

School Leadership Practices as Related to Disaster Risk Reduction Management Implementation among Public Secondary Schools in South Cluster, Division of Cavite Province

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Abstract

Disasters such as earthquakes, typhoons, volcanic eruptions, and other hazards continue to pose significant risks to learners, school personnel, school facilities, and the continuity of education in the Philippines. Effective School Disaster Risk Reduction and Management (SDRRM) therefore requires not only established policies and preparedness mechanisms but also effective leadership from school heads. This study examined the relationship between the leadership practices of school heads and the implementation of School Disaster Risk Reduction and Management among public secondary schools in the South Cluster, Division of Cavite Province. Specifically, it determined the extent of leadership practices in SDRRM planning and crisis management, assessed the extent of SDRRM implementation, and examined the relationship between leadership practices and SDRRM implementation.

The study employed a quantitative descriptive-correlational research design. Data were collected from 150 public secondary school teachers selected through simple random sampling. A researcher-developed questionnaire was used to assess leadership practices and SDRRM implementation. The instrument underwent expert content validation and pilot testing and obtained a Cronbach's alpha coefficient of 0.79. Data were analyzed using descriptive statistics, one-sample t-test, and Pearson Product-Moment Correlation.

Results showed that school heads' leadership practices were implemented to a high extent in both SDRRM planning and crisis management, while SDRRM implementation was assessed to a moderate extent in both planning and crisis management. Pearson correlation analysis revealed a statistically significant moderate positive relationship between leadership practices in SDRRM planning and SDRRM implementation ($r = 0.48, p < .001$), as well as between crisis management leadership practices and SDRRM implementation ($r = 0.45, p < .001$). Based on the findings, a School Disaster Preparedness Enhancement Plan, Project READY (Resilient Education through Advanced Disaster Preparedness and Yielding Safer Schools), was developed to address planning, crisis management, stakeholder coordination, capacity building, communication, monitoring, evaluation, and learning continuity.

Keywords: *leadership practices, disaster preparedness, school disaster risk reduction and management, crisis management, school resilience*

INTRODUCTION

Background and Rationale

A disaster is a serious disruption that significantly affects individuals, communities, and institutions and may result in human, material, economic, or environmental losses that exceed the capacity of those affected to cope using available resources. In the educational setting, disaster preparedness is essential to ensure the safety of learners, school personnel, and facilities while maintaining the continuity of educational services during emergencies and disasters.

The Philippines is highly exposed to natural hazards, including typhoons, earthquakes, floods, landslides, and volcanic hazards. Public schools therefore need systems that allow them to anticipate risks, prepare stakeholders, respond to emergencies, and recover while sustaining learning. These responsibilities make school leadership an important component of disaster preparedness.

The study focused on public secondary schools in the South Cluster of the Division of Cavite Province, covering Tagaytay City, Alfonso, Mendez, Indang, General Emilio Aguinaldo, and Magallanes. The context is particularly relevant because the area is exposed to multiple hazards, including seismic and volcanic risks associated with Taal Volcano, as well as typhoons and rainfall-related hazards.

Republic Act No. 10121, or the Philippine Disaster Risk Reduction and Management Act of 2010, established a comprehensive and proactive approach to disaster risk reduction and management. In the education sector, DepEd policies institutionalize school-based DRRM, preparedness planning, emergency drills, risk communication, stakeholder coordination, and continuity of learning.

School heads have a central role in translating these policies into school-level action. Their responsibilities include planning, organizing, coordinating, communicating, making decisions during emergencies, mobilizing stakeholders, and monitoring preparedness and recovery activities. Effective leadership is therefore relevant to the capacity of schools to maintain preparedness and resilience.

Existing literature reviewed in the thesis emphasizes the importance of leadership, crisis management, preparedness planning, communication, stakeholder collaboration, and resilience. However, the relationship between school leadership practices and SDRRM implementation remains important to examine within the specific context of public secondary schools in the South Cluster of the Division of Cavite Province.

The study was anchored on Situational Leadership Theory, Systems Theory, and the Disaster Risk Reduction and Management Framework. Situational Leadership Theory emphasizes adapting leadership behavior to the needs of a particular situation. Systems Theory views the school as an interconnected system in which school heads, teachers, learners, parents,

local government units, and response agencies interact. The DRRM Framework provides the broader basis for prevention, mitigation, preparedness, response, recovery, and resilience.

Research Objectives

The study aimed to examine the relationship between school leadership practices and SDRRM implementation among public secondary schools in the South Cluster, Division of Cavite Province. Specifically, it sought to:

1. determine the extent of school heads' leadership practices in SDRRM in terms of planning and crisis management;
2. determine the extent of SDRRM implementation in terms of planning and crisis management;
3. determine whether a significant relationship exists between school leadership practices and SDRRM implementation; and
4. develop a School Disaster Preparedness Enhancement Plan based on the findings.

