



Crisis Management Strategies of School Heads in the Schools Division of Siargao during Natural Disasters

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Abstract

Natural disasters pose persistent threats to school safety, educational continuity, and community resilience in disaster-prone areas such as Siargao. This study examined the crisis management strategies employed by school heads in the Schools Division of Siargao during natural disasters, particularly across pre-crisis, crisis, and post-crisis phases. It assessed planning, prevention and mitigation, preparedness, emergency response, recovery and rehabilitation, continuity of operations, and emotional and motivational support. A mixed-method approach was used, combining survey data from 116 school heads with qualitative responses on challenges, coping mechanisms, and best practices. Quantitative data were analyzed using descriptive statistics, Mann-Whitney U test, and Kruskal-Wallis H test, while qualitative responses were examined using thematic analysis. Findings showed a very high level of crisis management implementation across all phases. Prevention and mitigation obtained the highest mean in the pre-crisis phase, response strategies were strongly implemented during the crisis phase, and continuity of operations obtained the highest overall rating in the post-crisis phase. Most profile-based comparisons revealed no significant differences, suggesting generally consistent crisis management practices across respondent groups. However, qualitative findings identified persistent constraints related to limited resources, communication gaps, insufficient training, emergency-response pressure, and post-disaster recovery concerns. The study concludes that school heads demonstrate strong crisis leadership but require sustained support in resources, training, communication systems, psychosocial care, and stakeholder coordination to strengthen school resilience and continuity of learning.

Keywords: Crisis Management Strategies, School Heads, Natural Disasters, Disaster Preparedness, School Resilience

1. Introduction

Natural disasters repeatedly disrupt Philippine schools, particularly in geographically exposed communities where typhoons, floods, earthquakes, and related hazards affect learners, teachers, facilities, and instructional continuity. In island and coastal areas such as Siargao, schools serve not only as places of learning but also as community anchors before, during, and after emergencies. The work of school heads therefore extends beyond routine instructional leadership. They are expected to lead preparedness activities, coordinate emergency actions, protect learners and personnel, and restore school operations after disruptions.

The Department of Education has institutionalized Disaster Risk Reduction and Management (DRRM) through policy frameworks that place school heads at the center of school-based crisis planning and response. In practice, however, the effectiveness of crisis management depends on the ability of school heads to transform policy requirements into operational systems. This includes maintaining updated plans, conducting drills, ensuring safe



facilities, coordinating with local government units, mobilizing resources, sustaining communication, supporting psychosocial recovery, and implementing alternative learning arrangements when regular classes are disrupted.

Siargao provides an important context for examining school crisis management because it has experienced severe disaster events, including typhoons and post-disaster learning disruption. These experiences highlight the need to understand the actual strategies used by school heads and the extent to which such strategies are implemented across different phases of crisis management. While school-based DRRM policies provide a common mandate, school heads may experience varied challenges depending on school size, location, leadership experience, and resource availability.

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This study contributes to school leadership and disaster education by examining both the reported level of crisis management implementation and the lived operational challenges identified by school heads. It gives attention not only to preparedness and response but also to post-disaster recovery, continuity of operations, and emotional and motivational support. These dimensions are important because the success of school crisis management is measured not only by immediate response but also by the capacity to restore learning, sustain morale, and strengthen resilience after a disaster.

2. Review of Related Literature

School crisis management is commonly understood as a coordinated set of leadership actions undertaken before, during, and after a disruptive event. In disaster-prone educational settings, crisis management requires more than the presence of written plans. It requires school leaders to anticipate risk, organize people, communicate clearly, mobilize resources, protect learners, and restore essential school functions. Literature on educational resilience emphasizes that schools become more capable during emergencies when leadership is supported by preparedness planning, institutional coordination, and community participation.

The DRRM perspective treats schools as active institutions in reducing disaster risks rather than passive recipients of emergency assistance. This means that school heads must promote prevention and mitigation through facility inspection, hazard identification, and safety monitoring. They must also strengthen preparedness through drills, emergency supplies, learner orientation, and teacher training. During disasters, they must activate response teams, coordinate evacuation, and maintain communication with families and local authorities. After disasters, they must lead rehabilitation, learning continuity, and psychosocial recovery.

Crisis leadership literature further emphasizes that the school head must make decisions under uncertainty. Disasters often create conditions where information is incomplete, resources are limited, and pressure from parents, learners, teachers, and community stakeholders is high. Effective crisis leadership therefore depends on preparation, calm decision-making, communication discipline, and the ability to delegate responsibilities. The school head functions as both administrator and crisis coordinator, linking school-level decisions with external support systems such as LGUs, DRRMO, barangay offices, parents, and DepEd authorities.

