

The Effectiveness of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program in the Public Secondary Schools in the Division of Camarines Sur

Arnulfo C. Seprioto¹

¹Doctor of Education, University of Northeastern Philippines, Iriga City, Philippines

ARTICLE INFORMATION	ABSTRACT
Article history: Published: October 2026	This study determined the effectiveness of the implementation of the Disaster Risk Reduction and Management (DRRM) Program in the public secondary schools in the Division of Camarines Sur for School Year 2025–2026. Specifically, it assessed the extent of program implementation, the capabilities of school heads, the effectiveness of implementation, and the constraints encountered, including the degree of agreement on their rank orders. It formulated an action plan based on the findings. The study employed descriptive-evaluative-correlational research design with 238 respondents. Data were analyzed using Frequency Count, Weighted Mean, Percentage, Rank, and Kendall's Coefficient of Concordance (W). Findings showed that the DRRM Program was Much Implemented, with Contingency Plans obtaining the highest rating (4.39), followed by Training and Capacity Building and Access to DRRM Information (both 4.38). School heads were assessed as Much Capable, with Learner Safety and Child Protection receiving the highest rating (4.59). The implementation of the DRRM Program was found to be Much Effective, particularly in Learners' Disaster Awareness and Behavior Change (4.52) and Timeliness of Emergency Response Actions (4.50). However, constraints were rated Much Serious, with insufficient budget for DRRM activities, inadequate disaster preparedness facilities, and lack of emergency response equipment identified among the leading concerns. Significant agreements were found in several rank-order assessments, while exceptions were noted in selected indicators. An action plan was formulated to strengthen DRRM implementation. The study recommends sustaining effective practices, strengthening leadership and capacity-building programs, improving emergency response systems, addressing resource constraints, and developing targeted, evidence-based DRRM interventions and policies.
Keywords: Disaster Risk Reduction and Management (DRRM) Program Public Secondary Schools Division of Camarines Sur	

1. Introduction

Disasters, both natural and human-induced, have become increasingly frequent and devastating worldwide, threatening lives and disrupting the continuity of education. Thus, education systems are encouraged to integrate disaster preparedness into school governance and develop resilient, risk-informed, and inclusive learning environments. This is consistent with international frameworks such as the Sustainable Development Goals (SDGs) and Education for All (EFA), which emphasize the safety and well-being of learners and school personnel.

In the Philippines, the 1987 Philippine Constitution, under Article II, Section 15, provides for the protection and promotion of the people's right to health, while Section 17 gives priority to education, science and technology, arts, culture, and sports to promote total human development. These provisions emphasize that education should address learners' mental, emotional, physical, and social well-being, including safety, preparedness, and disaster resilience.

The Philippine Disaster Risk Reduction and Management (DRRM) framework is aligned with the Sendai Framework, which emphasizes understanding disaster risk, strengthening disaster risk governance, investing in resilience, and building back better. The country initially relied on Presidential Decree No. 1566 but shifted from a reactive to a proactive approach through Republic Act No. 10121, or the Philippine Disaster Risk Reduction and Management Act of 2010. The law institutionalizes DRRM at all levels and requires schools to implement measures on preparedness, mitigation, response, and recovery, relevant laws include Republic Act No. 10533, or the Enhanced Basic Education Act of 2013, which promotes a relevant, responsive, and inclusive curriculum, and Republic Act No. 9155, or the Governance of Basic Education Act of 2001, which empowers school heads to improve learning conditions, including school safety.

The Department of Education (DepEd) has likewise strengthened DRRM through DepEd Order No. 50, s. 2011, which established the DRRM Office; DepEd Order No. 21, s. 2015, which provides DRRM Coordination and Information Management Protocols; and DepEd Order No. 37, s. 2015, which introduced the Comprehensive DRRM in Basic Education Framework. In August 2021, DepEd also mandated schools to designate a School DRRM Coordinator. More recently, DepEd Order No. 22, s. 2024 provides guidelines

on class suspension during disasters to protect learners and personnel while supporting learning continuity, while DepEd Order No. 49, s. 2022 emphasizes professionalism in education services, including crisis response and DRRM initiatives.

The National Competency-Based Teacher Standards (NCBTS) and the Philippine Professional Standards for Teachers (PPST) recognize teachers' roles in maintaining safe and supportive learning environments, responding to emergencies, and contributing to school-wide preparedness. Similarly, the Basic Education Sector Reform Agenda (BESRA), School First Initiative (SFI), Continuous Improvement Program (CIP), and School-Based Management (SBM) promote participatory, localized, and evidence-based approaches to addressing school needs, including disaster risks.

The public secondary schools of the Division of Camarines Sur, DRRM implementation is particularly important because of the province's vulnerability to hazards. The capacity of schools to prepare for, respond to, and recover from disasters directly affects learner safety, learning continuity, and community resilience. The Division has demonstrated its commitment to learner-centered governance through programs such as K to 12, Brigada Eskwela, Adopt-a-School, Learners Convergence 2025, Learning Recovery Plan, WASH in Schools (WinS), Project 3STAR Awards, AquaTower Project, and School Inside a Garden (SIGA). These initiatives have strengthened community partnerships, health and sanitation, environmental awareness, resource mobilization, and learner development.

The Division has also demonstrated innovation and responsiveness during disruptions, particularly during the COVID-19 pandemic, through modular, online, radio-based, and blended learning modalities, localized learning materials, and capacity-building activities. Its participation in the MATATAG Agenda and DepEd Region V's "6B Bawat Batang Bicolano Bihasang Bumasa at Bumilang" initiative further supports inclusive and contextualized learning.

In disaster preparedness and school safety, the Division of Camarines Sur has implemented DRRM programs through functional DRRM committees, regular earthquake and fire drills, classroom-based risk awareness, and coordination with local DRRM councils. These efforts have strengthened school leaders' and DRRM coordinators' capacities in risk assessment, emergency planning, and resource management.

Related studies further emphasize the importance of effective DRRM implementation. Reyes (2022) found that organized DRRM committees, regular drills, and hazard-specific protocols improved safety and response times. Dela Cruz (2021) emphasized sustained DRRM training to enhance teacher preparedness. Santos (2023) reported that while many schools have evacuation areas, gaps remain in reinforced structures and early warning systems. Gomez (2022) highlighted the importance of school-community and local government partnerships in strengthening preparedness. Lopez (2024) found that DRRM-integrated lessons improved learners' hazard awareness and participation in preparedness activities. Collectively, these studies support the need for a comprehensive assessment of DRRM implementation and preparedness capacity.

This study, therefore, aimed to determine the effectiveness of the implementation of the DRRM Program and the preparedness capabilities of public secondary schools in the Division of Camarines Sur. It examined how policies, infrastructure, training, stakeholder coordination, and awareness contribute to preparedness and resilience. It also identified strengths and shortcomings in existing DRRM programs to provide insights for improving policies, strategies, and interventions at the school, division, and regional levels. Ultimately, the study seeks to contribute to creating safer, more resilient learning environments where learners are protected and able to continue their education.

1.1 Statement of the Problem

This study determined the effectiveness of the implementation of the Disaster Risk Reduction and Management (DRRM) Program in the public secondary schools in the Division of Camarines Sur for School Year 2025-2026. Specifically, it sought answers to the following questions:

1. To what extent is the level of the implementation of the Disaster Risk Reduction and Management (DRRM) Program along:

1.1 Basic Concepts and Objectives of DRRM,

1.2 Curriculum Integration,

1.3 Contingency Plans,

1.4 Risk Assessment,

1.5 Stakeholder Involvement,

1.6 Training and Capacity Building, and

1.7 Access to DRRM Information?

2. How significant is the agreement on the rank orders of the extent of the level of the implementation of the Disaster Risk Reduction and Management (DRRM) Program along the aforementioned aspects?

3. To what extent were the capabilities of the school heads in the implementation of the Disaster Risk Reduction and Management (DRRM) Program in terms of:

3.1 Roles and Responsibilities in DRRM,

3.2 Leadership and Decision-Making During Emergencies,

3.3 Infrastructure and Facilities,

3.4 Emergency Supplies and Resources Management,

3.5 Early Warning and Evacuation Systems,

3.6 Disaster Preparedness Activities, and

3.7 Learner Safety and Child Protection?

4. How significant is the agreement on the rank orders of the extent of the capabilities of the school heads in the implementation of the Disaster Risk Reduction and Management (DRRM) Program among the different congressional districts?

5. To what extent is the effectiveness of the implementation of the Disaster Risk Reduction and Management (DRRM) Program in terms of:

5.1 Reduction of Disaster-Related Incidents,

- 5.2 Continuity of Learning and School Operations,
- 5.3 Learners' Disaster Awareness and Behavior Change,
- 5.4 Timeliness of Emergency Response Actions,
- 5.5 School Leadership and DRRM Governance,
- 5.6 Sustainability of DRRM Practices, and
- 5.7 Post-Disaster Recovery Outcomes?
6. How significant is the agreement on the rank orders of the effectiveness of the implementation of the Disaster Risk Reduction and Management (DRRM) Program along the aforementioned aspects?
7. What constraints were encountered in the implementation of the Disaster Risk Reduction and Management (DRRM) Program?
8. How significant is the agreement on the rank orders of the constraints encountered in the implementation of the Disaster Risk Reduction and Management (DRRM) Program among the different congressional districts?
9. What action plan can be formulated based from the findings of the study?

1.2 Assumptions of the Study

The study was anchored on the following assumptions:

1. The extent of the level of the implementation of the Disaster Risk Reduction and Management (DRRM) Program along Basic Concepts and Objectives of DRRM, Curriculum Integration, Contingency Plans, Risk Assessment, Stakeholder Involvement, Training and Capacity Building, and Access to DRRM Information can be determined.
2. The extent of the capabilities of the school heads in the implementation of the Disaster Risk Reduction and Management (DRRM) Program in terms of Roles and Responsibilities in DRRM, Leadership and Decision-Making During Emergencies, Infrastructure and Facilities, Emergency Supplies and Resources Management, Early Warning and Evacuation Systems, Disaster Preparedness Activities, and Learner Safety and Child Protection can be assessed.
3. The extent of the effectiveness of the implementation of the Disaster Risk Reduction and Management (DRRM) Program in terms of Reduction of Disaster-Related Incidents, Continuity of Learning and School Operations, Learners' Disaster Awareness and Behavior Change, Timeliness of Emergency Response Actions, School Leadership and DRRM Governance, Sustainability of DRRM Practices, and Post-Disaster Recovery Outcomes can be identified.
4. The constraints encountered in the implementation of the Disaster Risk Reduction and Management (DRRM) Program can be evaluated.
5. The action plan can be formulated based from the findings of the study.

1.3 Hypotheses of the Study

This study tested these hypotheses:

1. There is a significant agreement on the rank orders of the extent of the level of the implementation of the Disaster Risk Reduction and Management (DRRM) Program.
2. There is a significant agreement on the rank orders of the extent of the capabilities of the school heads employed in the implementation of the Disaster Risk Reduction and Management (DRRM) Program.
3. There is a significant agreement on the rank orders of the extent of the effectiveness of the implementation of the Disaster Risk Reduction and Management (DRRM) Program.
4. There is a significant agreement on the rank orders of the constraints encountered in the implementation of the Disaster Risk Reduction and Management (DRRM) Program.

2. Literature Review

2.1 Implementation of DRRM Program

Balanggoy, H. K. (2024) evaluated the implementation of the four thematic areas of DRRM in secondary public schools in Benguet and identified variations, challenges, and training needs. The findings showed high implementation in disaster prevention and mitigation, preparedness, recovery, and rehabilitation, while disaster response needed improvement. Concerns included insufficient budget, multiple tasks assigned to DRRM coordinators, and inadequate parental support, highlighting the need for collaboration with government agencies and the private sector. The present study is similar in its focus on DRRM implementation in public secondary schools but differs in scope and focus. Lavilles, H., & Hordista, A. (2024) examined teachers' and administrators' awareness of natural and man-made disasters, their preparedness, and DRRM implementation. Results showed high awareness, preparedness, and implementation, with significant relationships between recognizer awareness, preparedness, and DRRM implementation. Both studies examine DRRM and preparedness in education and recognize the roles of teachers and administrators. However, the present study focuses on the effectiveness of DRRM implementation and preparedness capabilities of public secondary schools, while Lavilles and Hordista focused on awareness and preparedness of teachers and administrators.

