

A Descriptive-Comparative Study on The Status and Level of Implementation of Disaster Risk Reduction and Management Program in Public Elementary Schools of Lingig II District, Surigao Del Sur Division: Perceptions of Teachers and Parents as Basis for A School Improvement Plan

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Abstract

This study assessed the implementation of the Disaster Risk Reduction and Management (DRRM) Program in public elementary schools in Lingig District, Surigao del Sur, as basis for a proposed School Improvement Plan. Anchored on Ludwig von Bertalanffy's Systems Theory, the study examined DRRM implementation in terms of disaster prevention and mitigation, disaster preparedness, disaster response, disaster recovery and rehabilitation, safe learning facilities and environment, school DRRM management, and DRRM integration in the curriculum. A quantitative descriptive-comparative research design was employed using adapted survey questionnaires administered to 120 respondents composed of 66 teachers and 54 parents during the School Year 2025–2026. Weighted mean, standard deviation, Independent Samples t-test, One-Way ANOVA, and Pearson Product-Moment Correlation Coefficient were utilized for data analysis. Findings revealed that the overall status of DRRM implementation was “Oftentimes Illustrated,” with disaster preparedness receiving the highest rating, while disaster recovery and rehabilitation obtained the lowest. The overall implementation level of the DRRM Program was “Always Manifested,” particularly in school DRRM management and safe learning facilities and environment. However, curriculum integration, psychosocial support, disaster financing, early warning systems, and long-term rehabilitation planning required further strengthening. Results further showed no significant difference between the perceptions of teachers and parents regarding DRRM implementation, indicating shared recognition of the schools' strengths and areas needing improvement. The study concluded that public elementary schools in Lingig District generally demonstrated strong DRRM implementation and institutional commitment to disaster preparedness and resilience. It recommended enhancing curriculum integration, strengthening recovery and rehabilitation planning, improving stakeholder collaboration, institutionalizing regular DRRM monitoring, and implementing the proposed School Improvement Plan to address identified gaps. The study supports Sustainable Development Goal (SDG) 4 on Quality Education by promoting safe and resilient learning environments, SDG 11 on Sustainable Cities and Communities through strengthened disaster preparedness, and SDG 13 on Climate Action by enhancing disaster resilience and adaptation strategies in schools. The sustainability impact of the study lies in strengthening educational, institutional, and community resilience through improved DRRM systems, stakeholder collaboration, and evidence-based planning that promote safer and more sustainable school communities.

Keywords: Climate Change Adaptation, Curriculum Integration, Disaster Preparedness, Disaster Recovery and Rehabilitation, Disaster Response, Disaster Risk Reduction and Management, School Improvement Plan, Safe Learning Environment, Stakeholder Perceptions, Systems Theory

1. Introduction

Disaster Risk Reduction and Management (DRRM) programs are essential in ensuring the safety, preparedness, and resilience of school communities against natural and human-induced hazards. However, the implementation of DRRM programs in public elementary schools continues to face challenges related to limited resources, inadequate infrastructure assessments, insufficient training, and weak institutional support (Escobar, 2021). International and local studies reveal inconsistencies in preparedness, response, and recovery mechanisms, highlighting the need for strengthened policy implementation, stakeholder participation, and curriculum integration (Tizon & Comighud, 2020; Kalogiannidis et al., 2022; Shah et al., 2020). In the Philippines, schools remain highly vulnerable due to the country's exposure to multiple hazards and gaps in disaster preparedness systems (World Economic Forum, 2018). Although several schools demonstrate effective DRRM implementation, challenges such as insufficient funding, limited personnel training, and weak organizational structures persist (“The Integration of Disaster Risk Reducti...”, 2022; Luminarias & Liquido, 2025). Despite growing literature on DRRM in educational institutions, limited studies examine the implementation of DRRM programs in public elementary schools within Lingig District, particularly from the perspectives of both teachers and

parents. Hence, this study assesses and compares stakeholder perceptions regarding DRRM implementation as basis for a proposed School Improvement Plan (SIP).