Another important strand of literature concerns learning continuity. Disasters frequently interrupt face-to-face classes, damage learning spaces, and create attendance and access problems. In this context, school heads must ensure alternative delivery modes, printed modules, temporary learning spaces, flexible schedules, and teacher support. Continuity of operations is therefore a central part of school crisis management because it protects the right to education even when the normal school environment is disrupted.

Psychosocial support has also become a significant component of school-based crisis management. Learners and staff may experience fear, stress, grief, and uncertainty after natural disasters. Effective school leadership must therefore include emotional and motivational support, psychological first aid, referral systems, debriefing, and wellness activities. These actions help restore confidence and stability, making recovery both instructional and emotional.

The reviewed perspectives show that school crisis management is multidimensional. It involves policy compliance, disaster planning, safety management, community coordination, instructional continuity, and psychosocial care.

These areas provide the basis for examining the crisis management strategies of school heads in the Schools Division of Siargao, where school leaders operate in a highly exposed and disaster-prone local context.

3. Theoretical and Conceptual Framework

The study is anchored on three complementary foundations: the Disaster Risk Reduction and Management framework, Fink's Crisis Management Theory, and Transformational Leadership Theory. The DRRM framework provides the operational structure for school-based disaster management, particularly prevention and mitigation, preparedness, response, and recovery and rehabilitation. These areas frame the responsibilities of school heads before, during, and after natural disasters.

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Fink's Crisis Management Theory explains crisis management as a process involving early warning or prodromal conditions, acute crisis response, chronic crisis management, and resolution. This perspective is useful in school settings because disasters do not begin and end only with the event itself. Schools must anticipate risks, respond to immediate danger, manage prolonged disruption, and restore operations while learning from experience.

Transformational Leadership Theory adds the leadership dimension of crisis management. It explains how school heads guide teachers, learners, staff, and community members through motivation, shared responsibility, innovation, and individualized support. In disaster situations, school heads must not only issue instructions but also sustain confidence, calmness, cooperation, and emotional recovery among the school community.

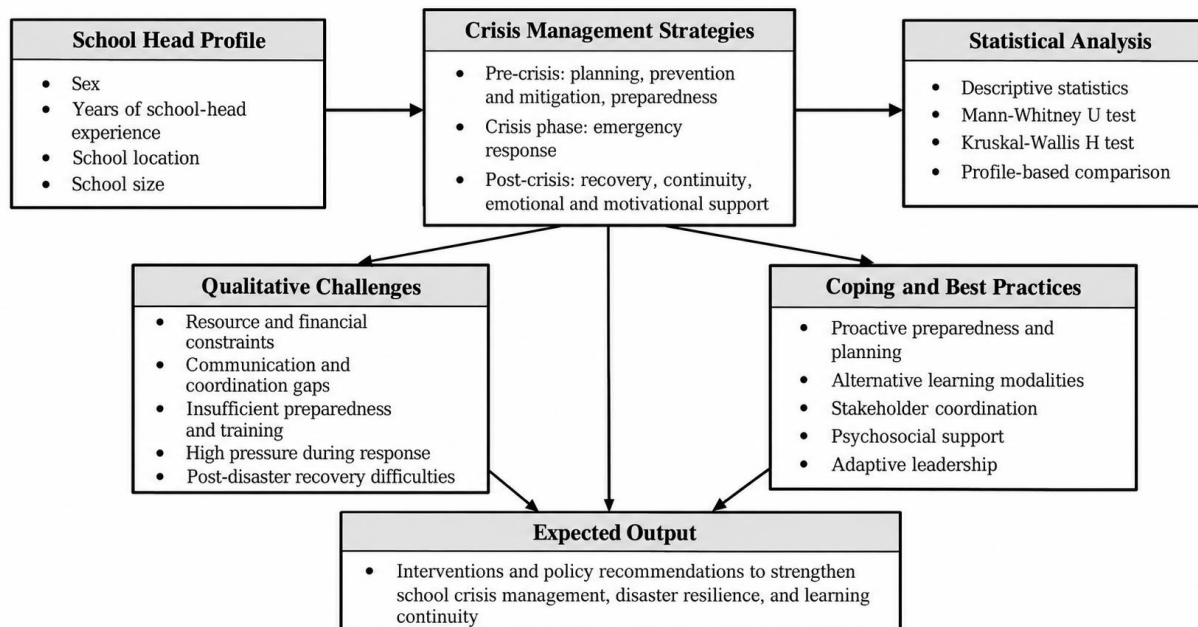


Figure 1. Conceptual framework for crisis management strategies of school heads during natural disasters.