Alarte, T. (2024) determined DRRM implementation and compliance in selected public schools in Tanay, Rizal. DRRM measures were widely implemented across prevention and mitigation, preparedness, response, and recovery and rehabilitation, and schools complied with the Comprehensive School Safety pillars. No significant difference was found in implementation by school type, although schools offering inclusive education programs showed higher compliance in School Disaster Management and Risk Reduction and Resilience Education. Unlike Alarte's focus on compliance with standards, the present study examines implementation effectiveness and preparedness capabilities. Pojas, L. (2024) assessed the impact of the school DRRM program in public schools in Angono, Rizal, as a basis for an enhanced contingency plan. Teaching personnel and SH/DRRMC/NTP respondents strongly agreed on the impact of prevention and mitigation, preparedness, response, and recovery and rehabilitation, while PTA officers agreed. Challenges were also strongly recognized, and relationships were found between DRRM impacts and challenges. Both studies examine DRRM and school preparedness, but Pojas focused on developing an enhanced contingency plan.

Morante, A., & Cerado, E. (2025) investigated the relationship between DRRM implementation and disaster preparedness knowledge and readiness of high school students in SOCCSKSARGEN. Using the Social-Ecological Systems Framework and Rogers' Diffusion of Innovations Theory, the study found very high DRRM implementation, average preparedness knowledge, and very satisfactory disaster readiness. Both studies emphasize DRRM as a means of strengthening safety and resilience but differ in scope and respondents.

2.2 Capabilities

Salita et al. (2021) measured disaster preparedness among teachers in Angeles City using the Extended Parallel Process Model. Many respondents demonstrated danger-control responses, although fear-control responses were also observed. Teachers generally showed positive attitudes and intentions toward preparedness but lacked sufficient motivation because of low perceived threat. Both studies examine disaster preparedness in education using quantitative approaches, but differ in scope and focus.

Aquino et al. (2021) examined disaster risks and adaptation strategies in eight medium public elementary schools in Licab District, Nueva Ecija. Respondents were aware of flood and typhoon risks, understood warning signals, maintained records, followed evacuation plans, and participated in drills and disaster-related activities. Both studies emphasize preparedness and strategic planning, but Aquino et al. focused on risks and adaptation strategies in elementary schools, while the present study evaluates DRRM implementation and preparedness in secondary schools.

Galang et al. (2025) assessed disaster preparedness and awareness among Grade 6 learners in public elementary schools in Cabuyao. Learners demonstrated strong understanding of disaster response, but interventions were needed in mitigation and recovery through practical activities, simulations, and improved recovery education. Both studies address school disaster preparedness, but Galang et al. focused on elementary learners, whereas the present study examines institutional effectiveness and preparedness capabilities of public secondary schools.

Rico, J. J. (2022) assessed disaster preparedness and resiliency among 23 island school-communities in Concepcion, Iloilo. The schools were found highly prepared and highly resilient. Both studies emphasize readiness and resilience, but Rico focused on island school-communities with distinct geographic challenges, whereas the present study evaluates DRRM implementation and preparedness capabilities in public secondary schools in Camarines Sur.

Dollentas, J. A. T., & Gamba, M. N. (2025) examined the knowledge and skills of School DRRM Coordinators in Irosin District 1, Sorsogon. Results varied across DRRM modules, with some areas rated outstanding or very satisfactory and others satisfactory, fairly satisfactory, or below expectations. Both studies emphasize the role of schools in strengthening preparedness through DRRM programs, but the present study assesses overall institutional preparedness capabilities, while Dollentas and Gamba focus on DRRM Coordinators' knowledge and skills.

Arcegon et al. (2024) assessed disaster risk reduction awareness in selected secondary schools in Northern Puerto Princesa City. Respondents showed high awareness, while recommendations included budget allocation, student-led hazard mapping, and collaboration with LGUs and NGOs. Both studies focus on disaster preparedness in secondary schools, but Arcegon et al. emphasized awareness, while the present study evaluates DRRM implementation effectiveness and institutional preparedness.

, R. R. (2024) examined awareness and preparedness for natural disasters among high school students in public secondary schools in Eastern Philippines. Students were highly aware but moderately prepared before, during, and after disasters, with a significant relationship between awareness and preparedness. Both studies highlight disaster readiness, but Calamba focused on students' individual awareness and preparedness, while the present study examines school-level DRRM implementation and preparedness capabilities.

(2025) explored students' understanding of climate change vulnerability and DRRM in selected secondary schools in the Philippines. Findings revealed knowledge gaps in adaptation and mitigation strategies. The study recommended enhanced curriculum modules, interactive tools, teacher training, and disaster simulations. Both studies emphasize disaster preparedness in secondary schools, although their focus and scope differ.

Baldomar, M. L. C. (2024) investigated learners' awareness and preparedness regarding school suspension protocols during natural disasters in Taft National High School. The study emphasized collaboration with parents and LGUs and the integration of DRRM education into the curriculum. Both studies highlight disaster readiness, but Baldomar focused on learner preparedness during suspension events, whereas the present study examines institutional implementation and school-wide preparedness systems.

Cruz, R. D. D., & Ormilla, R. C. G. (2022) evaluated DRRM implementation in public elementary schools in Alfonso Lista, Ifugao. The schools implemented safe learning facilities, school-based DRRM, and curriculum integration. Personnel were aware of DRRM, and preparedness was significantly associated with safe facilities, school risk reduction management, and curriculum integration. Both studies assess DRRM and preparedness, but Cruz and Ormilla focused on public elementary schools, while the present study focuses on public secondary schools.

2.3 Studies on Effectiveness

Catarata, A. T., & Villa, E. B. (2024) assessed DRRM implementation and stakeholder participation in the Third District of Negros Oriental to develop a community-based DRRM strategic manual. The study found stronger performance in disaster prevention than rehabilitation and recovery, with insufficient expertise, resources, and stakeholder collaboration identified as concerns. Both studies examine DRRM implementation and preparedness, but differ in setting and scope.

Nadal, A. J. F. (2024) examined relationships among teachers' knowledge, skills, attitudes, school profiles, and DRRM implementation in 48 schools. Significant relationships were found between teachers' attitudes, enrollment profile, and the implementation of the three pillars of Comprehensive DRRM in Basic Education. Both studies recognize teachers and schools as important to effective DRRM implementation, but differ in variables and scope.

Mendoza, K. J. A. (2025) investigated DRRM implementation in local universities and colleges in Central Luzon using the 5Ps: philosophy, policies, programs, practices, and processes. The 5Ps were evident, while the four thematic areas were implemented. Strong positive relationships were found between the 5Ps and DRRM implementation, particularly between processes, programs,

and implementation. Both studies recognize DRRM as a comprehensive framework for safety and resilience but differ in educational setting and variables.

Studies on Constraints

Pandapatan, M. A. (2024) assessed DRRM implementation in selected public schools during the COVID-19 pandemic. Schools adhered to national DRRM Council standards and DepEd policies covering prevention and mitigation, preparedness, response, and rehabilitation and recovery. The study recommended maximizing implementation across the four areas. Both studies examine school-based DRRM implementation and preparedness, although they differ in context and emphasis.

Amil, A. C. (2024) conducted a systematic review of collaborative governance mechanisms in Philippine DRRM. Findings emphasized multi-stakeholder participation, shared objectives, transparency, and indicators for evaluating effectiveness, while communication gaps and organizational silos were identified as barriers. Both studies recognize stakeholder cooperation as essential to disaster readiness, but the present study is school-centered while Amil focused on collaborative governance mechanisms nationwide.

2.4 Action Plan

Briones et al. (2024) assessed SDRRM coordination and disaster response capabilities in high-risk schools in the Fourth Congressional District of Quezon. Coordination was generally moderate, with strengths in preparedness, response, and recovery, while prevention and mitigation needed improvement. Schools were moderately capable in human resources, facilities, and innovation. Both studies address school disaster readiness, but the present study evaluates overall DRRM implementation effectiveness, whereas Briones et al. focused on SDRRM coordination and response capabilities.

De la Cruz, M. L. L. (2023) examined the DepEd School Disaster Risk Reduction and Management Program (SDRRMP) among DRRM coordinators, physical facilities coordinators, and school heads. Capabilities and implementation across human resources, facilities, knowledge and education, policies, plans, prevention and mitigation, preparedness, response, and rehabilitation were moderately implemented. Major challenges included inadequate training, lack of inventory, building and infrastructure risks, insufficient resources, unclear funding, and limited parental engagement. Both studies address school-based disaster preparedness, but the present study evaluates schoolwide effectiveness, while De la Cruz focused on key program implementers.

Sangil, I. C. K. (2025) explored disaster preparedness from the perspective of SPED teachers in Davao del Sur using a phenomenological approach. Findings identified limitations in facilities and equipment, emotional concerns, and challenges involving SPED learners that may hinder evacuation. Both studies emphasize school safety and resilience, but the present study evaluates DRRM implementation and preparedness capabilities of public secondary schools, while Sangil focused specifically on SPED teachers and learners.

Dignadice, J. L. (2024) assessed DRRM implementation and activities in the Division of Sultan Kudarat, focusing on good governance, risk assessment, early warning, knowledge building, and awareness raising. These areas were found to be highly evident. Both studies examine school-based DRRM implementation, although the present study focuses on effectiveness and preparedness capabilities in Camarines Sur, while Dignadice examined specific DRRM practices in Sultan Kudarat.

Distor, M. (2025) examined the effects of DRRM decentralization in the Ilocos Region, particularly post-typhoon rehabilitation and recovery under Republic Act No. 10121. Findings showed that imbalances in administrative, political, and fiscal dimensions limited the effectiveness of decentralized policies, with weak fiscal mechanisms contributing to inequalities. The present study focuses on DRRM implementation and preparedness capabilities in public secondary schools in Camarines Sur, while Distor examined decentralized DRRM at the broader regional level.

2.5 Synthesis of the State-of-the-Art

The studies on the Implementation of DRRM Program were those of: Balanggoy, H. K. (2024) evaluated the implementation of the four thematic areas of disaster risk reduction and management (DRRM) in the Secondary Public Schools located in the Province of Benguet Philippines; Lavilles, H., & Hordista, A. (2024) determined the level of awareness of the teachers and administrators in natural and man-made disasters as well as their level of preparation and implementation of the DRRM Program; Alarte, T. (2024) determined the level of DRRM implementation and compliance in selected public schools in Tanay Sub-Office, Schools Division Office of Rizal; Pojas, L. (2024) determined the impact of school disaster risk reduction and management program in public schools in Angono, Rizal for school year 2023-2024 which served as basis to develop an enhanced contingency plan; and, Morante, A., & Cerado, E. (2025) investigated the relationship between the Disaster Risk Reduction and Management (DRRM) Program Implementation and Disaster Preparedness Knowledge and Readiness of High School Students in the SOCCSKSARGEN Region. While studies on the Capabilities were analyzed by: Salita et al., (2021) measured the disaster preparedness among teachers of Angeles City, Philippines, using a questionnaire designed using the extended parallel process model (EPPM); Aquino et al., (2021) determined the risks and adaptation strategies for disaster readiness as a basis for the school sustainability plan of eight (8) medium public elementary schools in Licab District, Nueva Ecija; Galang et al., (2025) assessed the level of preparedness and awareness of the elementary learners towards the Disaster Risk Reduction Management of public elementary schools in the Division of Cabuyao during the School-Year 2024-2025; Rico, J. J. (2022) ascertained the level of preparedness and resiliency in disaster management among the twenty - three (23) island schools-communities in the Municipality of Concepcion, Province of Iloilo, Philippines; , Dollentas, J. A. T., & Gamba, M. N. (2025) investigated the knowledge and skills of School DRRM Coordinators in Irosin District 1, Irosin, Sorsogon; Arcegonio et al., (2024) determined the disaster risk reduction awareness in selected secondary schools, aiming to mitigate current risks and enhance the resilience of vulnerable institutions in Northern Puerto Princesa City, Philippines; Calamba, R. R. (2024) determined the level of awareness and preparedness for natural disasters among high school students in the public secondary school of Eastern Philippines; Vidal, (2025) explored students' understanding of climate change vulnerability and disaster risk management in selected secondary schools in the Philippines; Baldomar, M. L. C. (2024) investigated the awareness and preparedness of learners at Taft National High School; and, Cruz, R. D. D., & Ormilla, R. C. G. (2022) evaluated

the implementation of the Disaster Risk Reduction Management (DRRM) program in terms of disaster planning awareness and preparedness. Additionally, the Studies on Effectiveness were those of: Catarata, A. T., & Villa, E. B. (2024) assessed the extent of implementation of Disaster Risk Reduction Management (DRRM); Nadal, A. J. F. (2024) sought to establish significant relationships between the knowledge, skills, and attitudes of the teacher respondents; and, Mendoza, K. J. A. (2025) investigated DRRM among local universities and colleges (LUCs) in Central Luzon, Philippines.

While studies on Constraints were those of: Pandapatan, M. A. (2024) assessed the implementation of disaster risk reduction and management (DRRM) by selected public schools during the COVID-19 pandemic; and, Amil, A. C. (2024) conducted a systematic review of collaborative governance mechanisms in disaster risk reduction and management (DRRM) in the Philippines.