1.1 Background of the DRRM Program Implementation in Public Elementary Schools in Lingig District

The implementation of DRRM programs in schools is necessary to ensure institutional resilience and learner safety. However, many schools experience challenges in disaster prevention and mitigation due to inadequate infrastructure assessments, insufficient preparedness programs, and limited teacher training (Escobar, 2021). Although some schools exhibit strong disaster response capabilities, recovery and rehabilitation efforts remain constrained by unclear funding systems and weak long-term support mechanisms (Escobar, 2021; Tizon & Comighud, 2020). Globally, schools face similar DRRM concerns. In Indonesia, disaster preparedness is hindered by limited curriculum integration of disaster risk topics (Muzani et al., 2022). Greece emphasizes the importance of integrating disaster risk management into educational systems to strengthen resilience (Kalogiannidis et al., 2022). In Pakistan and Banda Aceh, weak implementation of DRRM measures and inadequate funding continue to increase school vulnerability to hazards such as floods and tsunamis (Sakurai et al., 2017; Shah et al., 2020). Likewise, Chile, India, and African Union member states continue to experience implementation gaps in national DRRM systems due to poor governance, insufficient technical capacity, and slow institutional response (Silva et al., 2024; Rao & Mohan, 2020; Ghosh & Sar, 2021; Otworu & Nyandiko, 2024). In the Philippine context, schools demonstrate varying levels of DRRM implementation. Universities and colleges in Central Luzon generally implement DRRM programs effectively, although gaps remain in aligning programs with institutional goals (Mendoza, 2025). Elementary schools in Santiago District exhibit strong implementation of safe learning facilities but limited realization of DRR education due to inadequate policies, personnel, and budgets (“Extent of Disaster Risk Reduction Manage...”, 2023). Public schools in Butuan City and Davao Oriental also report satisfactory DRRM integration and preparedness but continue to struggle with insufficient funding, training, and emergency resources (“The Integration of Disaster Risk Reducti...”, 2022; Dayanghirang & Baguio, 2025; Luminarias & Liquido, 2025). Despite these studies, there remains limited localized evidence regarding DRRM implementation in public elementary schools within Lingig District, particularly from the perspectives of teachers and parents. This gap highlights the need for context-specific assessments to support evidence-based school improvement initiatives.

1.2 Themes and Insights on Disaster Prevention, Preparedness, Response, and Recovery in School DRRM Programs

Studies consistently emphasize the importance of effective DRRM implementation in schools to improve preparedness, safety, and resilience. Schools with strong DRRM programs demonstrate higher levels of readiness and hazard response capability (Tizon & Comighud, 2020; Faelangca et al., 2024). Likewise, strong awareness among school leaders and stakeholder collaboration contribute significantly to effective DRRM implementation (Arcegono et al., 2024; Chen & Pel, 2021). Research on disaster prevention and mitigation highlights the importance of disaster education and curriculum integration. Disaster mitigation training improves knowledge and awareness among students and teachers (Efendi et al., 2024), while integrating DRRM into curricula positively shapes preventive attitudes and behaviors (Kalogiannidis et al., 2022). Programs such as the Safe School Program (SPAB) also enhance disaster literacy and evacuation preparedness. Disaster preparedness literature emphasizes infrastructure safety, emergency planning, and community participation. Safe school buildings, timely assessments, and hazard-sensitive infrastructure are necessary for minimizing disaster risks (Shah et al., 2020). Collaboration with local authorities, NGOs, and parents further strengthens preparedness and coordinated responses (Kamarudin, 2024). Teacher and student readiness also significantly influence preparedness levels (“Earthquake Disaster Preparedness Among T...”, 2023; Kosasih et al., 2025; Dayanghirang & Baguio, 2025). Studies on disaster response stress the need for clear evacuation systems, rapid crisis assessment, and efficient communication mechanisms (Wulandari et al., 2024; Kazanskaia, 2025). Meanwhile, disaster recovery and rehabilitation research highlights the importance of structured recovery systems, rehabilitation services, and organizational continuity plans in restoring community functionality after disasters (Soni, 2020; Amatya & Khan, 2023; Yıldır, 2024; Wahyuni et al., 2022). Literature on safe learning environments underscores the role of physical safety, psychological well-being, and supportive educational environments in promoting student development (Gupta & Verma, 2025; Putri & Hibana, 2024). Safe infrastructure, regular evaluations, and technology integration are also identified as essential factors in creating secure learning environments (“Analysis about Assessment Items of the E...”, 2024; Aldous & Ismail, 2024). Studies further reveal that integrating DRRM into curricula strengthens students’ understanding of hazards and preparedness through curricular and extracurricular activities (Kamarudin, 2024; Pambudi et al., 2025). Faculty support, teacher training, and contextualized learning materials significantly improve instructional quality and disaster awareness (Yanger, 2018; Atmojo & Rahmawati, 2025). Research also highlights the importance of stakeholder perceptions in evaluating DRRM effectiveness. Teachers frequently report inadequate DRRM training, while parents’ participation significantly influences school preparedness and resilience (Abregana, 2025; Pranata et al., 2022). Incorporating stakeholder feedback into school planning processes strengthens the relevance and responsiveness of DRRM initiatives (Amri et al., 2022; Yusuf et al., 2024).