Figure 1 presents the conceptual framework for examining the crisis management strategies of school heads during natural disasters. It shows how school head profile, crisis management strategies, statistical analysis, qualitative challenges, coping practices, and expected outputs are connected in the study.

The framework begins with the school head profile, which includes sex, years of school-head experience, school location, and school size. These variables provide the background for determining whether crisis management strategies differ across school heads with different personal and institutional contexts.

At the center of the framework are the crisis management strategies. These are organized into three phases: pre-crisis, which includes planning, prevention and mitigation, and preparedness; crisis phase, which focuses on emergency response; and post-crisis, which includes recovery, learning continuity, and emotional and motivational support. This component represents the main area assessed in the study.

The framework then connects the crisis management strategies to statistical analysis. Descriptive statistics were used to determine the level of implementation, while the Mann-Whitney U test and Kruskal-Wallis H test were used to examine profile-based differences.

The lower part of the figure shows the qualitative side of the study. Qualitative challenges include resource and financial constraints, communication and coordination gaps, insufficient preparedness and training, high pressure during response, and post-disaster recovery difficulties. These challenges provide deeper context to the quantitative results.

The figure also presents coping and best practices, including proactive preparedness and planning, alternative learning modalities, stakeholder coordination, psychosocial support, and adaptive leadership. These practices show how school heads respond to crisis-related difficulties and maintain school operations during disasters.

Finally, the framework leads to the expected output, which is the development of interventions and policy recommendations to strengthen school crisis management, disaster resilience, and learning continuity. Overall, Figure 1 explains that the study examines both the measurable implementation of crisis management strategies and the lived operational realities of school heads during natural disasters.

4. Objectives of the Study

This study assessed the crisis management strategies employed by school heads in the Schools Division of Siargao during natural disasters. Specifically, it described the respondents' profile in terms of sex, years of experience as school head, school location, and school size; determined the level of crisis management strategies across pre-crisis, crisis, and post-crisis phases; tested significant differences in strategy implementation when grouped according to profile variables; identified the challenges encountered by school heads before, during, and after natural disasters; described coping mechanisms and best practices used to ensure school safety and learning continuity; and proposed interventions and policy recommendations to enhance school heads' crisis management capabilities.

5. Methodology

The study used a simple mixed-method research design. The quantitative component assessed the level of crisis management strategies through a survey questionnaire, while the qualitative component gathered school heads' responses regarding challenges, coping mechanisms, and best practices during disaster situations. This design allowed the study to measure the extent of strategy implementation and to explain the practical realities behind the numerical findings.

The respondents were school heads in the Schools Division of Siargao. Out of 129 school heads in the division, 116 participated in the study. The profile variables included sex, years of experience as school head, school location, and school size. The research instrument measured crisis management strategies in the pre-crisis phase, crisis or emergency response phase, and post-crisis phase. The pre-crisis phase covered planning, prevention and mitigation, and preparedness. The crisis phase covered emergency response. The post-crisis phase covered recovery and rehabilitation, continuity of operations, and emotional and motivational support.

The instrument used a four-point scale with response categories interpreted according to the level of implementation. Quantitative data were analyzed using frequency counts, percentages, means, and standard deviations. Because the normality test supported the use of non-parametric procedures, the Mann-Whitney U test was used for sex-based comparisons, while the Kruskal-Wallis H test was used for comparisons according to years of experience, school location, and school size. Qualitative responses were analyzed thematically by identifying recurring codes, grouping them into themes, and connecting them with quantitative findings.

6. Results and Discussion

The results are presented according to respondent profile, level of crisis management strategies, significant differences, qualitative challenges, coping mechanisms, and proposed policy implications. The discussion

integrates quantitative and qualitative findings to show both the level of implementation and the operational realities experienced by school heads.