Moreover, the studies on Action Plans were those of: Briones et. Al., (2024) determined the level of coordination of the SDRRM Coordinators and the level of capabilities in disaster response of the high-risk schools; De la Cruz, M. L. L. (2023) focused on the program initiated by the Department of Education, the SDRRMP; Sangil, I. C. K. (2025) explored disaster preparedness in schools from the perspective of Special Education (SPED); Dignadice, J. L. (2024) assessed the Implementation of the Disaster Risk Reduction and Management (DRRM) Program and Activities; and, Distor, M. (2025) examined the effects of decentralizing disaster risk reduction and management in the Philippines.

2.6 Gap Bridged by the Study

The present study bridges the gap in existing literature by focusing on the effectiveness of the implementation of the Disaster Risk Reduction and Management (DRRM) Program and the preparedness capabilities of public secondary schools in the Division of Camarines Sur. While previous studies have explored various aspects of DRRM such as coordination among school DRRM coordinators, perspectives of SPED teachers, program components, and even the effects of decentralization at the regional level, limited attention has been given to assessing both the overall effectiveness of DRRM implementation and the actual preparedness of secondary schools within a specific division.

2.7 Theoretical Framework of the Study

This study was anchored on Protection Motivation Theory, (Rogers, 1975); Theory of Planned Behavior, (Ajzen, 1991); Crisis and Disaster Management Theory, (Fink, 1986); Organizational Preparedness Theory, (Weick & Sutcliffe, 2001); and Resilience Theory, (Holling, 1973) shown in Figure 2. Protection Motivation Theory, (Rogers, 1975). It emphasizes how individuals assess threats and make decisions to protect themselves based on perceived severity, vulnerability, and coping mechanisms. In the context of DRRM, this theory is highly relevant because both teachers and students constantly evaluate the risks posed by natural disasters such as typhoons, earthquakes, and floods. Their willingness to engage in preparedness activities—like evacuation drills, hazard mapping, and emergency kit preparation—is influenced by how serious they think the threat is and whether they believe they can effectively respond to it.

The implication of PMT in this study is that the effectiveness of DRRM programs can be measured not only by the availability of plans and policies but also by the perceptions and motivations of the school community. By anchoring the study on this theory, researchers can assess whether schools are able to instill a sense of urgency and confidence in disaster preparedness. This can guide program implementers to design DRRM strategies that build both awareness and coping capacity, thereby improving preparedness capabilities. Theory of Planned Behavior, (Ajzen, 1991). It asserts that an individual's actions are influenced by attitudes toward the behavior, social norms, and perceived behavioral control. In the school setting, this means that teachers' and students' adherence to disaster protocols depends on their belief in the importance of preparedness, the expectations from peers and administrators, and their confidence in successfully carrying out the required actions during emergencies. For example, if students believe evacuation drills are meaningful, if teachers reinforce their importance, and if learners feel capable of performing them correctly, then preparedness levels improve. For the present study, TPB provides a framework for understanding why some schools may be more prepared than others despite having the same DRRM program in place. It highlights the role of attitudes, collective culture, and perceived ability in shaping effective disaster responses. The implication is that evaluating preparedness should go beyond material resources; it should also consider behavioral intentions and perceptions within the school community. This guides the study in assessing not only structural readiness but also behavioral preparedness.

Crisis and Disaster Management Theory, (Fink, 1986). It explains the stages of managing disasters: prodromal (early warning signs), acute (the occurrence of the disaster), chronic (aftermath and coping), and resolution (return to normalcy). This theory directly applies to DRRM in schools because it provides a structured way of examining whether institutions are prepared before disasters, responsive during emergencies, and resilient afterward. By analyzing DRRM implementation using these stages, schools can determine if their systems are proactive rather than reactive.

Its implication for the study is significant because it guides the evaluation of preparedness capabilities across different phases of disaster management. Schools should not only focus on immediate response but also on long-term recovery and learning continuity. By anchoring the research on this theory, the study can assess whether the DRRM program being implemented is holistic—covering prevention, response, and rehabilitation. This ensures that preparedness is understood as a continuous process, not a one-time activity. Organizational Preparedness Theory, (Weick & Sutcliffe, 2001). It emphasizes high reliability and mindfulness in institutions, especially those handling complex and risky environments. Applied to DRRM, this theory suggests that schools must build a culture of readiness where teachers, students, and administrators are trained to anticipate risks, learn from past experiences, and remain vigilant in identifying possible hazards. It highlights the role of leadership and organizational systems in ensuring preparedness becomes part of the school's daily practices.

For this study, the implication is that preparedness is not merely the result of one-time drills or compliance with DepEd orders but the outcome of a systematic culture of safety embedded in the school environment. By anchoring on this theory, the research evaluates how well schools institutionalize disaster preparedness and whether their DRRM programs encourage vigilance and accountability at all levels. This guides the study in identifying strengths and weaknesses in organizational practices related to

disaster risk reduction. Resilience Theory, (Holling, 1973). It centers on the ability of individuals, communities, and systems to absorb disturbances, adapt, and recover after disruptions. In the case of DRRM, this theory emphasizes that schools should not only be prepared for disasters but also be capable of bouncing back quickly to restore learning and safeguard the well-being of learners and staff. It highlights adaptability, resourcefulness, and flexibility as key components of disaster preparedness.

The implication of this theory in the study is that evaluating preparedness should include the capacity of schools to continue functioning after disasters. Anchoring the research on resilience helps determine whether public secondary schools in Camarines Sur can sustain learning and support their students during recovery periods.

Researcher's Theory. The researcher came out with his theory that analyzing the effectiveness of the implementation of the Disaster Risk Reduction and Management (DRRM) Program in the public secondary schools will lead to the formulation of action plan towards quality education.

3. Methodology

3.1 Research Design

This study utilized the descriptive-evaluative-correlational research design. The descriptive method was used to determine the extent of implementation of the Disaster Risk Reduction and Management (DRRM) Program in terms of Basic Concepts and Objectives of DRRM, Curriculum Integration, Contingency Plans, Risk Assessment, Stakeholder Involvement, Training and Capacity Building, and Access to DRRM Information. It also assessed the capabilities of school heads in Roles and Responsibilities in DRRM, Leadership and Decision-Making During Emergencies, Infrastructure and Facilities, Emergency Supplies and Resources Management, Early Warning and Evacuation Systems, Disaster Preparedness Activities, and Learner Safety and Child Protection. Furthermore, it determined the effectiveness of the DRRM Program in terms of Reduction of Disaster-Related Incidents, Continuity of Learning and School Operations, Learners' Disaster Awareness and Behavior Change, Timeliness of Emergency Response Actions, School Leadership and DRRM Governance, Sustainability of DRRM Practices, and Post-Disaster Recovery Outcomes, as well as the constraints encountered. The evaluative method was used to assess the respondents' evaluations. The correlational method was used to test the significant agreement on the rank orders of the implementation, capabilities of school heads, effectiveness of the DRRM Program, and constraints encountered.

3.2 Sampling Technique

The study utilized a total enumeration (universal sampling) technique. All public secondary school heads within the identified study locale were included as respondents of the study. Since the population size was manageable and directly relevant to the objectives of the research, every school head was taken as a respondent to ensure complete and comprehensive data coverage.

3.3 Respondents

The study employed a total enumeration technique, involving all public secondary school heads in the Five Congressional Districts of the Division of Camarines Sur for the School Year 2025–2026. The respondents were categorized according to their respective congressional districts, namely: 1st Congressional District, 2nd Congressional District, 3rd Congressional District, 4th Congressional District, and 5th Congressional District. The allocation of respondents was based on the distribution of schools per district to ensure proportional representation. The 1st Congressional District has 38 school heads; 2nd Congressional District has 45 school heads; 3rd Congressional District has 42 school heads; 4th Congressional District has 68 school heads; and 5th Congressional District has 45 school heads. A total of 238 school heads

3.4 Instruments

This study utilized a researcher-made survey questionnaire to assess the implementation of the Disaster Risk Reduction and Management (DRRM) Program in public secondary schools in the Division of Camarines Sur for School Year 2025–2026. The instrument was designed to gather relevant data on the extent of the level of DRRM implementation, preparedness capabilities of the school heads, and the effectiveness of the implementation, providing a systematic basis for analysis.

3.5 Statistical Tools

For the interpretation and analysis of data, various statistical tools were applied, including Frequency Count, Weighted Mean, Percentage, Rank, and Kendall's Coefficient of Concordance (W). These methods were utilized to examine patterns, measure central tendencies, determine distribution percentages, and evaluate the degree of agreement among respondents. In determining the extent of the level of the implementation of the Disaster Risk Reduction and Management (DRRM) Program along Basic Concepts and Objectives of DRRM, Curriculum Integration, Contingency Plans, Risk Assessment, Stakeholder Involvement, Training and Capacity Building, and Access to DRRM Information, assessing the extent of the capabilities of the school heads employed in the implementation of the Disaster Risk Reduction and Management (DRRM) Program in terms of Roles and Responsibilities in DRRM, Leadership and Decision-Making During Emergencies, Infrastructure and Facilities, Emergency Supplies and Resources Management, Early Warning and Evacuation Systems, Disaster Preparedness Activities, and Learner Safety and Child Protection, and identifying the extent of the effectiveness of the implementation of the Disaster Risk Reduction and Management (DRRM) Program in terms of Reduction of Disaster-Related Incidents, Continuity of Learning and School Operations, Learners' Disaster Awareness and Behavior Change, Timeliness of Emergency Response Actions, School Leadership and DRRM Governance, Sustainability of DRRM Practices, and Post-Disaster Recovery Outcomes, evaluating the constraints encountered in the implementation of the Disaster Risk Reduction and Management (DRRM) Program, the weighted mean, frequency count, and rank were used. In testing the significant agreement on the rank orders of the extent of the level of the implementation of the Disaster Risk Reduction and Management (DRRM) Program, measuring the significant agreement on the rank orders of the extent of the capabilities of the school heads employed in the implementation of the Disaster Risk Reduction and Management (DRRM) Program,

and finding out the significant agreement on the rank orders of the extent of the effectiveness of the implementation of the Disaster Risk Reduction and Management (DRRM) Program, and testing the significant agreement on the rank orders of the constraints encountered in the implementation of the Disaster Risk Reduction and Management (DRRM) Program Kendall's Coefficient of Concordance W was utilized with the following formula (Siegel, 1988).

4. Findings

4.1 The Extent of the Level of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program

Determining the level of the implementation of the DRRM program helps identify the strengths and weaknesses of existing DRRM practices and ensures that schools provide a safe, secure, and disaster-resilient learning environment for learners, teachers, and other stakeholders. Moreover, the implementation of the DRRM Program is mandated by several legal bases in the Philippines. One of these is Republic Act No. 10121, also known as the Philippine Disaster Risk Reduction and Management Act of 2010, which institutionalizes policies and mechanisms for disaster risk reduction and management at all levels, including schools. This law emphasizes disaster preparedness, prevention, mitigation, response, and recovery to strengthen community resilience. In support of this, the Department of Education implemented DepEd Order No. 21, s. 2015, which establishes protocols and guidelines in managing disaster-related information and coordination within schools. Likewise, DepEd Order No. 37, s. 2015 strengthens the integration of DRRM in the basic education system by promoting preparedness and resilience among schools and communities. In this study, the extent of the level of the implementation of the Disaster Risk Reduction and Management (DRRM) Program is determined along Basic Concepts and Objectives of DRRM, Curriculum Integration, Contingency Plans, Risk Assessment, Stakeholder Involvement, Training and Capacity Building, and Access to DRRM Information. Basic Concepts and Objectives of DRRM. Table 3 and Figure 6 present the extent of the level of the implementation of the Disaster Risk Reduction and Management (DRRM) Program along Basic Concepts and Objectives of DRRM. Based on the data, all the seven (7) indicators were rated Much Implemented. The weighted mean ranges from 4.29 to 4.48.

The indicators rated Much Implemented (MI) were: the familiarity with the stages of disaster management, (4.48); the ability to explain the importance of DRRM in schools, (4.36); the awareness of DRRM key terms and definitions, (4.34); the identification of potential hazards and risks, (4.34); the knowledge of local and national DRRM policies, (4.29); the awareness of disaster preparedness measures, (4.29); and the understanding of the goals and purpose of DRRM, (4.28).