1.3 Local, National, and Global Context of DRRM Implementation in Public Elementary Schools

Globally, educational institutions continue to face disaster-related risks caused by earthquakes, floods, droughts, tsunamis, and climate-related hazards (Rao & Mohan, 2020). Countries such as Indonesia, Pakistan, Greece, Chile, and India

experience persistent challenges in DRRM implementation, particularly in curriculum integration, infrastructure development, governance, and emergency response systems (Muzani et al., 2022; Shah et al., 2020; Kalogiannidis et al., 2022; Silva et al., 2024). The Sendai Framework for Disaster Risk Reduction also highlights the need for stronger institutional capacities and localized DRRM strategies (Ghosh & Sar, 2021; Otworu & Nyandiko, 2024). Nationally, the Philippines remains one of the world's most disaster-prone countries, ranking third globally in disaster risk with 60% of its land area exposed to multiple hazards and 74% of the population vulnerable to disaster impacts (World Economic Forum, 2018). Although DRRM initiatives are increasingly integrated into educational systems, schools continue to encounter problems related to limited budgets, insufficient training, inadequate emergency equipment, and weak organizational structures ("The Integration of Disaster Risk Reducti...", 2022; Luminarias & Liquido, 2025). Locally, public elementary schools in Lingig District face similar concerns regarding DRRM implementation. However, limited localized studies examining the perspectives of both teachers and parents hinder the development of context-specific interventions and responsive school improvement plans.

1.4 Systems Theory as Basis for Assessing DRRM Implementation and Stakeholder Perceptions

This study is anchored on Ludwig von Bertalanffy's Systems Theory, introduced in 1937 and expanded in the 1950s (Pouvreau, 2013). The theory explains that systems function as interconnected wholes in which components interact to influence overall performance (Sosa & Martínez, 2024). Concepts such as holism, synergy, homeostasis, and feedback loops emphasize the importance of coordination and continuous interaction among system components. Applied to the study, Systems Theory views DRRM implementation as an interconnected process involving school policies, DRRM structures, teacher competencies, parental involvement, and available resources. The Input-Process-Output framework illustrates how respondent profiles and DRRM components serve as inputs, data gathering and analysis function as processes, and findings and the proposed School Improvement Plan represent outputs. This perspective supports the identification of implementation gaps and the development of responsive and holistic DRRM strategies.

1.5 Research Gaps on DRRM Program Implementation and Stakeholder Perceptions in Lingig District

Existing literature extensively discusses DRRM implementation in schools across different countries and educational settings. However, most studies focus primarily on institutional assessments, preparedness levels, infrastructure, or curriculum integration, with limited attention given to comparative stakeholder perceptions. Moreover, localized studies involving public elementary schools in Lingig District remain scarce. Current research also reveals persistent issues such as inadequate teacher training, insufficient resources, weak organizational systems, and limited stakeholder involvement (Abregana, 2025; Luminarias & Liquido, 2025). While previous studies recommend strengthening DRRM integration and community collaboration, few investigations specifically compare the perceptions of teachers and parents regarding DRRM implementation. Therefore, this study seeks to address these gaps by examining and comparing the perceptions of teachers and parents concerning the implementation of DRRM programs in public elementary schools in Lingig District. The findings aim to provide evidence-based inputs for the development of a contextually responsive School Improvement Plan.