Table 1. Profile of the Respondents

Profile	Category	n	%
Sex	Male	54	46.60
Sex	Female	62	53.40
Years of Experience	1-3 years	27	23.30
Years of Experience	4-6 years	18	15.50
Years of Experience	7-9 years	18	15.50
Years of Experience	10 years and above	53	45.70
School Location	Urban/Central	22	19.00
School Location	Island Barangay	24	20.70
School Location	Mainland Barangay	70	60.30
School Size	Small (<100)	43	37.10
School Size	Medium (100-300)	55	47.40
School Size	Large (>300)	18	15.50

Table 1 shows that the respondent group was relatively balanced by sex, with females slightly outnumbering males. Most school heads had extensive leadership experience, as 45.70% reported 10 years or more as school head. Most respondents were assigned to mainland barangays, while the remainder were distributed across urban or central and island barangay schools. In terms of school size, medium-sized schools formed the largest group. These characteristics are important because leadership experience, geographic assignment, and school population may affect crisis preparedness, resource mobilization, and response coordination during natural disasters.

Table 2. Summary of Crisis Management Strategies by Phase

Crisis Management Area	M	Interpretation	Key Finding
Planning	3.42	Strongly Agree	Written DRRM plans, risk assessment, and stakeholder involvement were strongly practiced.
Prevention and Mitigation	3.49	Strongly Agree	Highest pre-crisis rating; school heads emphasized hazard reduction and facility safety.
Preparedness	3.36	Strongly Agree	Drills, orientation, and preparedness activities were practiced, although supplies and training require support.
Emergency Response	3.45	Strongly Agree	School heads activated response teams, communicated with stakeholders, and coordinated with LGUs/DRRMO.
Recovery and Rehabilitation	3.46	Strongly Agree	Class resumption, reporting of rehabilitation needs, and school clean-up were strongly implemented.
Continuity of Operations	3.56	Strongly Agree	Highest overall rating; school heads prioritized alternative delivery modes and learning continuity.
Emotional and Motivational Support	3.42	Strongly Agree	School heads provided encouragement and psychosocial support, but this area still needs strengthening.

Table 2 indicates that the crisis management strategies of school heads were implemented at a very high level across all phases. In the pre-crisis phase, prevention and mitigation obtained the highest mean, suggesting that school heads placed emphasis on reducing risks before disasters occur. This includes structural checks, identification of hazard-prone areas, maintenance of safety equipment, and implementation of safety procedures. Preparedness was also strongly implemented, but the qualitative findings indicate that emergency supplies, training, and updated plans remain recurring needs.

During the crisis phase, emergency response also received a strong rating. School heads reported immediate activation of response teams, evacuation protocols, communication with parents and staff, and coordination with local disaster offices. However, emergency transportation and logistical capacity were relatively weaker, suggesting that operational resources remain essential for effective response. In the post-crisis phase, continuity of operations recorded the highest overall mean, showing that school heads prioritized learning continuity through alternative delivery modes, teacher support, and coordination with stakeholders. This finding is important because it demonstrates that crisis management in schools extends beyond physical safety and includes the protection of instructional continuity.

6.1 Detailed Quantitative Results by Crisis Management Phase

To retain the significant findings of the original study, the following domain-level presentation highlights the most important indicators in each crisis management phase. These results show the concrete practices behind the composite means and clarify which areas are strong and which areas require further improvement.

Table 3. Key Indicators in the Pre-Crisis Phase

Domain	Highest/Key Indicator	Mean	Interpretation	Area for Strengthening
Planning	Involvement of teachers, staff, and community stakeholders in disaster planning	3.54	Highly Implemented	Continue annual updating of crisis management plans and school-level risk assessments.
Prevention and Mitigation	Identification and minimization of hazard-prone areas within or near the school	3.59	Highly Implemented	Sustain facility inspection, drainage checking, roofing checks, and safety-equipment maintenance.
Preparedness	Conduct of regular emergency drills for various hazards	3.54	Highly Implemented	Improve emergency kits, first-aid training, and preparedness supplies.

The pre-crisis findings in Table 3 show that school heads were most active in preventive and anticipatory work. Planning was evident through stakeholder involvement, risk assessment, and the maintenance of written school plans. Prevention and mitigation received the strongest rating among the pre-crisis areas, suggesting that school heads were attentive to environmental safety, hazard identification, and facility-related risk reduction. Preparedness was also highly implemented, particularly through regular drills. However, the findings point to a recurring need for more complete emergency kits, more systematic first-aid training, and stronger preparedness resources, especially in schools exposed to typhoons and island-based disruptions.

These results are important because the pre-crisis phase determines how effectively the school can reduce risks before a disaster escalates. A school with an updated plan, trained personnel, hazard-aware learners, and safe facilities is more likely to respond with order and less panic. The results therefore show that school heads already perform core preparedness functions, but the sustainability of these functions depends on funding, monitoring, stakeholder commitment, and continued capability-building.