Hypothesis

The study tested the null hypothesis that there is no significant relationship between the leadership practices of school heads in terms of planning and crisis management and the extent of School Disaster Risk Reduction and Management implementation.

Scope and Delimitations

The study examined the leadership practices of school heads as perceived by teachers and their relationship to SDRRM implementation in selected public secondary schools in the South Cluster, Division of Cavite Province. It focused on leadership practices in planning and crisis management and SDRRM implementation in planning and crisis management. The study did not cover private schools, schools outside Cavite Province, qualitative interviews, direct observations, physical facility assessments, or actual disaster-event evaluations. Other possible factors such as funding, infrastructure, external support, and broader community engagement were not included in the analysis.

METHODS

Research Design

The study employed a quantitative descriptive-correlational research design. The descriptive component determined the extent of leadership practices of school heads and SDRRM

implementation, while the correlational component examined whether a significant relationship existed between the two variables.

Participants and Sampling

The respondents consisted of 150 public secondary school teachers from the South Cluster in the Division of Cavite Province. Simple random sampling was used, giving eligible teachers an equal opportunity to be selected. The participating teachers were involved in school-based SDRRM programs and were positioned to assess leadership practices and implementation in their respective schools.

Research Instrument

A researcher-developed questionnaire served as the primary data-gathering instrument. It consisted of two parts. Part I measured leadership practices of school heads in relation to SDRRM planning and crisis management. Part II measured SDRRM implementation in planning and rehearsals and crisis management. The questionnaire used a five-point Likert scale.

Weight	Descriptive Level	Interpretation
5	Very High Extent	Fully Implemented and Consistently Practiced
4	High Extent	Implemented and Frequently Practiced
3	Moderately Extent	Partially Implemented and Occasionally Practiced
2	Low Extent	Minimally Implemented and Rarely Practiced
1	Very Low Extent	Not Implemented and Not Practiced

Validity and Reliability

The questionnaire underwent content validation by three experts who evaluated the relevance, clarity, appropriateness, organization, and alignment of the items with the study objectives and variables. A pilot test was conducted among respondents with characteristics similar to the target population but who were not included in the actual study. The instrument obtained a Cronbach's alpha coefficient of 0.79, indicating acceptable internal consistency.

Data Gathering Procedure

The researcher sought approval to conduct the study from the Schools Division Office of Cavite Province and coordinated with the participating schools. Respondents were informed of the study's purpose, voluntary participation, confidentiality, and academic use of the information. Informed consent was secured before data collection. Questionnaires were administered personally or through appropriate online platforms. Completed questionnaires were checked, encoded, organized, and subjected to statistical analysis.

Statistical Analysis

Descriptive statistics were used to summarize the responses. A one-sample t-test was used to determine whether the observed means differed significantly from the criterion mean of 3.50. Pearson Product-Moment Correlation Coefficient was used to determine the relationship between leadership practices and SDRRM implementation. The level of significance was set at 0.05.

RESULTS

Leadership Practices in SDRRM Planning

Leadership practices in SDRRM planning obtained a composite mean of 3.92, interpreted as High Extent. The findings indicate that school heads generally demonstrated active leadership in preparedness planning, hazard-based planning, alignment with DepEd policies, and preparedness activities. The one-sample t-test produced a computed t-value of 1.49.

Leadership Practices in Crisis Management

Leadership practices in crisis management obtained a composite mean of 3.85, interpreted as High Extent. The highest-rated practices included immediate activation of the School DRRM Team during earthquake, typhoon, or volcanic eruption warnings and implementation of established emergency protocols. The computed t-value was 5.04, exceeding the critical value reported in the thesis.

SDRRM Implementation in Planning

SDRRM implementation in planning obtained a composite mean of 3.10, interpreted as Moderate Extent. The results indicate that essential preparedness measures were implemented, but areas such as teachers' regular participation in DRRM and emergency preparedness training and prompt dissemination of official advisories require further strengthening. The computed t-value was 1.53.

SDRRM Implementation in Crisis Management

SDRRM implementation in crisis management obtained a composite mean of 3.11, interpreted as Moderate Extent. Higher-rated practices included safety inspections after disasters, damage and rapid needs assessment, and functional warning and communication systems. Areas requiring further strengthening included coordination with external response agencies and consistent observance of evacuation and safety procedures. The computed t-value was 1.92.

Relationship Between Leadership Practices and SDRRM Implementation

Leadership Dimension	Leadership Mean	Implementation Mean	R	p-value	Interpretation
SDRRM Planning	3.92	3.10	0.48	< .001	Moderate Positive Significant Correlation
Crisis Management	3.85	3.11	0.45	< .001	Moderate Positive

					Significant Correlation
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Pearson Product-Moment Correlation analysis revealed a statistically significant moderate positive relationship between SDRRM planning leadership practices and SDRRM implementation ($r = 0.48, p < .001$). A statistically significant moderate positive relationship was likewise found between crisis management leadership practices and SDRRM implementation ($r = 0.45, p < .001$). Since both p-values were below 0.05, the null hypothesis was rejected.