1.6 Alignment of the Study on DRRM Implementation with Relevant Sustainable Development Goals (SDGs)

This study aligns with several Sustainable Development Goals (SDGs). It supports SDG 4 – Quality Education by promoting safe, inclusive, and resilient learning environments through improved DRRM implementation in schools. The study also contributes to SDG 11 – Sustainable Cities and Communities by strengthening disaster preparedness, resilience, and risk reduction within local school communities. Additionally, the study relates to SDG 13 – Climate Action through its focus on disaster preparedness, mitigation, and resilience-building strategies in educational institutions. Strengthening DRRM systems in schools also supports SDG 17 – Partnerships for the Goals, as effective implementation requires collaboration among schools, parents, local government units, DRRM councils, and communities.

1.7 Importance of the Study on DRRM Implementation to Educational, Community, and Institutional Sustainability

The study contributes to socio-economic, educational, community, and institutional sustainability by strengthening disaster resilience in public elementary schools. Improved DRRM implementation enhances the continuity of education during disasters, protects learners and personnel, and promotes long-term community safety. Educational sustainability is supported through improved curriculum integration, teacher preparedness, and safe learning environments. Community sustainability is strengthened through active stakeholder participation and stronger school–community partnerships in disaster preparedness initiatives. Institutional sustainability is likewise promoted by providing evidence-based recommendations for policy enhancement, resource allocation, and strategic planning. Furthermore, the study contributes to policy and governance sustainability by assisting schools, local government units, and DRRM councils in developing coordinated and responsive disaster management strategies. Through the proposed School Improvement Plan, the study supports the creation of resilient educational institutions capable of adapting to disaster-related challenges while ensuring the safety and well-being of learners and communities.

2. Material and methods

2.1 Research Design

The study employed a quantitative research method that focused on collecting and analyzing numerical data to describe patterns, measure variables, and determine relationships among them. Quantitative research is systematic, objective, and structured, enabling researchers to draw reliable conclusions based on measurable evidence. This approach begins with clear hypotheses and identified variables that guide the research questions and define the relationships to be examined (Mweshi & Muhyila, 2024). Specifically, the study utilized a descriptive-comparative research design to determine the status and implementation level of the DRRM Program in public elementary schools in Lingig District, Surigao del Sur. The descriptive aspect provided an overview of the current implementation of DRRM across its thematic areas and indicators, while the comparative component examined significant differences in perceptions between teachers and parents. This design was considered appropriate for identifying implementation gaps and generating inputs for a School Improvement Plan. Furthermore, the descriptive-comparative approach combined detailed description and systematic comparison to achieve a deeper understanding of the phenomenon under study (Korsnes, 2024).

2.2 Locale of the Study

The study was conducted in the Caraga Region in northeastern Mindanao, an area frequently exposed to natural hazards such as flooding, landslides, and typhoons. The region's ongoing initiatives in disaster resilience and education made it a suitable setting for examining DRRM implementation in schools. Specifically, the research focused on the Province of Surigao del Sur, a coastal province vulnerable to various disaster risks due to its geographical location. The municipality of Lingig served as the primary area of investigation because of its vulnerability to disasters and active participation in community preparedness and educational initiatives. Data collection was conducted in public elementary schools within Lingig District, which provided relevant insights into preparedness, response, and recovery practices within the basic education sector.

2.3 Respondents of the Study

The respondents of the study consisted of public elementary school teachers and parents from Lingig District, Surigao del Sur during the School Year 2025–2026. Teachers were selected because their experiences and insights provided important information regarding DRRM practices, preparedness, and implementation challenges. Parents were also included because their perceptions contributed to evaluating the effectiveness of DRRM implementation and identifying areas that required improvement. The study involved a total of 120 respondents, composed of 66 teachers and 54 parents. These respondents provided comprehensive perspectives that supported the formulation of a School Improvement Plan based on the findings of the study.

2.4 Sample and Sampling Procedure

The study utilized respondents from selected public elementary schools in Lingig District, Surigao del Sur. A total of 120 participants, including teachers and parents, were involved in the study. The selection of respondents was based on their direct involvement and familiarity with the implementation of DRRM programs in schools, enabling them to provide relevant and reliable information regarding preparedness, prevention, response, recovery, and DRRM integration practices.