Table 1: The Extent of the Level of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program

INDICATORS	1 st Congressional District			2 nd Congressional District			3 rd Congressional District			4 th Congressional District			5 th Congressional District			AVERAGE		
	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R
• Awareness of DRRM key terms and definitions.	4.38	MI	4	4.46	MI	2	4.33	MI	5	4.25	MI	4	4.30	MI	4	4.34	MI	3.5
• Understanding of the goals and purpose of DRRM.	4.35	MI	5	4.23	MI	6	4.36	MI	4	4.16	MI	7	4.29	MI	5	4.28	MI	5.5
• Knowledge of local and national DRRM policies.	4.28	MI	7	4.41	MI	3	4.27	MI	7	4.23	MI	5	4.25	MI	7	4.29	MI	7
• Identification of potential hazards and risks.	4.32	MI	6	4.20	MI	7	4.41	MI	2	4.28	MI	2	4.48	MI	2	4.34	MI	3.5
• Awareness of disaster preparedness measures.	4.44	MI	2	4.25	MI	5	4.31	MI	6	4.19	MI	6	4.28	MI	6	4.29	MI	5.5
• Ability to explain the importance of DRRM in schools.	4.40	MI	3	4.28	MI	4	4.39	MI	3	4.26	MI	3	4.46	MI	3	4.36	MI	2
• Familiarity with the stages of disaster management.	4.51	VM I	1	4.53	VM I	1	4.56	VM I	1	4.29	MI	1	4.50	VM I	1	4.48	MI	1
Average Wx	4.38	MI		4.34	MI		4.38	MI		4.24	MI		4.37	MI		4.34	MI	

The indicator with the highest mean is Familiarity with the stages of disaster management, (4.48, Much Implemented). This suggests that respondents are most knowledgeable in the procedural aspect of DRRM, particularly the sequence of disaster management phases such as preparedness, response, mitigation, and recovery. This can be attributed to the frequent orientation, drills, and simulations conducted in schools, which emphasize step-by-step actions during emergencies. As a result, stakeholders are more confident and consistent in understanding structured procedures compared to broader conceptual knowledge.

On the other hand, the lowest mean is observed in Understanding of the goals and purpose of DRRM, (4.28, Much Implemented). Although still interpreted as Much Implemented, this indicates that respondents are slightly less familiar with the broader conceptual and policy-oriented objectives of DRRM. This may be due to the tendency of schools to focus more on practical drills and emergency procedures rather than in-depth discussions on the overarching goals, frameworks, and long-term objectives of disaster risk reduction.

The findings imply that while DRRM implementation in schools is generally strong and well-practiced, there is still a need to strengthen conceptual understanding alongside procedural knowledge. Schools may consider enhancing orientation programs, integrating DRRM topics in classroom discussions, and reinforcing policy awareness to ensure a more holistic understanding. Strengthening both knowledge and practice will further improve preparedness, responsiveness, and resilience among school stakeholders in managing disasters effectively.

Furthermore, these findings are aligned with the study of Reyes, (2022), which emphasized that school-based disaster preparedness significantly enhances learner safety when implemented through structured drills, trainings, and continuous capacity-building activities. Reyes highlighted that while schools often demonstrate strong practical preparedness, conceptual understanding of DRRM frameworks still requires reinforcement. This supports the present study's result that procedural knowledge is stronger than conceptual awareness, reinforcing the need for a balanced approach in DRRM implementation to maximize its effectiveness in public secondary schools.

4.2 The Extent of the Level of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program along Curriculum Integration

The table present the extent of the level of the implementation of the Disaster Risk Reduction and Management (DRRM) Program along Curriculum Integration. Based on the data, all the eight (8) indicators were rated Much Implemented. The weighted mean ranges from 4.22 to 4.45.

Table 2: The Extent of the Level of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program along Curriculum Integration

INDICATORS	1 st Congressional District			2 nd Congressional District			3 rd Congressional District			4 th Congressional District			5 th Congressional District			AVERAGE		
	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R
• Inclusion of DRRM topics in lesson plans.	4.46	MI	4	4.55	VMI	1	4.39	MI	4	4.42	MI	4	4.41	MI	4	4.45	MI	1
• Use of DRRM-related examples in teaching.	4.52	VMI	2	4.43	MI	3	4.18	MI	7	4.51	VMI	2	4.30	MI	5	4.39	MI	3.5
• Alignment of DRRM lessons with learning competencies.	4.20	MI	6	4.39	MI	4	4.57	VMI	1	4.21	MI	6	4.56	VMI	1	4.39	MI	3.5
• Incorporation of disaster preparedness activities in class.	4.61	VMI	1	4.31	MI	5	4.36	MI	5	4.35	MI	5	4.48	MI	2	4.42	MI	2
• Integration of DRRM in different subject areas.	4.27	MI	5	4.15	MI	7	4.11	MI	8	4.60	VMI	1	4.22	MI	6	4.27	MI	7
• Encouragement of student participation in DRRM discussions.	4.16	MI	7	4.26	MI	6	4.29	MI	6	4.18	MI	7	4.19	MI	7	4.22	MI	8
• Assessment of student understanding of DRRM concepts.	4.10	MI	8	4.50	VMI	2	4.48	MI	2	4.09	MI	8	4.47	MI	3	4.33	MI	5
• Use of teaching materials that reflect DRRM principles	4.49	MI	3	4.08	MI	8	4.40	MI	3	4.47	MI	3	4.10	MI	8	4.31	MI	6
Average Wx	4.35	MI		4.33	MI		4.35	MI		4.35	MI		4.34	MI		4.34	MI	

The indicators rated Much Implemented (MI) were: the inclusion of DRRM topics in lesson plans, (4.45); the incorporation of disaster preparedness activities in class, (4.42); the use of DRRM-related examples in teaching, (4.39); the alignment of DRRM lessons with learning competencies, (4.39); the assessment of student understanding of DRRM concepts, (4.33); the use of teaching materials that reflect DRRM principles, (4.31); the integration of DRRM in different subject areas, (4.27); and the encouragement of student participation in DRRM discussions, (4.22).

The indicator with the highest mean is, Inclusion of DRRM topics in lesson plans, (4.45, Much Implemented). This suggests that teachers consistently integrate DRRM concepts at the planning stage of instruction. This may be attributed to the strong emphasis of the Department of Education on embedding disaster risk reduction across the curriculum, requiring teachers to explicitly include DRRM-related content in their daily and weekly lesson plans. As lesson planning serves as the foundation of classroom instruction, it becomes the most consistently observed and easiest entry point for DRRM integration.

On the other hand, the lowest mean is Encouragement of student participation in DRRM discussions, (4.22, Much Implemented). Although still interpreted as Much Implemented, this indicates that student-centered engagement in DRRM-related discussions is comparatively less emphasized. This may be due to time constraints, large class sizes, or the tendency of teachers to prioritize content delivery and compliance with curriculum requirements over extended learner dialogue and interactive discussion. As a result, opportunities for deeper learner participation in DRRM conversations may sometimes be limited.

The findings imply that DRRM integration in instruction is generally well-practiced across lesson planning, teaching strategies, and assessment activities. However, there is still a need to strengthen learner-centered approaches, particularly in encouraging active participation and critical discussion on DRRM topics. Enhancing interactive strategies such as group discussions, simulations, and reflective activities may further deepen students' understanding and application of disaster preparedness concepts, ultimately strengthening school resilience and awareness.

Furthermore, these findings are supported by the study of Dela Cruz (2021), which emphasized that DRRM training plays a significant role in enhancing teacher preparedness in delivering disaster-related instruction. The study found that teachers who undergo DRRM training are more capable of integrating disaster risk reduction concepts into lesson plans, developing appropriate

learning activities, and effectively delivering safety-focused instruction. This aligns with the present study's findings, highlighting that teacher preparedness and training are essential factors in ensuring effective and sustained implementation of DRRM in schools.

4.3 The Extent of the Level of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program along Contingency Plans

The table presents the extent of the level of the implementation of the Disaster Risk Reduction and Management (DRRM) Program along Contingency Plans. Based on the data, all the six (6) indicators were rated Much Implemented. The weighted mean ranges from 4.29 to 4.44.

Table 3: The Extent of the Level of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program along Contingency Plans

INDICATORS	1 st Congressional District			2 nd Congressional District			3 rd Congressional District			4 th Congressional District			5 th Congressional District			AVERAGE		
	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R
• Existence of a clear school emergency plan.	4.38	MI	4	4.56	VMI	1	4.58	VM	1	4.33	MI	4	4.24	MI	5	4.42	MI	3
• Regular updating of contingency plans based on risks.	4.44	MI	3	4.41	MI	3	4.53	VM	2	4.28	MI	5	4.30	MI	4	4.39	MI	4
• Identification of roles and responsibilities during disasters.	4.25	MI	5	4.20	MI	6	4.24	MI	6	4.42	MI	3	4.36	MI	3	4.29	MI	6
• Availability of evacuation routes and procedures.	4.61	VMI	1	4.37	MI	4	4.46	MI	3	4.19	MI	6	4.57	VMI	1	4.44	MI	1
• Preparedness for different types of hazards (fire, flood, etc.).	4.18	MI	6	4.49	MI	2	4.31	MI	5	4.60	VMI	1	4.18	MI	6	4.35	MI	5
• Inclusion of communication protocols in emergencies.	4.52	VMI	2	4.28	MI	5	4.39	MI	4	4.51	VMI	2	4.46	MI	2	4.43	MI	2
Average Wx	4.40	MI		4.39	MI		4.42	MI		4.39	MI		4.35	MI		4.39	MI	

The indicators rated Much Implemented (MI) were: the availability of evacuation routes and procedures, (4.44); the inclusion of communication protocols in emergencies, (4.43); the existence of a clear school emergency plan, (4.42); the regular updating of contingency plans based on risks, (4.39); the preparedness for different types of hazards such as fire and flood, (4.35); and the identification of roles and responsibilities during disasters, (4.29). The indicator with the highest mean is Availability of evacuation routes and procedures, (4.44, Much Implemented). This suggests that schools have effectively established and disseminated clear evacuation pathways and procedures, which are essential components of disaster preparedness. This may be attributed to the regular conduct of fire and earthquake drills mandated by school safety policies, where learners and personnel are consistently guided on proper evacuation routes. As a result, evacuation procedures have become one of the most visible and well-practiced aspects of DRRM implementation in schools.

On the other hand, the lowest mean is Identification of roles and responsibilities during disasters, (4.29, Much Implemented). Although still interpreted as Much Implemented, this indicates that defining and internalizing specific roles during emergency situations is comparatively less emphasized. This may be due to rotation of school personnel, limited simulation exercises focusing on role assignment, or insufficient reinforcement of individual responsibilities during DRRM activities. Consequently, some stakeholders may still have varying levels of clarity regarding their exact functions during actual disaster events.

The findings imply that school demonstrate strong preparedness in terms of physical planning and procedural awareness, particularly in evacuation and communication systems. However, there is still a need to strengthen role clarity and responsibility assignment to ensure a more coordinated and efficient disaster response. Enhancing simulation drills that assign specific roles to teachers, students, and staff may further improve school readiness and reduce confusion during actual emergencies.

Furthermore, these findings align with the study of Santos (2023), which emphasized that infrastructure readiness and clear emergency systems are critical components of disaster resilience in secondary schools. Santos found that schools with well-established evacuation routes, communication protocols, and contingency plans demonstrate higher levels of disaster preparedness and response efficiency. This supports the present study's findings, underscoring the importance of both structural preparedness and clearly defined responsibilities in strengthening overall DRRM implementation in schools.

4.4 The Extent of the Level of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program along Risk Assessment

The indicators rated Much Implemented (MI) were: the mapping of high-risk areas within the school and community, (4.48); the identification of potential hazards in the school environment, (4.46); the assessment of the impact of disasters on learners and staff, (4.46); the evaluation of the likelihood of various disaster events, (4.42); the documentation of historical disaster occurrences, (4.25);

the prioritization of risks based on severity and probability, (4.24); the regular review and updating of risk assessment data, (4.21); and the involvement of teachers, students, and stakeholders in risk assessment, (4.19).

Table 4: The Extent of the Level of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program along Risk Assessment

INDICATORS	1 st Congressional District			2 nd Congressional District			3 rd Congressional District			4 th Congressional District			5 th Congressional District			AVERAGE		
	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R
• Identification of potential hazards in the school environment.	4.58	VMI	1	4.56	VMI	1	4.12	MI	8	4.61	VMI	1	4.41	MI	3	4.46	MI	2.5
• Evaluation of the likelihood of various disaster events.	4.42	MI	3	4.38	MI	4	4.31	MI	5	4.40	MI	4	4.59	VMI	1	4.42	MI	4
• Assessment of the impact of disasters on learners and staff.	4.50	VMI	2	4.46	MI	3	4.52	VMI	2	4.47	MI	3	4.36	MI	4	4.46	MI	2.5
• Mapping of high-risk areas within the school and community.	4.39	MI	4	4.52	VMI	2	4.49	MI	3	4.53	VMI	2	4.48	MI	2	4.48	MI	1
• Prioritization of risks based on severity and probability.	4.21	MI	6	4.29	MI	5	4.25	MI	6	4.18	MI	7	4.28	MI	5	4.24	MI	6
• Documentation of historical disaster occurrences.	4.32	MI	5	4.14	MI	7	4.37	MI	4	4.28	MI	5	4.15	MI	7	4.25	MI	5
• Involvement of teachers, students, and stakeholders in risk assessment.	4.18	MI	7	4.10	MI	8	4.20	MI	7	4.24	MI	6	4.22	MI	6	4.19	MI	8
• Regular review and updating of risk assessment data.	4.09	MI	8	4.23	MI	6	4.58	VMI	1	4.06	MI	8	4.08	MI	8	4.21	MI	7
Average Wx	4.34	MI		4.34	MI		4.36	MI		4.35	MI		4.32	MI		4.34	MI	

The indicator with the highest mean is “Mapping of high-risk areas within the school and community” (4.48 Much Implemented). This indicates that schools place strong emphasis on identifying and visually locating areas that are most vulnerable to hazards. This may be attributed to regular DRRM planning activities, school mapping exercises, and compliance with safety standards that require the identification of evacuation zones, hazard-prone areas, and safe routes. Through these activities, schools are able to concretely visualize risks, making hazard mapping one of the most consistently implemented DRRM practices.