Table 4. Key Indicators in the Crisis and Emergency Response Phase

Domain	Highest/Key Indicator	Mean	Interpretation	Operational Concern
Emergency Response	Maintaining regular communication with staff and parents during emergencies	3.53	Highly Implemented	Signal loss and communication breakdowns may still delay updates during severe weather.
Emergency Response	Immediate activation of the emergency response team	3.52	Highly Implemented	Response teams require regular rehearsal and role clarification.
Emergency Response	Implementation of evacuation protocols when needed	3.50	Highly Implemented	Transportation and evacuation logistics require more local support.

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The crisis phase findings in Table 4 show that school heads had strong emergency-response practices. Communication with staff and parents, activation of emergency response teams, and implementation of evacuation protocols were all highly implemented. These actions are crucial because emergency response requires speed, clarity, and coordination. School heads must make decisions under pressure while ensuring that learners, teachers, and staff remain safe. Strong ratings in this area indicate that school heads are able to act quickly and coordinate with school personnel and external actors during disasters.

However, the qualitative results clarify that emergency response is also one of the most stressful parts of school leadership during disasters. Signal loss, road conditions, disrupted transportation, and limited supplies can weaken even well-planned response systems. For this reason, emergency-response competence should not be viewed only as the ability of school heads to lead, but also as the capacity of the school system to provide communication support, transportation arrangements, emergency supplies, and coordination channels with LGUs and DRRMO.

Table 5. Key Indicators in the Post-Crisis Phase

Domain	Highest/Key Indicator	Mean	Interpretation	Area for Strengthening
Recovery and Rehabilitation	Reporting rehabilitation needs to DepEd and local government units	3.62	Highly Implemented	Ensure faster repair support and clearer post-disaster documentation.
Continuity of Operations	Activation of alternative delivery modes such as modular or blended learning	3.65	Highly Implemented	Provide ready-to-use learning packets and continuity templates.
Emotional and Motivational Support	Acknowledging and appreciating staff efforts during and after disasters	3.53	Highly Implemented	Strengthen structured psychosocial first aid and referral systems.

As shown in Table 5, the post-crisis phase obtained some of the strongest ratings in the study. Recovery and rehabilitation were evident through class resumption, reporting of rehabilitation needs, clean-up, and coordination with DepEd and LGUs. Continuity of operations obtained the highest overall mean, showing that school heads were strongly committed to keeping education moving even when physical classrooms or regular schedules were disrupted. The activation of modular or blended learning strategies illustrates practical adaptation to crisis conditions.

The post-crisis findings also highlight the human dimension of disaster recovery. Emotional and motivational support was highly implemented, but it remains an area that needs stronger structure and institutional support. Teachers and learners may experience stress, fear, loss, and fatigue after disasters. School heads often provide encouragement and informal support, but formal psychosocial first aid, counseling referral systems, and debriefing programs are needed to make emotional recovery more systematic and sustainable.

Table 6. Significant Difference in Crisis Management Strategies by Profile Variables

Profile Variable	Test Used	General Result	Decision/Interpretation
Sex	Mann-Whitney U	Mostly not significant; selected post-crisis dimensions showed differences.	Do not reject the null hypothesis for most dimensions; note variations in recovery and continuity.
Years of Experience	Kruskal-Wallis H	No significant differences across crisis management dimensions.	Do not reject the null hypothesis.
School Location	Kruskal-Wallis H	No significant differences across crisis management dimensions.	Do not reject the null hypothesis.
School Size	Kruskal-Wallis H	No significant differences across crisis management dimensions.	Do not reject the null hypothesis.

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Table 6 summarizes the profile-based comparison of crisis management strategies. The results generally show that crisis management practices were consistently implemented regardless of sex, years of experience, school location, and school size. This suggests that school heads across the division follow similar crisis management expectations and are guided by common DRRM policies. The limited differences found in selected post-crisis areas, particularly recovery and continuity when grouped according to sex, indicate that some variations may still exist in how school heads approach post-disaster restoration and learning continuity. However, the overall pattern points to a largely uniform crisis management system across respondent groups.