2.5 Research Instrument

The study utilized a structured survey questionnaire composed of two major parts. The first part employed an adapted questionnaire titled "Implementation of the Public Schools' Disaster Risk Reduction Management Program and Level of Capabilities to Respond" developed by Roselene Tabilon Tizon and Sheena Mae Trestiza Comighud. This instrument assessed the status of DRRM implementation in terms of disaster prevention and mitigation, disaster preparedness, disaster response, and disaster recovery and rehabilitation. The second part used an adapted instrument titled "Disaster Risk Reduction Management Implementation in the Public Elementary Schools of the Department of Education, Philippines" authored by Ronie Domingo Dela Cruz and Rashid Ceazar Galanto Ormilla. This instrument evaluated the implementation level of DRRM programs in terms of safe learning facilities and environment, school DRRM, and DRRM integration in the curriculum. The questionnaire employed a five-point Likert scale ranging from 1 to 5 to measure respondents' perceptions and levels of agreement. Descriptive interpretations ranged from very low to very high implementation and manifestation levels. These adapted instruments ensured comprehensive and reliable data collection aligned with the descriptive-comparative nature of the study.

2.6 Data Gathering Procedure

The data gathering process began with securing approval from the Schools Division Office of Surigao del Sur and the Office of the Public Schools District Supervisor of Lingig District. Upon approval, coordination with school heads of participating public elementary schools was conducted to arrange the distribution of questionnaires. Teachers and parents were oriented regarding the objectives of the study, the voluntary nature of participation, and the confidentiality of their responses. After the orientation, respondents were provided with the survey questionnaire. Sufficient time was allotted for

answering the instruments using either printed or digital formats, depending on accessibility. The accomplished questionnaires were collected immediately after completion or on an agreed schedule to ensure maximum retrieval. After collection, the responses were checked for completeness and encoded into statistical software for analysis. The gathered data then underwent appropriate statistical treatments aligned with the study's research problems and hypotheses.

2.7 Data Analysis Techniques

The gathered data were tallied, tabulated, and analyzed using appropriate statistical tools. Weighted mean and standard deviation were utilized to determine the status of DRRM implementation in terms of disaster prevention and mitigation, disaster preparedness, disaster response, and disaster recovery and rehabilitation. The same statistical measures were also applied in assessing the implementation level of DRRM programs in terms of safe learning facilities and environment, school DRRM, and DRRM integration in the curriculum. To determine significant differences between the perceptions of teachers and parents regarding the status and implementation level of the DRRM Program, the study employed the Independent Samples t-test for two-group comparisons and One-Way ANOVA for multiple-group comparisons. Furthermore, Pearson Product-Moment Correlation Coefficient was used to determine the strength and direction of the relationship between DRRM implementation and the perceptions of teachers and parents as basis for a School Improvement Plan.

3. Results and Discussion

3.1 Status of the Implementation of the DRRM Program in Public Elementary Schools

3.1.1 Disaster Prevention and Mitigation

The findings showed that disaster prevention and mitigation obtained an overall weighted mean of 3.83, interpreted as Oftentimes Illustrated. Increased disaster resiliency of infrastructure systems received the highest rating, followed by the integration of DRRM and climate change adaptation in policies, plans, and budgets. Community-based assessment and monitoring, environmental management, disaster financing, and early warning systems were also rated high, although financing and warning systems obtained the lowest means among the indicators. The results indicate that schools generally implement preventive and mitigation measures, particularly in strengthening infrastructure and integrating DRRM into planning processes. However, the lower ratings for disaster financing and early warning systems suggest the need for additional support and resource allocation to improve preparedness and hazard communication mechanisms within schools.

3.1.2 Disaster Preparedness

Disaster preparedness obtained the highest overall weighted mean of 4.20, interpreted as Always Illustrated. Strengthened partnership and coordination among stakeholders received the highest mean, followed closely by increased awareness and enhanced community capacity on hazards. Preparedness policies, infrastructure resiliency, and disaster coping skills were also rated highly by respondents. The findings suggest that preparedness is the strongest area of DRRM implementation among schools. The strong ratings for stakeholder coordination and awareness-building imply that schools prioritize collaborative preparedness activities and capacity development. The consistent implementation of preparedness plans and systems also reflects the schools' commitment to disaster readiness and resilience.