On the other hand, the lowest mean is “Involvement of teachers, students, and stakeholders in risk assessment” (4.19, Much Implemented). Although still interpreted as Much Implemented, this suggests that participatory engagement in risk assessment is comparatively less emphasized. This may be due to limited stakeholder participation during planning sessions, time constraints, or the tendency for risk assessment activities to be handled primarily by designated DRRM coordinators rather than a broader school-community collaboration. As a result, the inclusion of all stakeholders in the process may not always be fully maximized.

The findings imply that schools demonstrate strong technical implementation of risk assessment practices, particularly in hazard identification, mapping, and impact evaluation. However, there is still a need to strengthen participatory approaches to ensure that all stakeholders are actively engaged in DRRM planning and decision-making. Enhancing collaboration can lead to more accurate risk identification, shared responsibility, and improved disaster preparedness at the school level.

Furthermore, these findings align with the study of Gomez (2022), which emphasized that effective DRRM implementation is strengthened through strong community and school partnerships. However, the study also noted that stakeholder involvement is often less consistent compared to technical aspects such as hazard mapping and documentation. This supports the present study's findings, highlighting the need to further strengthen collaboration and participation in school-based DRRM implementation.

4.5 The Extent of the Level of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program along Stakeholder Involvement

The indicators rated Much Implemented (MI) were: the involvement of local government units in school DRRM initiatives, (4.49); the participation of parents in DRRM activities, (4.45); the coordination among teachers in implementing DRRM programs, (4.41); the collaboration with community organizations for disaster preparedness, (4.37); the engagement of students in DRRM planning and drills, (4.37); the feedback mechanisms for stakeholders on DRRM activities, (4.28); and the consultation with experts or resource persons on DRRM, (4.23).

Table 5: The Extent of the Level of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program along Stakeholder Involvement

INDICATORS	1 st Congressional District			2 nd Congressional District			3 rd Congressional District			4 th Congressional District			5 th Congressional District			AVERAGE		
	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R

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• Participation of parents in DRRM activities.	4.58	VMI	1	4.46	MI	2	4.18	MI	7	4.60	VMI	1	4.41	MI	3	4.45	MI	2
• Involvement of local government units in school DRRM initiatives.	4.52	VMI	2	4.57	VMI	1	4.25	MI	6	4.51	VMI	2	4.59	VMI	1	4.49	MI	1
• Collaboration with community organizations for disaster preparedness.	4.31	MI	5	4.33	MI	5	4.49	MI	2	4.36	MI	4	4.37	MI	4	4.37	MI	4.5
• Engagement of students in DRRM planning and drills.	4.40	MI	4	4.45	MI	3	4.30	MI	5	4.44	MI	3	4.28	MI	5	4.37	MI	4.5
• Coordination among teachers in implementing DRRM programs.	4.44	MI	3	4.41	MI	4	4.47	MI	3	4.29	MI	5	4.46	MI	2	4.41	MI	3
• Consultation with experts or resource persons on DRRM.	4.18	MI	7	4.19	MI	7	4.36	MI	4	4.21	MI	6	4.22	MI	6	4.23	MI	7
• Feedback mechanisms for stakeholders on DRRM activities.	4.25	MI	6	4.24	MI	6	4.58	VMI	1	4.18	MI	7	4.15	MI	7	4.28	MI	6
Average Wx	4.38	MI		4.37	MI		4.37	MI		4.37	MI		4.35	MI		4.37	MI	

The indicator with the highest mean is Involvement of local government units in school DRRM initiatives, (4.49, Much Implemented). This suggests that schools maintain strong coordination with LGUs in implementing DRRM programs, particularly in areas such as disaster preparedness planning, drills, and emergency response support. This may be attributed to the mandated role of LGUs in disaster risk reduction under national policies, where schools are required to coordinate closely with barangay officials, MDRRMO personnel, and other local authorities. Such collaboration ensures that school-based DRRM activities are aligned with community-level disaster response systems.

On the other hand, the lowest mean is Consultation with experts or resource persons on DRRM, (4.23, Much Implemented). Although still interpreted as Much Implemented, this indicates that engagement with DRRM specialists or external experts is comparatively less frequent. This may be due to limited access to technical experts, budget constraints, or reliance on internal school personnel and LGU partners for DRRM-related guidance. As a result, opportunities for advanced technical input and specialized training may not always be fully maximized in school DRRM activities.

The findings imply that stakeholder collaboration in DRRM is generally strong, particularly in terms of LGU involvement, parental participation, and coordination among teachers and students. However, there is still a need to strengthen engagement with DRRM experts and enhance structured feedback mechanisms to further improve the quality and effectiveness of implementation. Strengthening technical partnerships and continuous consultation can help schools adopt more evidence-based and updated DRRM practices.

Furthermore, these findings align with the study of Lopez (2024), which emphasized that effective DRRM integration in schools is highly dependent on strong collaboration between schools and external stakeholders, particularly local government units and community partners. However, the study also noted that consultation with DRRM experts remains limited in many schools, which affects the depth of technical knowledge applied in school-based programs. This supports the present study's findings, highlighting the importance of both strong local partnerships and increased access to expert guidance in strengthening DRRM implementation.

4.6 The Extent of the Level of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program along Training and Capacity Building

The indicators rated Much Implemented (MI) were: the school staff receive first-aid and emergency response training, (4.43); the students are trained in basic disaster preparedness skills, (4.41); the participation of teachers in DRRM-related training sessions, (4.29); the participation in simulation exercises and drills, (4.33); and the training programs aligned with current DRRM policies, (4.30). Meanwhile, the indicator rated Very Much Implemented (VMI) was the regular workshops on risk reduction and management are conducted, (4.52).

Table 6 : The Extent of the Level of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program along Training and Capacity Building

INDICATORS	1 st			2 nd			3 rd			4 th			5 th			AVERAGE		
	Congressional District			Congressional District			Congressional District			Congressional District			Congressional District					
	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R
• Teachers attend DRRM-related training sessions.	4.18	MI	6	4.59	VMI	1	4.32	MI	5	4.15	MI	6	4.20	MI	6	4.29	MI	6
• School staff receive first-aid and emergency response training.	4.41	MI	3	4.26	MI	5	4.57	VMI	1	4.41	MI	3	4.49	MI	2	4.43	MI	2
• Students are trained in basic disaster preparedness skills.	4.46	MI	2	4.45	MI	3	4.38	MI	4	4.45	MI	2	4.39	MI	3	4.41	MI	3

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• Regular workshops on risk reduction and management are conducted.	4.61	VMI	1	4.22	MI	6	4.49	MI	2	4.62	VMI	1	4.64	VMI	1	4.52	VMI	1
• Training programs are aligned with current DRRM policies.	4.33	MI	4	4.31	MI	4	4.19	MI	6	4.34	MI	4	4.31	MI	4	4.30	MI	5
• Participation in simulation exercises and drills.	4.24	MI	5	4.50	VMI	2	4.41	MI	3	4.23	MI	5	4.27	MI	5	4.33	MI	4
Average Wx	4.37	MI		4.39	MI		4.39	MI		4.37	MI		4.38	MI		4.38	MI	

The indicator with the highest mean is Regular workshops on risk reduction and management are conducted, (4.52, Very Much Implemented). This indicates that schools consistently prioritize continuous capacity-building activities for teachers, staff, and even students. This may be attributed to the strong support of school leadership and DRRM coordinators who regularly organize structured workshops to reinforce knowledge, update practices, and strengthen preparedness. The high rating suggests that training is not only occasional but institutionalized as part of the school's DRRM implementation.

On the other hand, the lowest mean is Teachers attend DRRM-related training sessions, (4.29, Much Implemented). Although still interpreted as Much Implemented, this suggests that individual teacher participation in external or formal DRRM trainings is comparatively less frequent than school-organized activities. This may be due to limited training slots, scheduling conflicts, or reliance on in-school workshops rather than external capacity-building opportunities. As a result, not all teachers may have equal access to advanced or specialized DRRM training programs.

The findings imply that schools have a strong and effective DRRM capacity-building system, particularly through regular workshops, student training, and emergency preparedness activities. However, there is still a need to expand access to external training opportunities and ensure that all teachers are consistently updated with specialized DRRM knowledge. Strengthening both internal and external training mechanisms will further enhance school readiness, response capability, and resilience during disasters. Furthermore, these findings are aligned with the study of Balanggoy, (2024), which emphasized that effective DRRM implementation is highly dependent on continuous training and capacity-building activities within schools. However, Balanggoy also noted that disparities in access to formal training opportunities may limit the full professional development of some teachers. This supports the present study's findings, highlighting the importance of sustained and inclusive training programs to strengthen DRRM implementation in educational institutions.

4.7 The Extent of the Level of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program along Access to DRRM Information

The table shows the extent of the level of the implementation of the Disaster Risk Reduction and Management (DRRM) Program along Access to DRRM Information. Based on the data, all the eight (8) indicators were rated Much Implemented. The weighted mean ranges from 4.21 to 4.49.

Table 7: The Extent of the Level of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program along Access to DRRM Information

INDICATORS	1 st Congressional District			2 nd Congressional District			3 rd Congressional District			4 th Congressional District			5 th Congressional District			AVERAGE		
	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R
• Availability of DRRM manuals and guidelines in the school.	4.21	MI	6	4.38	MI	3	4.29	MI	5	4.14	MI	7	4.12	MI	8	4.23	MI	7
• Easy access to hazard maps and risk assessment reports.	4.44	MI	3	4.62	VMI	1	4.51	VMI	2	4.26	MI	6	4.40	MI	3	4.45	MI	3
• Distribution of DRRM information to teachers and staff.	4.18	MI	7	4.22	MI	7	4.25	MI	7	4.11	MI	8	4.28	MI	5	4.21	MI	8
• Accessibility of DRRM resources for students.	4.11	MI	8	4.27	MI	6	4.60	VMI	1	4.39	MI	3	4.13	MI	7	4.30	MI	5
• Use of online platforms for DRRM updates and alerts.	4.63	VMI	1	4.16	MI	8	4.39	MI	3	4.60	VMI	1	4.66	VMI	1	4.49	MI	1
• Posting of DRRM information on school notice boards.	4.37	MI	4	4.35	MI	4	4.12	MI	8	4.33	MI	4	4.36	MI	4	4.31	MI	4
• Timely dissemination of disaster warnings and advisories.	4.55	VMI	2	4.52	VMI	2	4.36	MI	4	4.48	MI	2	4.50	VMI	2	4.48	MI	2
• Availability of DRRM contact lists and emergency numbers.	4.30	MI	5	4.28	MI	5	4.22	MI	6	4.27	MI	5	4.26	MI	6	4.27	MI	6
Average Wx	4.40	MI		4.40	MI		4.39	MI		4.32	MI		4.39	MI		4.38	MI	

The indicators rated Much Implemented (MI) were: the use of online platforms for DRRM updates and alerts, (4.49); the timely dissemination of disaster warnings and advisories, (4.48); the easy access to hazard maps and risk assessment reports, (4.45); the posting of DRRM information on school notice boards, (4.31); the accessibility of DRRM resources for students, (4.30); the availability of DRRM contact lists and emergency numbers, (4.27); the availability of DRRM manuals and guidelines in the school, (4.23); and the distribution of DRRM information to teachers and staff, (4.21).

The indicator with the highest mean is “Use of online platforms for DRRM updates and alerts” (4.49, Much Implemented). This indicates that schools have effectively adopted digital tools such as messaging applications, social media groups, and school-based online systems to disseminate DRRM-related information quickly and efficiently. This may be attributed to the increasing reliance on technology in school communication systems, especially after the pandemic, which strengthened the use of digital platforms for real-time updates and emergency communication.

