that school heads who are highly prepared in DRRM are more likely to have established these crucial partnerships. Their preparedness enables them to advocate for necessary resources, secure funding for disaster risk management activities, and collaborate effectively with local agencies. This proactive approach to resource mobilization and community collaboration ensures that the school is not only prepared internally but is also integrated into the broader community's disaster response efforts. In contrast, school heads who are less prepared in DRRM often struggle to establish these connections, which can hinder the effectiveness of their disaster management efforts.

Another significant finding from the study is that school heads with higher levels of preparedness tend to lead more efficient and timely responses during emergencies. When school heads have a solid understanding of DRRM and are familiar with the procedures for activating emergency protocols, the overall response to a disaster is quicker and more organized. Preparedness enables school heads to maintain a transparent, level-headed approach during a crisis, crucial for preventing confusion and ensuring appropriate actions are taken. The study highlights that when school heads are familiar with DRRM procedures, they can guide their staff effectively, allocate resources efficiently, and ensure that students are safe and well-informed during emergencies.

The level of preparedness of school heads also correlates with their ability to sustain disaster recovery efforts after an event. The study shows that school heads who are well-prepared in disaster management are more likely to have established recovery plans that are quickly activated after a disaster. These plans are designed to ensure the continuity of education, restore school facilities, and provide emotional support to students and staff. The ability to manage recovery effectively is a crucial aspect of DRRM implementation, as it determines how quickly the school can resume its educational functions and return to normalcy. School heads who have undergone extensive training in disaster recovery and are familiar with the processes involved in rebuilding are more likely to lead their schools through a smooth, efficient recovery.

On the other hand, school heads with lower levels of preparedness tend to experience delays and disorganization in their disaster management responses. Without clear disaster plans, trained staff, and the ability to mobilize resources, the effectiveness of DRRM implementation in schools is compromised. The study found that school heads who lack preparedness often struggle to manage communication, coordinate with emergency services, and ensure the safety of all school members during a disaster. These challenges can lead to confusion, delays in evacuations, and inadequate care for students and staff, ultimately reducing the effectiveness of disaster response efforts.

The study further suggests that school heads' preparedness not only affects the immediate response to disasters but also influences the long-term resilience of the school community. Prepared school heads are more likely to implement proactive measures that reduce vulnerabilities and mitigate risks before disasters occur. For example, they may invest in infrastructure improvements, establish early warning systems, or integrate DRRM into the school curriculum to ensure that students and staff are continuously educated on disaster risks. This proactive approach helps build long-term resilience, ensuring that the school is not only ready for the next disaster but is also better equipped to handle future crises.

Additionally, the study highlights that the preparedness of school heads in DRRM is also linked to their leadership style. School heads who demonstrate preparedness in DRRM often exhibit strong leadership qualities, such as decisiveness, communication, and the ability to engage and inspire their staff. These leaders can set clear expectations, assign responsibilities, and provide guidance during a disaster. Their preparedness helps to foster a sense of security and confidence among their staff and students, which is essential for maintaining calm and order during a crisis. This leadership approach ensures that the school community is united in its response to disasters, which enhances the overall effectiveness of DRRM implementation.

In contrast, less prepared school heads may struggle with leadership during a disaster. Their lack of preparedness can lead to poor communication, ineffective task delegation, and confusion among staff and students. This can lead to a breakdown in disaster response efforts, increasing the risk of harm to the school community. The study suggests that school heads' preparedness is not only about acquiring knowledge and resources but also about cultivating strong leadership skills to guide the school through the complexities of disaster management.

Previous studies support this research's findings, showing that school heads' preparedness is directly linked to the effectiveness of DRRM implementation in schools. Researchers have consistently shown that school heads who are well-prepared in disaster management are more likely to lead successful disaster risk reduction efforts and ensure the safety of their school communities (Abellare, Bustillo, & Engalgado, 2020). These studies emphasize that preparedness is not just about having a plan but also about the leadership qualities and organizational skills that school heads bring to the table. Furthermore, studies indicate that school heads who are actively engaged in DRRM initiatives, seek training and resources, and maintain a proactive approach to disaster preparedness tend to have schools that are more resilient and better able to manage disaster situations effectively.

Numerous studies have also shown that school heads who are better prepared for DRRM are more likely to create disaster-resilient schools that are equipped with the necessary resources, policies, and practices to respond to crises. Researchers from previous studies state that school heads' preparedness is a key determinant of the overall success of DRRM in educational settings (de la Cruz, 2020). These studies further suggest that when school leaders take an active role in promoting disaster risk reduction and are adequately prepared themselves, they are more likely to foster a culture of preparedness within their schools and ensure that their school communities are ready to face the challenges posed by disasters.

Conclusions

The study's conclusions highlight key insights from analyzing the preparedness of school heads to implement Disaster Risk Reduction and Management (DRRM) in schools in the Second Congressional Districts Division of Camarines Sur. These conclusions reflect the impact of various factors such as age, education, experience, and training on the overall effectiveness of DRRM strategies in schools. The findings underscore the importance of continuous training, adequate resources, and proactive leadership in enhancing disaster preparedness. School heads with more experience, both in leadership roles and in disaster management, exhibit higher levels of preparedness and more effective DRRM implementation. Their practical knowledge and established leadership capabilities significantly contribute to a school's ability to manage disasters effectively.

School heads with advanced educational qualifications, such as Master's and Doctorate degrees, tend to be more prepared for DRRM. Their formal education provides them with a deeper understanding of DRRM principles, which improves their strategic decision-making and disaster management capabilities. While many schools have basic disaster preparedness materials, a shortage of adequate resources—especially in rural or underfunded schools—was evident. This limits school heads' ability to implement comprehensive disaster management strategies, highlighting the need for a more equitable distribution of resources. The study concluded that inadequate training and capacity-building programs are a significant challenge in DRRM preparedness. School heads frequently report that existing training opportunities are insufficient or not tailored to their needs, particularly in specialized areas such as risk assessment and recovery strategies.

The recommendations in this chapter aim to address the gaps identified in the study and enhance the preparedness of school heads to implement Disaster Risk Reduction and Management (DRRM) strategies in schools within the Second Congressional Districts Division of Camarines Sur. These recommendations focus on improving training programs, resource allocation, leadership strategies, and community involvement to create a more disaster-resilient school environment. It is recommended that school heads receive specialized, ongoing training in risk assessment, hazard mapping, and advanced disaster response techniques. These training sessions should be tailored to address the unique needs and risks of different schools, ensuring that school heads have the expertise to develop effective DRRM strategies. School heads should foster stronger relationships with LGUs and other community stakeholders to ensure better coordination and resource sharing.

There is a need to ensure that schools, especially those in underfunded or rural areas, receive adequate resources to implement disaster risk management strategies. Government agencies and local authorities should prioritize equitable distribution of resources, including funding for infrastructure improvements, emergency supplies, and DRRM-related training for both staff and students. DRRM should be integrated into the school curriculum to ensure that students are educated about disaster risks and preparedness. School heads should take the lead in promoting DRRM education. They should work with teachers to incorporate disaster risk reduction into various subjects, promoting a culture of safety and preparedness among students. Furthermore, school heads should ensure that their schools' disaster management plans are regularly reviewed and updated to reflect the latest DRRM policies and best practices. Continuous professional development opportunities, as well as investments in disaster-resilient infrastructure, are essential in ensuring that schools remain safe, prepared, and capable of responding effectively to disasters.

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