3.1.3 Disaster Response

The results revealed that disaster response obtained a weighted mean of 3.83, interpreted as Oftentimes Illustrated. Well-established disaster response and relief operations received the highest rating, followed by coordinated systems for early recovery. Temporary shelter provision, assessment of damages, evacuation procedures, and search and rescue capacities were also rated high. However, psychosocial support and basic social services obtained the lowest ratings among the indicators, although they were still interpreted as high. The findings indicate that schools generally implement disaster response mechanisms effectively, especially in response operations and recovery coordination. Nonetheless, the relatively lower ratings for psychosocial services and social support suggest the need for stronger intervention programs that address the emotional and social needs of affected learners and stakeholders during emergencies.

3.1.4 Disaster Recovery and Rehabilitation

Disaster recovery and rehabilitation obtained a weighted mean of 3.75, interpreted as Oftentimes Illustrated. Damage, loss, and needs assessment received the highest mean, while restoration of economic activities and psychosocial recovery were also rated high. Disaster-resilient infrastructure and mainstreaming of DRRM and climate change adaptation in human settlements obtained the lowest ratings among the indicators. The findings imply that schools generally practice recovery and rehabilitation measures after disasters. However, the lower ratings in mainstreaming DRRM and climate change adaptation into long-term rehabilitation and settlement planning indicate that these areas require greater attention to ensure sustainable and resilient post-disaster recovery systems.

3.1.5 Overall Status of DRRM Implementation

The overall status of DRRM implementation obtained a mean of 3.90, interpreted as Oftentimes Illustrated. Disaster preparedness emerged as the strongest area, while disaster recovery and rehabilitation received the lowest overall rating among the four thematic areas. Disaster prevention and mitigation and disaster response both received high implementation ratings. The findings suggest that schools in Lingig District generally implement DRRM measures effectively. However, recovery and rehabilitation efforts, disaster financing, psychosocial services, and early warning systems still require focused improvement to strengthen the overall DRRM framework of schools.

3.2 Implementation Level of the DRRM Program in Public Elementary Schools

3.2.1 Safe Learning Facilities and Environment

The implementation level of safe learning facilities and environment obtained a weighted mean of 4.20, interpreted as Always Manifested. The establishment of early warning systems received the highest rating, followed by the safekeeping of school records and learning materials. Temporary learning spaces, emergency hotlines, and evacuation plans were also rated highly, although posting of evacuation plans received the lowest rating among the indicators. The findings indicate that schools generally maintain safe learning environments and emergency mechanisms. The strong implementation of early warning systems and resource protection reflects schools' preparedness for disasters. However, improving the visibility and accessibility of evacuation plans and emergency information may further strengthen school safety practices.

3.2.2 School Disaster Risk Reduction Management

School Disaster Risk Reduction Management obtained the highest weighted mean of 4.29, interpreted as Always Manifested. Conducting rapid damage assessments and ensuring compliance with DepEd issuances received the highest ratings. Organizing DRRM teams, preparing reports, coordinating with local DRRM councils, monitoring interventions, and integrating DRRM into school programs were likewise rated very highly. Monitoring the effects of hazards and the use of schools as evacuation centers received the lowest mean but remained highly manifested. The findings demonstrate that school-level DRRM systems and management processes are strongly implemented. The high ratings in reporting, rapid assessment, and policy compliance indicate that schools actively practice organized DRRM management. The results further suggest that schools effectively coordinate disaster-related activities and maintain operational systems for preparedness and response.

3.2.3 DRRM Integration in the Curriculum

DRRM integration in the curriculum obtained a weighted mean of 4.14, interpreted as Oftentimes Manifested. Student-led risk identification and mapping activities received the highest mean, followed by DRRM capacity-building activities and disaster preparedness drills. Integration of DRRM into lesson plans, provision of teaching materials, and innovative DRRM advocacy plans obtained comparatively lower ratings, although all indicators remained highly manifested. The findings indicate that DRRM concepts are generally integrated into school instruction and activities. The strong implementation of drills and risk mapping activities reflects active learner participation in DRRM initiatives. However, curriculum integration through lesson planning, instructional materials, and innovative advocacy programs still requires enhancement to strengthen DRRM education in schools.