Table 7. Qualitative Challenges Encountered by School Heads

Theme	Main Codes	Meaning for Crisis Management
Resource and Financial Constraints	Limited funds; lack of supplies; delayed recovery support	Resource gaps affect emergency kits, school repairs, transportation, and immediate post-disaster needs.
Communication and Coordination Gaps	Signal loss; delayed LGU coordination; poor updates	Communication failure weakens rapid response, parent updates, and coordination during typhoons and emergencies.
Insufficient Preparedness and Training	Limited training; outdated plans; low awareness	Preparedness cannot rely on plans alone; continuous training and updating are needed.
High Pressure During Emergency Response	Stress; panic; quick decision difficulty	School heads carry heavy responsibility in ensuring learner safety under uncertain conditions.
Post-Disaster Recovery Difficulties	Damaged learning spaces; delayed class resumption; emotional distress	Recovery involves both facility restoration and psychosocial stabilization of learners and staff.

Table 7 shows that the main challenges encountered by school heads were interrelated. Resource and financial constraints affected preparedness, response, and recovery. When schools lacked emergency supplies, transportation support, and funds for repairs, school heads were forced to rely on improvisation and external assistance. Communication and coordination gaps were also critical because signal loss and delayed updates can weaken evacuation, parent notification, and response coordination. These challenges are particularly relevant in island and disaster-prone settings where access and infrastructure may be disrupted during severe weather events.

The qualitative findings also show that preparedness is not only a matter of having written plans. School heads noted the importance of training, updated DRRM plans, and stakeholder awareness. During emergencies, they

experienced high pressure in making rapid decisions, managing evacuation, and ensuring that learners, teachers, and staff were safe. After disasters, recovery difficulties were linked to damaged classrooms, disrupted learning environments, and the need for emotional support. This means that crisis management must be treated as a holistic leadership function covering logistics, communication, psychosocial care, and educational continuity.

Table 8. Coping Mechanisms and Best Practices of School Heads

Domain	Best Practices	Contribution to School Resilience
Proactive Preparedness and Planning	Regular DRRM updates, drills, training, and risk assessment	Builds readiness and reduces uncertainty before disasters.
Alternative Learning Modalities	Printed modules, modular learning, and flexible delivery	Sustains learning when regular classes are suspended or disrupted.
Stakeholder Coordination and Communication	Coordination with LGUs, barangay officials, parents, and community partners	Mobilizes resources and improves collective response.
Psychosocial Support and Emotional Recovery	Counseling, debriefing, motivation, and emotional support	Supports learner and staff well-being after disaster experiences.
Adaptive Leadership	Calm decision-making, flexibility, and practical problem solving	Allows school heads to adjust strategies under changing crisis conditions.

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Table 8 presents the coping mechanisms and best practices used by school heads. These practices show that school heads did not merely comply with disaster policies but actively adapted to the realities of disaster situations. Proactive preparedness and planning reduced uncertainty before disasters, while alternative learning modalities helped ensure that instruction continued despite class suspension, damaged facilities, or limited connectivity. Stakeholder coordination also emerged as a key strategy because crisis management requires the support of parents, barangay officials, LGUs, DRRMO, and community partners.

Psychosocial support and adaptive leadership were equally important. Disasters affect not only school buildings but also the emotional condition of learners, teachers, and staff. School heads therefore provided encouragement, counseling, debriefing, and motivational support. Adaptive leadership was evident in their ability to remain calm, make quick decisions, and adjust school operations to changing circumstances. These findings show that crisis management is both administrative and human-centered.

7. Policy and Practice Implications

The findings have direct implications for division-level DRRM planning. First, professional development for school heads should move beyond one-time orientation sessions and should include simulation-based training, scenario planning, tabletop exercises, communication drills, and post-disaster recovery planning. These activities can help school heads translate policy knowledge into practical decision-making during actual emergencies.

Second, the division may develop a minimum school crisis-readiness package that includes updated contact directories, emergency communication templates, inventory checklists, evacuation monitoring forms, psychosocial support referral pathways, and learning-continuity templates. Such tools would reduce the burden on individual school heads and create more uniform preparedness across small, medium, large, central, mainland, and island schools.

Third, the findings support the need for stronger external coordination. Schools cannot manage natural disasters independently, especially when transportation, communication, and infrastructure are affected. Formal partnership protocols with LGUs, barangay disaster councils, local health offices, and parent groups can improve resource mobilization and response speed. These partnerships should be defined before disasters occur so that roles are clear during emergencies.

Finally, school-based crisis management should be monitored as a continuing governance practice. Regular monitoring should examine not only whether schools conduct drills or maintain plans, but also whether supplies are functional, communication systems are updated, learners know procedures, personnel understand their roles, and recovery mechanisms are realistic. This will help ensure that crisis management remains active, practical, and responsive to the disaster context of Siargao.