DISCUSSION

The high extent of leadership practices in SDRRM planning indicates that school heads generally demonstrate preparedness-oriented leadership behaviors. The findings are consistent with the literature reviewed in the thesis emphasizing proactive planning, risk assessment, policy alignment, and stakeholder participation as important dimensions of school disaster preparedness.

The high extent of crisis management leadership suggests that school heads generally activate DRRM structures and implement established emergency protocols. However, comparatively lower indicators concerning the use of official advisories and post-disaster assessment point to areas where evidence-based decision-making and recovery planning may be strengthened.

In contrast, SDRRM implementation was assessed at a moderate extent in both planning and crisis management. This difference between leadership practice ratings and implementation ratings suggests that leadership direction and institutional execution may not always occur at the same level. Teacher capacity-building, emergency communication, stakeholder coordination, and continuous evaluation remain important areas for development.

The statistically significant moderate positive correlations indicate that stronger leadership practices are associated with higher levels of SDRRM implementation among the participating schools. The results are consistent with the study's theoretical premise that leadership operates within a broader school system and that school heads play an important coordinating role in disaster preparedness.

Because the study used a correlational design, the results demonstrate association rather than causation. The findings therefore should not be interpreted as proof that leadership practices alone cause higher SDRRM implementation. Other factors outside the study, such as resources, infrastructure, external support, and community engagement, may also contribute to implementation.

Practical Implications and Enhancement Plan

The findings provided an empirical basis for Project READY (Resilient Education through Advanced Disaster Preparedness and Yielding Safer Schools), a one-school-year SDRRM enhancement program. The plan prioritizes disaster preparedness planning, crisis management, school disaster management, teacher capacity building, and learning continuity.

Intervention Area	Major Activity	Expected Output	Time Frame
Planning	DRRM Planning Enhancement Workshop	Revised School DRRM Plan	June
Planning	After-Action Review (AAR) Workshop	Quarterly Evaluation Report	Quarterly
Crisis Management	Incident Command System (ICS) and RDANA Training	Trained School DRRM Team	July
Crisis Management	Multi-Hazard Simulation Exercise	Improved Emergency Response Procedures	Quarterly
School Disaster Management	Stakeholders' DRRM Summit	Partnership Agreements and Coordination Mechanisms	September
School Disaster Management	Emergency Communication Training	Functional Emergency Communication Protocol	Quarterly
Teacher Capacity Building	SDRRM Professional Development Training for Teachers	SDRRM-trained Teachers	October
Teacher Capacity Building	LAC Session on Disaster Resilience and Flexible Learning	Enhanced Teacher Competencies	Quarterly
Learning Continuity	Learning Continuity Planning Workshop	Updated Learning Continuity Plan	November
Learning Continuity	Flexible Learning and Emergency Resource Development Training	Emergency Learning Resource Packages	Every Term

Conclusion

The study established that school heads' leadership practices in SDRRM planning and crisis management were implemented to a high extent, while SDRRM implementation in planning and crisis management was assessed to a moderate extent. Statistically significant moderate positive relationships were found between leadership practices and SDRRM implementation. The findings provide an empirical basis for strengthening leadership-driven disaster preparedness, teacher capacity-building, stakeholder coordination, emergency communication, monitoring and evaluation, and learning continuity.

Limitations

The study was limited to selected public secondary schools in the South Cluster, Division of Cavite Province and involved 150 teacher-respondents. It relied on teacher perceptions obtained through a structured questionnaire. It did not include private schools, schools outside Cavite Province, qualitative interviews, direct observations, physical facility assessments, or actual disaster-event evaluations. Other factors potentially affecting SDRRM implementation were outside the scope of the analysis.

Recommendations

- Schools may strengthen regular evaluation of DRRM drills and integrate lessons learned into succeeding School DRRM Plans.
- School heads and DRRM teams may improve evidence-based decision-making through systematic use of official disaster advisories and strengthen post-disaster assessment and recovery planning.
- Schools may strengthen coordination with LGUs, MDRRMO, BFP, PNP, and other response agencies and establish reliable emergency communication mechanisms.
- Continuous teacher professional development may be strengthened in disaster preparedness, emergency response, resilience education, psychological first aid, and flexible learning during emergencies.
- Schools may institutionalize regular evaluation of Learning Continuity Plans and integrate lessons learned from emergencies into future learning continuity strategies.
- Future researchers may examine additional factors such as resources, infrastructure, organizational resilience, stakeholder participation, school safety culture, and disaster preparedness competencies using mixed-methods or longitudinal designs.

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