3.2.4 Overall Implementation Level of the DRRM Program

The overall implementation level of the DRRM Program obtained a mean of 4.21, interpreted as Always Manifested. School Disaster Risk Reduction Management received the highest overall rating, followed by Safe Learning Facilities and Environment. DRRM Integration in the Curriculum received the lowest mean among the three components, although it remained highly implemented. The results suggest that DRRM implementation in public elementary schools in Lingig District is generally strong, particularly in school management systems and safe learning environments. Nevertheless, curriculum integration remains an area that may still be strengthened to ensure more comprehensive DRRM education and advocacy among learners and school personnel.

3.3 Difference Between the Perceptions of Teachers and Parents

The findings revealed that the comparison between teachers and parents obtained a value of 1.12 with a p-value of 0.265, interpreted as Not Significant. Since the p-value exceeded the 0.05 level of significance, there was no significant difference between the perceptions of teachers and parents regarding the implementation of the DRRM Program. The results indicate that both teachers and parents share similar assessments of DRRM implementation in public elementary schools in Lingig District. This consistency in perceptions suggests common recognition of the strengths and areas needing improvement within the schools' DRRM practices. The acceptance of the null hypothesis further implies that the proposed School Improvement Plan may be developed based on shared priorities identified by both respondent groups.

3.4 Priority Areas for the Proposed School Improvement Plan

The findings identified several priority areas for strengthening DRRM implementation in schools. These include improving disaster risk financing and early warning systems, enhancing stakeholder coordination and preparedness capacity,

strengthening psychosocial support and emergency social services, integrating DRRM and climate change adaptation principles into rehabilitation planning, improving the visibility of evacuation plans and emergency hotlines, strengthening DRRM monitoring systems, and enhancing curriculum integration through contextualized teaching materials and teacher training. The identified priorities indicate that while schools generally demonstrate strong DRRM implementation, several areas still require enhancement to ensure more comprehensive and sustainable disaster resilience. The proposed strategies focus on strengthening coordination, preparedness, monitoring, curriculum integration, and recovery planning to support the development of a responsive and evidence-based School Improvement Plan for public elementary schools in Lingig District.

4. Conclusion & Recommendations

The study concluded that public elementary schools in Lingig II District demonstrated a strong level of DRRM program implementation, particularly in disaster preparedness, school DRRM management, and safe learning facilities. Schools generally maintained functional systems for preparedness, response coordination, and disaster resilience, reflecting institutional commitment to protecting learners, personnel, and school resources during emergencies. However, curriculum integration, recovery and rehabilitation planning, and long-term DRRM and climate change adaptation initiatives still required further strengthening. The findings also revealed that teachers and parents shared similar perceptions regarding DRRM implementation, indicating unified awareness and support for school-based disaster preparedness initiatives.

The study recommended strengthening recovery and rehabilitation planning by integrating DRRM and climate change adaptation into long-term school development strategies. Schools were encouraged to improve curriculum integration through contextualized lesson planning, development of instructional materials, and learner-centered preparedness activities. Greater collaboration among schools, local government units, and community stakeholders was also recommended to enhance early warning systems, disaster financing access, and psychosocial support services. Furthermore, regular monitoring and evaluation of DRRM implementation should be institutionalized to sustain continuous improvement in preparedness, response efficiency, and infrastructure resilience, while the proposed School Improvement Plan may be implemented to address identified gaps in DRRM program execution.

The study was limited to public elementary schools in Lingig II District, Surigao del Sur Division during the School Year 2025–2026, focusing only on the perceptions of teachers and parents regarding the implementation of the DRRM Program. The findings were confined to the thematic areas of disaster prevention and mitigation, preparedness, response, recovery and rehabilitation, safe learning facilities and environment, school DRRM management, and curriculum integration. Since the study utilized a descriptive-comparative design and survey questionnaires, the results depended primarily on the honesty and accuracy of respondents' perceptions and may not fully represent DRRM implementation in other districts or educational contexts.

Compliance with ethical standards

The study adhered to ethical research practices throughout the data gathering process. Approval to conduct the study was secured from the Schools Division Office of Surigao del Sur and the Office of the Public Schools District Supervisor of Lingig District prior to data collection. Respondents were informed about the objectives of the study, the voluntary nature of their participation, and the confidentiality of their responses. Data collection procedures were conducted in accordance with the approved research process to ensure the protection and privacy of participants.

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