8. Integrated Discussion

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The quantitative findings show that school heads reported a very high level of crisis management implementation across pre-crisis, crisis, and post-crisis phases. This suggests that school heads in the Schools Division of Siargao have internalized their disaster-related leadership responsibilities and have established practices for planning, prevention, preparedness, response, recovery, learning continuity, and emotional support. The strongest area was continuity of operations, which indicates that learning continuity is treated as a major leadership priority after disasters.

At the same time, the qualitative findings reveal that high implementation ratings do not mean the absence of implementation constraints. School heads continue to face limitations in funding, emergency supplies, communication systems, training opportunities, and recovery resources. This contrast is important because it shows that school heads may be highly committed and active in implementing crisis management strategies even when institutional resources remain limited. Therefore, the findings should not be interpreted as evidence that current support systems are already sufficient. Rather, they show that strong leadership exists but must be reinforced by stronger systems.

The absence of broad significant differences across profile variables suggests that crisis management expectations are relatively standardized across school heads. This may be linked to common DepEd mandates and division-wide DRRM expectations. However, context still matters. Mainland, central, and island schools may face different practical conditions during emergencies, even when their reported implementation ratings appear similar. Likewise, small, medium, and large schools may require different kinds of support because the scale of learners, staff, facilities, and logistics affects actual crisis management.

The findings further emphasize the importance of moving from compliance-oriented DRRM to resilience-based school leadership. Compliance ensures that schools maintain plans, conduct drills, and report activities. Resilience-based leadership, however, requires school heads to anticipate risks, mobilize people, communicate effectively, protect psychological well-being, and restore learning in ways that respond to local conditions. For disaster-prone areas like Siargao, this shift is necessary to sustain school operations before, during, and after crises.

Table 9. Proposed Enhancement Measures for Crisis Management Capacity

Area for Enhancement	Proposed Measure	Expected Result
Psychosocial support	Establish structured school-based psychosocial support, psychological first aid, debriefing, and wellness activities.	Improved emotional recovery of learners, teachers, and staff.
Leadership capacity	Conduct continuous training on crisis leadership, emergency response, risk communication, and recovery planning.	More confident and competent school heads during disaster situations.
Stakeholder partnership	Formalize coordination with LGUs, barangay officials, DRRMO, NGOs, parents, and community partners.	Faster mobilization of support before, during, and after disasters.
Resource management	Allocate available school funds strategically and seek additional support for emergency supplies and minor risk-reduction interventions.	Improved logistical readiness and reduced response delays.
Communication systems	Maintain updated contact databases, emergency communication protocols, and group messaging systems.	Clearer and faster information flow during emergencies.
Monitoring and	Institutionalize regular review of DRRM plans, drills,	Continuous improvement of

evaluation	response activities, and post-disaster reports.	crisis management practices.
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Table 9 translates the findings into enhancement measures. The proposed interventions are intended to strengthen rather than replace existing DRRM practices. Since school heads already demonstrate strong crisis management implementation, the next step is to institutionalize systems that address recurring gaps. These include psychosocial support, leadership training, partnerships, resource mobilization, communication systems, and monitoring mechanisms. The expected result is a more adaptive and resilient school system that can protect learners and sustain education during repeated disaster events.

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9. Conclusion

The study concludes that school heads in the Schools Division of Siargao demonstrate a very high level of crisis management implementation across pre-crisis, crisis, and post-crisis phases. Their practices reflect strong engagement in planning, prevention and mitigation, preparedness, emergency response, recovery and rehabilitation, continuity of operations, and emotional and motivational support. The strongest finding is the high priority given to continuity of operations, showing that school heads are strongly committed to sustaining learning even after disasters. Profile-based comparisons generally showed no significant differences, indicating that crisis management practices are largely consistent across sex, experience, school location, and school size. However, qualitative findings reveal persistent challenges such as resource and financial constraints, communication gaps, limited training, emergency-response pressure, and post-disaster recovery difficulties. Therefore, while school heads show strong crisis leadership, their effectiveness can be further strengthened through sustained capacity-building, improved logistical support, stronger communication systems, deeper stakeholder collaboration, and structured psychosocial support mechanisms.