On the other hand, the lowest mean is “Distribution of DRRM information to teachers and staff” (4.21, Much Implemented). Although still interpreted as Much Implemented, this suggests that the formal and direct dissemination of printed or structured DRRM materials to personnel is comparatively less emphasized. This may be due to the shift toward digital communication, where information is often shared online rather than through hard copies or formal distribution channels. As a result, some teachers and staff may not consistently receive standardized DRRM reference materials.

The findings imply that schools demonstrate a strong and modernized system of DRRM information dissemination, particularly through online platforms and timely alerts. However, there is still a need to strengthen traditional and structured distribution methods to ensure that all stakeholders have equal and consistent access to DRRM resources. A balanced approach combining both digital and printed materials can enhance comprehension, retention, and accessibility of disaster-related information.

Furthermore, these findings align with the study of Lavilles and Hordista, (2024), which emphasized that effective DRRM implementation in schools is strongly influenced by efficient information dissemination systems and accessible resources. This supports the present study’s findings, underscoring the importance of combining modern digital tools with structured dissemination strategies to strengthen DRRM implementation in schools.

4.8 The Summary of the Extent of the Level of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program

The summary of the extent of the level of the implementation of the Disaster Risk Reduction and Management (DRRM) Program is reflected in Table 8. Based on the data, all the seven (7) indicators were rated Much Implemented. The weighted mean ranges from 4.34 to 4.39.

Table 8: The Summary of the Extent of the Level of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program

INDICATORS	1 st Congressional District			2 nd Congressional District			3 rd Congressional District			4 th Congressional District			5 th Congressional District			AVERAGE		
	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R
• Basic Concepts and Objectives of DRRM	4.38	MI	3.5	4.34	MI	5.5	4.38	MI	4	4.24	MI	7	4.37	MI	3	4.35	MI	5
• Curriculum Integration	4.35	MI	6	4.33	MI	7	4.35	MI	7	4.35	MI	4.5	4.34	MI	6	4.34	MI	6.5
• Contingency Plans	4.40	MI	1.5	4.39	MI	2.5	4.42	MI	1	4.39	MI	1	4.35	MI	4.5	4.39	MI	1
• Risk Assessment	4.34	MI	7	4.34	MI	5.5	4.36	MI	6	4.35	MI	4.5	4.32	MI	7	4.34	MI	6.5
• Stakeholder Involvement	4.38	MI	3.5	4.37	MI	4	4.37	MI	5	4.37	MI	2.5	4.35	MI	4.5	4.37	MI	4
• Training and Capacity Building	4.37	MI	5	4.39	MI	2.5	4.39	MI	2.5	4.37	MI	2.5	4.38	MI	2	4.38	MI	2.5
• Access to DRRM Information	4.40	MI	1.5	4.40	MI	1	4.39	MI	2.5	4.32	MI	6	4.39	MI	1	4.38	MI	2.5
Average Wx	4.37	MI		4.37	MI		4.38	MI		4.34	MI		4.36	MI		4.36	MI	

The indicators rated Much Implemented (MI) were: the Contingency Plans, (4.39); the Training and Capacity Building, (4.38); the Access to DRRM Information, (4.38); the Stakeholder Involvement, (4.37); the Basic Concepts and Objectives of DRRM, (4.35); the Curriculum Integration, (4.34); and the Risk Assessment, (4.34). The indicator with the highest mean is Contingency Plans, (4.39, Much Implemented). This suggests that schools have strongly prioritized the development and implementation of clear contingency plans to address various disaster scenarios. This may be attributed to strict compliance with DepEd DRRM requirements, which mandate schools to prepare updated emergency protocols, action plans, and response strategies. As contingency planning directly guides actual emergency response, it is often given greater attention and regular updating by school administrators and DRRM coordinators.

On the other hand, the lowest means are Curriculum Integration, (4.34, Much Implemented) and Risk Assessment, (4.34, Much Implemented). Although still interpreted as Much Implemented, this indicates that integrating DRRM into classroom instruction and conducting systematic risk assessment are comparatively less emphasized than operational preparedness. This may be due to teachers’ workload, limited instructional time, and the technical nature of risk assessment activities, which often require additional training and coordination. As a result, these areas may not be as consistently reinforced as contingency planning and emergency preparedness procedures. The overall findings imply that DRRM implementation in schools is generally strong and well-established across all major dimensions, particularly in planning, training, and information access. However, there is still a need to strengthen curriculum integration and risk assessment practices to ensure that DRRM is not only operationally implemented but also deeply embedded in teaching and learning processes. Enhancing these areas can promote a more holistic and sustainable DRRM culture within schools.

Furthermore, these findings align with the study of Alarte, (2024), which emphasized that effective DRRM implementation in the context of inclusive education requires both strong institutional preparedness and meaningful integration into instructional practices. This supports the present study's findings, highlighting that a balanced approach—combining operational readiness with instructional integration—is essential for a comprehensive and inclusive DRRM implementation in schools.

4.9 The Test of Significant Agreement on the Rank Orders of the Extent of the Level of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program

To test the significant agreement on the rank orders of the extent of the level of the implementation of the Disaster Risk Reduction and Management (DRRM) Program among the School Heads of the 5 Congressional Districts in the Division of Camarines Sur, the researcher utilized Kendall's Coefficient of Concordance (W), and the chi-square test.

Table 9: The Test of Significant Agreement on the Rank Orders of the Extent of the Level of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program

Indicators	Basic Concepts and Objectives of DRRM	Curriculum Integration	Contingency Plans	Risk Assessment	Stakeholder Involvement	Training and Capacity Building	Access to DRRM Information
Sum of squares of the difference	398	220	91.50	542	258	135.50	442
Number of Cases	7	8	6	8	7	6	8
Number of Groups	5	5	5	5	5	5	5
Coefficient of Concordance W	0.57	0.21	0.21	0.52	0.37	0.31	0.42
Computed χ^2 Value	17.10	7.35	5.25	13.00	11.10	7.75	14.70
Degree of Freedom	6	7	5	7	6	5	7
Tabular χ^2 value	12.59 0.05 0.025 0.01 0.005 0.001	14.07 16.62 18.48 20.28 24.32	11.07 13.38 15.09 16.75 20.52	14.07 16.62 18.48 20.28 24.32	12.59 15.03 16.81 18.55 22.46	11.07 13.39 15.09 16.75 20.52	14.07 16.62 18.48 20.28 24.32
Decision on Alternative Hypothesis H_1	Accepted	Rejected	Rejected	Rejected	Rejected	Rejected	Accepted
Significance of Agreement	0.01	Not Significant	Not Significant	Not Significant	Not Significant	Not Significant	0.05

Based on the statistical results, it can be seen that the Coefficient of Concordance W and the Computed χ^2 value yielded to: Basic Concepts and Objectives of DRRM, 0.57 and 17.10, ($p < 0.01$); Curriculum Integration, 0.21 and 7.35, ($p > 0.05$); Contingency Plans, 0.21 and 5.25, ($p > 0.05$); Risk Assessment, 0.52 and 13.00, ($p > 0.05$); Stakeholder Involvement, 0.37 and 11.10, ($p > 0.05$); Training and Capacity Building, 0.31 and 7.75, ($p > 0.05$) and Access to DRRM Information, 0.42 and 14.70, ($p < 0.05$). Thus, the alternative hypothesis was rejected, except on Basic Concepts and Objectives of DRRM and Access to DRRM Information.

The alternative hypothesis was rejected for Curriculum Integration, Contingency Plans, Risk Assessment, Stakeholder Involvement, and Training and Capacity Building because the computed chi-square (χ^2) values for these indicators were not statistically significant at the 0.05 level of significance ($p > 0.05$). This means that the observed level of agreement among the school heads in ranking these aspects of DRRM implementation was not strong enough to conclude that a significant concordance existed. In statistical terms, the agreement that appeared in the rankings could have occurred by chance rather than reflecting a true consensus among the respondents. Therefore, there was insufficient evidence to support the alternative hypothesis that a significant agreement existed among the school heads regarding these dimensions.

On the other hand, the alternative hypothesis was accepted for Basic Concepts and Objectives of DRRM and Access to DRRM Information because their computed chi-square values were statistically significant. The findings imply that while school heads across the five Congressional Districts share similar views regarding the implementation of the basic concepts and objectives of DRRM and access to DRRM information, variations exist in their perceptions of other DRRM components. This lack of agreement may indicate differences in resources, implementation strategies, school contexts, and levels of preparedness among districts. Consequently, educational leaders and DRRM coordinators may need to strengthen policy standardization, monitoring mechanisms, and capacity-building initiatives to ensure more consistent implementation of DRRM practices across schools. Enhancing collaboration and sharing of best practices among districts may also help minimize disparities and promote a more unified and effective DRRM program throughout the Division of Camarines Sur.

Furthermore, these findings align with the study of Pojas (2024), which emphasized that the effectiveness of DRRM programs in public schools is highly influenced by the consistency of implementation and the strength of contingency planning across different

educational settings. Pojas found that variations in DRRM practices among schools often reflect differences in local implementation strategies, resource availability, and administrative prioritization. This supports the present study's findings, highlighting that inconsistencies in DRRM implementation across districts can affect the overall effectiveness of disaster preparedness programs, thereby reinforcing the need for a more standardized and coordinated approach.

4.10 The Summary of the Extent of the Capabilities of the School Heads in the Implementation of the Disaster Risk Reduction and Management (DRRM) Program

The summary of the extent of the capabilities of the school heads in the implementation of the Disaster Risk Reduction and Management (DRRM) Program is reflected in Table 10.

Table 10: The Summary of the Extent of the Capabilities of the School Heads in the Implementation of the Disaster Risk Reduction and Management (DRRM) Program

INDICATORS	1 st Congressional District			2 nd Congressional District			3 rd Congressional District			4 th Congressional District			5 th Congressional District			AVERAGE		
	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R
• Roles and Responsibilities in DRRM	4.27	MC	7	4.29	MC	6	4.30	MC	6	4.27	MC	7	4.27	MC	7	4.28	MC	7
• Leadership and Decision-Making During Emergencies	4.31	MC	6	4.28	MC	7	4.28	MC	7	4.29	MC	6	4.30	MC	6	4.29	MC	6
• Infrastructure and Facilities	4.52	VMC	2	4.51	VMC	2	4.49	MC	2	4.50	VMC	2	4.51	VMC	2	4.51	VMC	2
• Emergency Supplies and Resources Management	4.37	MC	3	4.37	MC	4	4.32	MC	5	4.34	MC	3.5	4.35	MC	3.5	4.35	MC	4
• Early Warning and Evacuation Systems	4.34	MC	5	4.38	MC	3	4.39	MC	3	4.34	MC	3.5	4.35	MC	3.5	4.36	MC	3
• Disaster Preparedness Activities	4.35	MC	4	4.32	MC	5	4.33	MC	4	4.33	MC	5	4.33	MC	5	4.33	MC	5
• Learner Safety and Child Protection	4.58	VMC	1	4.62	VMC	1	4.56	VMC	1	4.56	VMC	1	4.63	VMC	1	4.59	VMC	1
Average Wx	4.39	MC		4.39	MC		4.38	MC		4.38	MC		4.39	MC		4.39	MC	

Based on the data, out of seven (7) indicators, two (2) were rated Very Much Capable and five (5) were rated Much Capable. The indicators rated Very Much Capable (VMC) were: the Learner Safety and Child Protection, (4.59); and the Infrastructure and Facilities, (4.51). Meanwhile, the indicators rated Much Capable (MC) were: the Early Warning and Evacuation Systems, (4.36); the Emergency Supplies and Resources Management, (4.35); the Disaster Preparedness Activities, (4.33); the Leadership and Decision-Making During Emergencies, (4.29); and the Roles and Responsibilities in DRRM, (4.28).

The indicator with the highest mean is Learner Safety and Child Protection, (4.59, Very Much Capable). This indicates that school heads place the greatest emphasis on safeguarding the welfare, safety, and protection of learners during disaster situations. This may be attributed to the strong implementation of child protection policies and DRRM guidelines in schools, which prioritize the safety of students above all other concerns during emergencies. School heads are consistently expected to ensure proper supervision, safe evacuation, and protection of learners, making this area one of the most highly developed aspects of DRRM capability.

On the other hand, the lowest mean is Roles and Responsibilities in DRRM, (4.28, Much Capable). Although still interpreted as Much Capable, this suggests that there are comparatively fewer strengths in clearly defining, delegating, and reinforcing DRRM roles and responsibilities among school personnel. This may be due to overlapping functions, varying levels of DRRM training, or inconsistencies in communicating specific responsibilities during disaster situations. As a result, some school personnel may still require clearer guidance and role clarification in emergency management.

The overall findings imply that school heads possess generally strong capabilities in implementing DRRM programs, particularly in ensuring learner safety and maintaining disaster-ready infrastructure. However, there is still a need to strengthen organizational aspects such as role delegation, coordination, and accountability to improve overall efficiency during emergencies. Strengthening these areas can lead to more organized disaster response systems, clearer communication, and more effective implementation of DRRM policies in schools.