10. Recommendations

Based on the findings and conclusion, the study recommends that the Schools Division of Siargao strengthen crisis management capacity through continuous professional development for school heads, particularly in disaster leadership, risk communication, resource management, emergency response, and recovery planning. Schools should also improve psychosocial support mechanisms by providing psychological first aid, debriefing sessions, counseling referrals, and wellness activities for learners, teachers, and school personnel after disasters. Since resource constraints remain a recurring challenge, school heads and division officials should maximize available MOOE resources, mobilize community support, and strengthen partnerships with LGUs, DRRMO, barangay officials, NGOs, and parent groups to ensure timely provision of emergency supplies, communication tools, and recovery support. Schools should also establish updated communication protocols, contact databases, and alternative communication channels to address signal loss and coordination delays during emergencies. Finally, DRRM monitoring and evaluation should be institutionalized so that school crisis management practices are regularly reviewed, gaps are identified, and improvements are integrated into school planning and division-level policy support.

Declarations

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CRedit Authorship Contribution Statement

Lucas S. Ibilla: Conceptualization, methodology, investigation, data collection, formal analysis, writing—original draft, and writing—review and editing.

Regemie A. Alburo: Supervision, validation, methodology review, and writing—review and editing.

Ethical Statement

The study was conducted in accordance with ethical standards for research involving human participants. Permission to conduct the study was obtained from the concerned school and division authorities. Participation was voluntary, and the respondents were informed of the purpose of the study. Confidentiality, anonymity, and proper handling of data were observed throughout the research process.

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Declaration of Interests

The author declares no known competing financial, personal, or professional interests that could have influenced the conduct, analysis, or reporting of this study.

Data Availability

The data supporting the findings of this study are available from the corresponding author upon reasonable request, subject to institutional approval and ethical restrictions concerning respondent confidentiality.

AI Usage

Artificial intelligence tools were used only for language editing, grammar refinement, formatting assistance, and improvement of manuscript readability. The author remains fully responsible for the accuracy, integrity, interpretation, and final content of the manuscript.

References

- Aldrich, D. P. (2012). Building resilience: Social capital in post-disaster recovery. University of Chicago Press.
- Asian Development Bank. (2020). Disaster resilience in Asia and the Pacific.
- Bass, B. M. (1985). Leadership and performance beyond expectations. Free Press.
- Bautista, J. (2022). The level of preparedness of the School Disaster Risk Reduction and Management team of public secondary schools in the Division of Manila. GRIN Verlag.
- Boin, A., Hart, P. t., Stern, E., & Sundelius, B. (2013). The politics of crisis management: Public leadership under pressure. Cambridge University Press.
- Burns, J. M. (1978). Leadership. Harper & Row.
- Creswell, J. W. (2014). Research design: Qualitative, quantitative, and mixed methods approaches. SAGE Publications.
- Day, C., & Gu, Q. (2014). Resilient teachers, resilient schools. Routledge.
- Department of Education. (2015). Comprehensive disaster risk reduction and management manual. Department of Education.
- Department of Education. (2015). DepEd Order No. 21, s. 2015: Disaster risk reduction and management coordination and information management protocol. Department of Education.
- Department of Education. (2015). DepEd Order No. 37, s. 2015: The comprehensive disaster risk reduction and management in basic education framework. Department of Education.
- Department of Education. (2015). DepEd Order No. 44, s. 2015: Guidelines on the enhanced school improvement planning process and the school report card. Department of Education.
- Fink, S. (1986). Crisis management: Planning for the inevitable. AMACOM.
- Fullan, M. (2001). Leading in a culture of change. Jossey-Bass.



Masten, A. S., & Narayan, A. J. (2012). Child development in the context of disaster, war, and terrorism: Pathways of risk and resilience. *Annual Review of Psychology*, 63, 227-257.

Organisation for Economic Co-operation and Development. (2020). The impact of COVID-19 on education: Insights from education at a glance 2020.

Özdemir, G., Şahin, S., & Türkoğlu Özdemir, S. (2024). Behaviors related to primary school principals' crisis management skills: In the context of the February 6th 2023 earthquake. *Problems of Education in the 21st Century*, 82(2), 252-274.

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Peek, L. (2008). Children and disasters: Understanding vulnerability, developing capacities, and promoting resilience. *Children, Youth and Environments*, 18(1), 1-29.

Republic Act No. 10121. (2010). Philippine Disaster Risk Reduction and Management Act of 2010.

UNESCO. (2021). Education in a post-COVID world: Nine ideas for public action.

United Nations Office for Disaster Risk Reduction. (2015). Sendai framework for disaster risk reduction 2015-2030.

United Nations Office for Disaster Risk Reduction. (2019). Global assessment report on disaster risk reduction 2019.

Wisner, B., Blaikie, P., Cannon, T., & Davis, I. (2004). *At risk: Natural hazards, people's vulnerability and disasters*. Routledge.