Furthermore, these findings align with the study of Calamba, (2024), which emphasized that disaster preparedness and awareness in schools are significantly influenced by the effectiveness of school leadership, learner protection measures, and preparedness systems. This supports the present study's findings, highlighting the importance of combining strong learner protection with clearly defined DRRM roles and organizational systems in schools.

4.11 The Test of Significant Agreement on the Rank Orders the Extent of the Capabilities of the School Heads in the Implementation of the Disaster Risk Reduction and Management (DRRM) Program

To test the significant agreement on the rank orders of the extent of the capabilities of the school heads in the implementation of the Disaster Risk Reduction and Management (DRRM) Program, the researcher utilized Kendall's Coefficient of Concordance (W), and the chi-square test.

Table 11: The Test of Significant Agreement on the Rank Orders the Extent of the Capabilities of the School Heads in the Implementation of the Disaster Risk Reduction and Management (DRRM) Program

Indicators	Roles and Responsibilities in DRRM	Leadership and Decision-Making During Emergencies	Infrastructure and Facilities	Emergency Supplies and Resources Management	Early Warning and Evacuation Systems	Disaster Preparedness Activities	Learner Safety and Child Protection
Sum of squares of the difference	517.50	942.50	296	1094	484.5	406	588.50
Number of Cases	8	10	8	9	9	8	7
Number of Groups	5	5	5	5	5	5	5
Coefficient of Concordance W	0.49	0.46	0.28	0.73	0.32	0.39	0.84
Computed χ^2 Value	17.15	20.70	9.80	29.20	12.80	13.65	25.20
Degree of Freedom	7	9	7	8	8	7	6
Tabular χ^2 value	14.07	16.92	14.07	15.51	15.51	14.07	12.59
0.05	16.62	19.68	16.62	18.17	18.17	16.62	15.03
0.025	18.48	21.67	18.48	20.09	20.09	18.48	16.81
0.01	20.28	23.59	20.28	21.95	21.95	20.28	18.55
0.005	24.32	27.88	24.32	26.12	26.12	24.32	22.46
0.001							
Decision on Alternative Hypothesis H_1	Accepted	Accepted	Rejected	Accepted	Rejected	Rejected	Accepted
Significance of Agreement	0.025	0.025	Not Significant	0.001	Not Significant	Not Significant	0.001

Based on the statistical results, it can be seen that the Coefficient of Concordance W and the Computed χ^2 value yielded to: Roles and Responsibilities in DRRM, 0.49 and 17.15, ($p < 0.025$); Leadership and Decision-Making During Emergencies, 0.46 and 20.70, ($p < 0.025$); Infrastructure and Facilities, 0.28 and 9.80, ($p > 0.05$); Emergency Supplies and Resources Management, 0.73 and 29.20, ($p < 0.001$); Early Warning and Evacuation Systems, 0.32 and 12.80, ($p > 0.05$); Disaster Preparedness Activities, 0.39 and 13.65, ($p > 0.05$); and Learner Safety and Child Protection, 0.84 and 25.20, ($p < 0.001$). Thus, the alternative hypothesis was accepted, except on Infrastructure and Facilities, Early Warning and Evacuation Systems, and Disaster Preparedness Activities.

The alternative hypothesis was accepted for Roles and Responsibilities in DRRM, Leadership and Decision-Making During Emergencies, Emergency Supplies and Resources Management, and Learner Safety and Child Protection because the computed chi-square (χ^2) values for these dimensions were statistically significant ($p < 0.05$). This indicates that the rankings provided by the school heads showed a significant degree of agreement and consistency. The relatively high Kendall's Coefficient of Concordance (W) values, particularly for Emergency Supplies and Resources Management ($W = 0.73$) and Learner Safety and Child Protection ($W = 0.84$), further demonstrate a strong consensus among the respondents. Therefore, there was sufficient evidence to conclude that the school heads shared similar perceptions regarding their capabilities in these aspects of DRRM implementation.

On the other hand, the alternative hypothesis was rejected for Infrastructure and Facilities, Early Warning and Evacuation Systems, and Disaster Preparedness Activities because their computed chi-square (χ^2) values were not statistically significant ($p > 0.05$). This means that the rankings of the school heads did not exhibit enough agreement to establish a significant concordance. The observed differences in rankings suggest that school heads may have varied experiences, resources, levels of preparedness, and implementation practices in these areas. Since the agreement among respondents was not strong enough to rule out the possibility that it occurred by chance, there was insufficient statistical evidence to support the existence of a significant agreement, leading to the rejection of the alternative hypothesis for these dimensions.

The findings imply that school heads possess relatively consistent perceptions regarding their capabilities in managing DRRM responsibilities, leading emergency responses, administering emergency resources, and ensuring learner safety and child protection. These areas may reflect established policies, shared training experiences, and common practices implemented throughout the Division of Camarines Sur. However, the lack of significant agreement in Infrastructure and Facilities, Early Warning and Evacuation Systems, and Disaster Preparedness Activities suggests variations in school conditions, resource availability, preparedness measures, and implementation practices across districts. This indicates a need for the Schools Division Office to strengthen support mechanisms, provide equitable allocation of resources, and enhance monitoring and capacity-building programs to promote greater consistency in these critical aspects of DRRM implementation. Such efforts can help ensure that all schools maintain comparable levels of preparedness and resilience against disasters.

4.12 The Summary of the Extent of the Effectiveness of the and Implementation of the Disaster Risk Reduction Management (DRRM) Program

The summary of the extent of the effectiveness of the implementation of the Disaster Risk Reduction and Management (DRRM) Program is reflected in Table 12.

Table 12: The Summary of the Extent of the Effectiveness of the and Implementation of the Disaster Risk Reduction Management (DRRM) Program

INDICATORS	1 st Congressional District			2 nd Congressional District			3 rd Congressional District			4 th Congressional District			5 th Congressional District			AVERAGE		
	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R	Wx	I	R
• Reduction of Disaster-Related Incidents	4.39	ME	6	4.41	ME	5	4.42	ME	5	4.45	ME	5	4.41	ME	5	4.42	ME	5
• Continuity of Learning and School Operations	4.42	ME	5	4.43	ME	4	4.51	VME	3	4.47	ME	2.5	4.51	VM E	2	4.47	ME	3.5
• Learners' Disaster Awareness and Behavior Change	4.51	VME	2	4.50	VM E	2	4.54	VME	1	4.52	VM E	1	4.55	VM E	1	4.52	VME	1
• Timeliness of Emergency Response Actions	4.52	VME	1	4.51	VM E	1	4.52	VME	2	4.46	ME	4	4.50	VM E	3	4.50	VME	2
• School Leadership and DRRM Governance	4.30	ME	7	4.28	ME	7	4.29	ME	6	4.27	ME	7	4.28	ME	6	4.28	ME	6
• Sustainability of DRRM Practices	4.50	VME	3	4.32	ME	6	3.10	E	7	4.41	ME	6	4.20	ME	7	4.11	ME	7
• Post-Disaster Recovery Outcomes	4.48	ME	4	4.48	ME	3	4.49	ME	4	4.47	ME	2.5	4.45	ME	4	4.47	ME	3.5
Average Wx	4.44	ME		4.42	ME		4.27	ME		4.44	ME		4.41	ME		4.40	ME	

Based on the data, out of seven (7) indicators, two (2) were rated Very Much Effective and five (5) were rated Much Effective. The weighted mean ranges from 4.11 to 4.52. The indicators rated Very Much Effective (VME) were: the Learners' Disaster Awareness and Behavior Change, (4.52); and the Timeliness of Emergency Response Actions, (4.50). Meanwhile, the indicators rated Much Effective (ME) were: the Continuity of Learning and School Operations, (4.47); the Post-Disaster Recovery Outcomes, (4.47); the Reduction of Disaster-Related Incidents, (4.42); the School Leadership and DRRM Governance, (4.28); and the Sustainability of DRRM Practices, (4.11).

The indicator with the highest mean is Learners' Disaster Awareness and Behavior Change, (4.52, Very Much Effective). This indicates that the DRRM program is highly successful in improving learners' understanding, awareness, and behavioral responses toward disaster risks. This may be attributed to the continuous integration of DRRM concepts in classroom instruction, regular drills, and school-wide awareness campaigns that reinforce safety-oriented behaviors among students. As a result, learners are not only gaining knowledge but are also demonstrating positive behavioral changes that support safer school environments. On the other hand, the lowest mean is Sustainability of DRRM Practices, (4.11, Much Effective). Although still interpreted as Much Effective, this suggests that long-term sustainability of DRRM initiatives is comparatively less developed than other dimensions. This may be due to challenges in maintaining consistent funding, institutionalization of practices, and continuous stakeholder engagement over time. Additionally, DRRM activities may still be implemented as structured programs rather than fully embedded routines within the school system.

The overall findings imply that the DRRM program is highly effective in enhancing learner preparedness and ensuring timely response to emergencies, while also maintaining acceptable levels of continuity, governance, and recovery. However, there is still a need to strengthen sustainability mechanisms to ensure that DRRM practices are consistently institutionalized and not dependent on periodic implementation. Enhancing long-term planning, resource allocation, and policy integration can further improve the overall effectiveness of DRRM in schools.

Furthermore, these findings align with the study of Amil, (2024), which emphasized that collaborative governance mechanisms play a crucial role in the effectiveness of Disaster Risk Reduction and Management in the Philippines. The study found that strong collaboration among stakeholders enhances disaster awareness, preparedness, and response effectiveness, particularly in educational and community settings. However, it also highlighted that sustaining DRRM initiatives over time remains a challenge due to issues in coordination, institutional support, and resource continuity. This supports the present study's findings, underscoring the importance of strengthening collaborative governance and sustainability mechanisms to ensure long-term effectiveness of DRRM programs in schools.

4.13 The Test of Significant Agreement on the Rank Orders of the Extent of the Effectiveness of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program

To test the significant agreement on the rank orders of the extent of the effectiveness of the implementation of the Disaster Risk Reduction Management (DRRM) Program, the researcher utilized Kendall's Coefficient of Concordance (W), and the chi-square test

Table 13: The Test of Significant Agreement on the Rank Orders of the Extent of the Effectiveness of the Implementation of the Disaster Risk Reduction and Management (DRRM) Program

Indicators	Reduction of Disaster-Related Incidents	Continuity of Learning and School Operations	Learners' Disaster Awareness and Behavior Change	Timeliness of Emergency Response Actions	School Leadership and DRRM Governance	Sustainability of DRRM Practices	Post-Disaster Recovery Outcomes
Sum of squares of the difference	850	876.50	1443.50	600	408.50	275	894
Number of Cases	8	9	10	8	8	8	10
Number of Groups	5	5	5	5	5	5	5
Coefficient of Concordance W	0.81	0.59	0.70	0.57	0.40	0.26	0.43
Computed χ^2 Value	28.35	23.60	31.50	19.95	14.00	9.10	19.35
Degree of Freedom	7	8	9	7	7	7	9
Tabular χ^2 value	14.07	15.51	16.92	14.07	14.07	14.07	16.92
0.05	16.62	18.17	19.68	16.62	16.62	16.62	19.68
0.025	18.48	20.09	21.67	18.48	18.48	18.48	21.67
0.01	20.28	21.95	23.59	20.28	20.28	20.28	23.59
0.005	24.32	26.12	27.88	24.32	24.32	24.32	27.88
0.001							
Decision on Alternative Hypothesis H_1	Accepted	Accepted	Accepted	Accepted	Rejected	Rejected	Accepted
Significance of Agreement	0.001	0.005	0.001	0.01	Not Significant	Not Significant	0.05

Based on the statistical results, it can be seen that the Coefficient of Concordance W and the computed χ^2 value yielded to: Reduction of Disaster-Related Incidents, 0.81 and 28.35, ($p < 0.001$); Continuity of Learning and School Operations, 0.59 and 23.60, ($p < 0.005$); Learners' Disaster Awareness and Behavior Change, 0.70 and 31.50, ($p < 0.001$); Timeliness of Emergency Response Actions, 0.57 and 19.95, ($p > 0.01$); School Leadership and DRRM Governance, 0.40 and 14.00, ($p > 0.05$); Sustainability of DRRM Practices, 0.26 and 9.10, ($p > 0.05$); and Post-Disaster Recovery Outcomes, 0.43 and 19.35, ($p < 0.05$). Thus, the alternative hypothesis was accepted, except on School Leadership and DRRM Governance, and Sustainability of DRRM Practices.

The alternative hypothesis was accepted because the computed Kendall's Coefficient of Concordance (W) and chi-square (χ^2) values showed significant agreement among the respondents on several dimensions of the effectiveness of the implementation of the Disaster Risk Reduction and Management (DRRM) Program. Significant agreement was observed in the dimensions of Reduction of Disaster-Related Incidents, Continuity of Learning and School Operations, Learners' Disaster Awareness and Behavior Change, Timeliness of Emergency Response Actions, and Post-Disaster Recovery Outcomes. These results indicate that the respondents consistently ranked these dimensions similarly, reflecting a common perception regarding the effectiveness of DRRM implementation in these areas. However, the alternative hypothesis was not accepted in the dimensions of School Leadership and DRRM Governance, and Sustainability of DRRM Practices because their p-values were greater than 0.05, indicating no significant agreement among respondents in these aspects.

The implications of these findings suggest that DRRM implementation is generally perceived as effective in reducing disaster-related risks, ensuring continuity of education, improving learners' awareness and behavior, and supporting post-disaster recovery. The significant agreement among respondents in these dimensions reflects consistent experiences and observations regarding the positive outcomes of DRRM practices in schools. However, the lack of significant agreement in the areas of leadership and governance, and sustainability of DRRM practices implies that perceptions vary across schools or districts, possibly due to differences in leadership approaches, implementation strategies, and institutional support. These findings highlight the need to strengthen coordination, governance systems, and sustainability mechanisms to ensure more uniform and effective DRRM implementation across all schools.

Furthermore, these findings align with the study of Briones and Jalos, (2024), which emphasized that effective coordination among School Disaster Risk Reduction and Management (SDRRM) coordinators significantly contributes to the disaster response capabilities of high-risk schools. This supports the present study's findings, underscoring the importance of strengthening coordination systems, leadership collaboration, and sustainable DRRM practices to ensure more effective and consistent disaster preparedness and response in schools.

4.14 The Constraints Encountered in the Implementation of the Disaster Risk Reduction and Management (DRRM) Program

Despite the government's continued efforts to strengthen disaster preparedness and resilience in schools, various constraints may hinder the effective implementation of the Disaster Risk Reduction and Management (DRRM) Program. These constraints may include inadequate funding, limited resources and facilities, insufficient training opportunities, lack of technical support, and low

stakeholder participation. Identifying these challenges is essential in determining areas that require improvement and support to ensure the successful implementation of DRRM initiatives in schools.

Examining the constraints encountered in the implementation of the DRRM Program is important because these factors directly affect the capacity of schools to prepare for, respond to, and recover from disasters. Understanding these barriers enables school leaders, policymakers, and stakeholders to formulate appropriate interventions, allocate resources effectively, and enhance the overall resilience and safety of the school community.

Table 14: The Constraints Encountered in the Implementation of the Disaster Risk Reduction and Management (DRRM) Program

INDICATORS	1 st Congressional District			2 nd Congressional District			3 rd Congressional District			4 th Congressional District			5 th Congressional District			AVERAGE		
	Wk	I	R	Wk	I	R	Wk	I	R	Wk	I	R	Wk	I	R	Wk	I	R
1. Insufficient budget for DRRM activities	4.10	MS	1	4.05	MS	1	4.12	MS	1	4.08	MS	1	4.05	MS	1	4.09	MS	1
2. Lack of emergency response equipment	4.02	MS	2	4.00	MS	4	4.05	MS	3	4.01	MS	2	4.03	MS	2	4.02	MS	3
3. Inadequate DRRM training for school personnel	3.98	MS	4	4.01	MS	3	4.03	MS	4	3.95	MS	4	3.99	MS	4	3.99	MS	4
4. Limited availability of DRRM instructional materials	3.92	MS	8	3.90	MS	8	3.95	MS	7.5	3.88	MS	8	3.91	MS	7.5	3.91	MS	8
5. Insufficient time for DRRM-related activities	3.85	MS	12	3.80	MS	13.5	3.88	MS	11.5	3.82	MS	11.5	3.84	MS	11.5	3.84	MS	12
6. Poor maintenance of safety facilities and equipment	3.94	MS	5	3.94	MS	5	3.97	MS	5	3.90	MS	5.5	3.93	MS	5	3.94	MS	5
7. Limited participation of parents in DRRM programs	3.88	MS	10	3.86	MS	10	3.90	MS	10	3.84	MS	10	3.87	MS	10	3.87	MS	10
8. Low community involvement in DRRM initiatives	3.90	MS	9	3.89	MS	9	3.92	MS	9	3.85	MS	9	3.88	MS	9	3.89	MS	9
9. Difficulty coordinating with external agencies	3.95	MS	6	3.93	MS	6	3.96	MS	6	3.90	MS	5.5	3.92	MS	6	3.93	MS	6
10. Inadequate disaster preparedness facilities	4.05	MS	2	4.03	MS	2	4.06	MS	2	4.00	MS	3	4.02	MS	2	4.03	MS	2
11. Limited access to updated DRRM information	3.82	MS	14	3.80	MS	13.5	3.85	MS	14	3.78	MS	14	3.81	MS	14	3.81	MS	14
12. Shortage of personnel to implement DRRM activities	3.94	MS	7	3.92	MS	7	3.95	MS	7.5	3.89	MS	7	3.91	MS	7.5	3.92	MS	7
13. Challenges in conducting regular disaster drills	3.87	MS	11	3.85	MS	11	3.88	MS	11.5	3.82	MS	11.5	3.84	MS	11.5	3.85	MS	11
14. Delayed allocation of DRRM resources and support	3.82	MS	13	3.81	MS	12	3.86	MS	13	3.79	MS	13	3.82	MS	13	3.82	MS	13
Average Wk	3.93	MS		3.91	MS		3.96	MS		3.89	MS		3.91	MS		3.92	MS	

The table presents the constraints encountered in the implementation of the DRRM Program. Based on the data, all the fourteen (14) indicators were rated Much Serious (MS). The weighted mean ranges from 3.81 to 4.09.

The indicators rated Much Serious (MS) were: Insufficient budget for DRRM activities, (4.09); Lack of emergency response equipment, (4.02); Inadequate disaster preparedness facilities, (4.03); Inadequate DRRM training for school personnel, (3.99); Poor maintenance of safety facilities and equipment, (3.94); Difficulty coordinating with external agencies, (3.93); Shortage of personnel to implement DRRM activities, (3.92); Limited availability of DRRM instructional materials, (3.91); Low community involvement in DRRM initiatives, (3.89); Limited participation of parents in DRRM programs, (3.87); Challenges in conducting regular disaster drills, (3.85); Insufficient time for DRRM-related activities, (3.84); Delayed allocation of DRRM resources and support, (3.82); and Limited access to updated DRRM information, (3.81).

The indicator that ranked highest is Insufficient budget for DRRM activities (4.09), followed closely by Inadequate disaster preparedness facilities (4.03) and Lack of emergency response equipment (4.02). These were rated highest because financial limitations directly affect almost all aspects of DRRM implementation. When funding is insufficient, schools struggle to procure equipment, maintain facilities, conduct training, and sustain preparedness activities. As a result, budget-related concerns are consistently perceived as the most pressing constraint since they influence the availability and quality of other essential DRRM resources and services.

On the other hand, the lowest-ranked indicator is Limited access to updated DRRM information (3.81), followed by Delayed allocation of DRRM resources and support (3.82) and Insufficient time for DRRM-related activities (3.84). These were rated lowest because, while still considered constraints, they are less directly experienced or less immediately felt compared to resource-based issues such as funding and equipment. In many schools, DRRM information may already be accessible through training modules, DepEd issuances, or digital platforms, making it a relatively less severe concern compared to physical and financial limitations.

The findings imply that although all indicators are interpreted as Much Serious (MS), resource-related constraints remain the most critical barriers to effective DRRM implementation. This suggests the need for increased budget allocation, improved procurement of emergency equipment, and stronger investment in preparedness infrastructure. Meanwhile, sustaining access to information, improving efficiency in resource distribution, and strengthening time management for DRRM activities should also be addressed.

This finding is supported by the study of Pandapatan, (2024), which emphasized that public schools in the Philippines continue to experience significant constraints in the implementation of Disaster Risk Reduction and Management (DRRM) programs, particularly during challenging conditions such as pandemic restrictions.

4.15 The Test of Significant Agreement on the Rank Orders of the Constraints Encountered in the Implementation of the Disaster Risk Reduction and Management (DRRM) Program

The test of significant agreement on the rank orders of the constraints encountered in the implementation of the Disaster Risk Reduction and Management (DRRM) Program is reflected in Table 15.

Table 15: The Test of Significant Agreement on the Rank Orders of the Constraints Encountered in the Implementation of the Disaster Risk Reduction and Management (DRRM) Program

Indicators	The Constraints Encountered
Sum of squares of the difference	5619.5
Number of Cases	14
Number of Groups	5
Coefficient of Concordance W	0.99
Computed χ^2 Value	64.35
Degree of Freedom	13
Tabular χ^2 value	
0.05	22.36
0.025	24.74
0.01	27.69
0.005	29.82
0.001	34.53
Decision on Alternative Hypothesis H_1	Accepted
Significance of Agreement	0.001

The researcher utilized Kendall's Coefficient of Concordance (W). Based on the statistical results, it can be seen that the Coefficient of Concordance W and the computed χ^2 value yielded to: Constraints Encountered, 0.99 and 64.35, ($p < 0.001$). Thus, the alternative hypothesis was accepted.

The alternative hypothesis was accepted because the computed Kendall's Coefficient of Concordance ($W = 0.99$) and chi-square value ($\chi^2 = 64.35$, $p < 0.001$) indicate a very high and statistically significant level of agreement among the respondents regarding the constraints encountered in the implementation of the Disaster Risk Reduction and Management (DRRM) Program. The coefficient value of 0.99 signifies an almost perfect consensus among the respondents in ranking the identified constraints, while the significant chi-square value confirms that the observed agreement was not due to chance. This means that the respondents consistently perceived the identified issues, particularly those related to budget, facilities, equipment, and personnel, as common challenges affecting DRRM implementation.

The findings imply that the constraints identified in the study is widely recognized and experienced across the different groups of respondents, highlighting the need for immediate and targeted interventions. Since there is strong agreement regarding the seriousness of these constraints, school administrators, policymakers, and education stakeholders may use these findings as a reliable basis for planning and decision-making. Efforts should focus on increasing DRRM funding, improving disaster preparedness facilities and equipment, strengthening personnel capacity, and enhancing stakeholder support to address the barriers that hinder the effective implementation of DRRM programs and to promote safer and more resilient school communities.

5. Conclusion and Recommendations

5.1 Conclusions

The conclusions were summarized as follows:

- The extent of the level of the implementation of the Disaster Risk Reduction and Management (DRRM) Program is Much Implemented.
- There is no significant agreement on the rank orders of the extent of the level of the implementation of the Disaster Risk Reduction and Management (DRRM) Program except on Basic Concepts and Objectives of DRRM and Access to DRRM Information.
- The extent of the capabilities of the school heads in the implementation of the Disaster Risk Reduction and Management (DRRM) Program is Much Capable.
- There is a significant agreement on the rank orders of the extent of the capabilities of the school heads in the implementation of the Disaster Risk Reduction and Management (DRRM) Program except on Infrastructure and Facilities, Early Warning and Evacuation Systems, and Disaster Preparedness Activities.
- The extent of the effectiveness of the implementation of the Disaster Risk Reduction and Management (DRRM) Program is Much Effective.
- There is a significant agreement on the rank orders of the extent of the effectiveness of the implementation of the Disaster Risk Reduction and Management (DRRM) Program except on Timeliness of Emergency Response Actions, School Leadership and DRRM Governance, and Sustainability of DRRM Practices.
- The constraints encountered in the implementation of the Disaster Risk Reduction Management (DRRM) Program are Much Serious.
- There is a highly significant agreement on the rank orders of the constraints encountered in the implementation of the Disaster Risk Reduction Management (DRRM) Program.
- An action plan is formulated based from the findings of the study.

5.2 Recommendations

The following were the recommendations:

- The school heads may sustain current DRRM practices and further enhance implementation through continuous training, monitoring, and resource support.
- The DepEd Division DRRM Coordinators should standardize DRRM implementation guidelines and strengthen coordination among schools.
- The DepEd key officials must provide leadership training and capacity-building programs to further enhance the capabilities of school heads.
- The DRRM focal person must maintain and strengthen existing preparedness systems through regular drills, planning, and collaboration with stakeholders.
- The school heads must sustain effective DRRM practices while prioritizing improvement in sustainability and long-term integration of programs.
- The LGU Disaster Risk Reduction and Management Offices must enhance emergency response systems, strengthen leadership governance, and institutionalize sustainable DRRM practices through policies and regular evaluations.
- The School heads should prioritize addressing the identified constraints by increasing budget allocations, improving disaster preparedness facilities, providing adequate emergency response equipment, and strengthening capacity-building programs for school personnel.
- The DepEd key officials should develop targeted interventions and evidence-based DRRM policies.
- The action plan formulated based from the findings of the study be implemented.

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