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Empirical Assessment of the School Planning in Instructional Resilience During Emergencies: Basis for an Enhanced Continuity Educational Program

Reena Mae P. Obregon
Doctor of Education Major in Educational Management and Development, Cebu Technological University - Main Campus, Cebu City, Philippines

Email: mhaeobregon@gmail.com

ABSTRACT

This study examined school continuity planning and its relationship with learning continuity resilience during emergencies in public elementary schools in Carmen I District, Schools Division of Bohol, Philippines, during School Year 2026–2027. Employing a descriptive-correlational research design and total enumeration, data were gathered from 110 respondents comprising five school heads and 105 teachers through an adapted and modified structured questionnaire. Descriptive statistics and Pearson's product-moment correlation were utilized for data analysis. Findings revealed that school continuity planning was strongly implemented (M = 4.63), while learning continuity resilience was very high (M = 4.69). Alternative learning delivery arrangements and instructional adaptability and flexibility emerged as the strongest dimensions, whereas logistical preparedness and resource accessibility received the lowest relative ratings. A very strong positive and statistically significant relationship was established between school continuity planning and learning continuity resilience (r = 0.83, p = .001). However, connectivity and power interruptions, financial and logistical limitations, and communication difficulties remained prominent challenges. The study concludes that systematic continuity planning is closely associated with greater educational resilience during emergencies. Accordingly, implementing and evaluating the proposed Enhanced Continuity Educational Program is recommended, emphasizing resource preparedness, teacher capacity-building, and stakeholder coordination. The localized setting, perception-based assessments, and correlational design limit generalizability and causal interpretation. The study provides an empirical foundation for strengthening emergency education management, supporting SDG 4 (Quality Education), SDG 11 (Sustainable Cities and Communities), SDG 13 (Climate Action), and SDG 17 (Partnerships for the Goals), while promoting educational, institutional, and community sustainability.

Keywords: *Disaster Preparedness, Educational Recovery, Emergency Education, Instructional Adaptability, Learning Continuity Resilience, School Continuity Planning, Stakeholder Coordination*

1. INTRODUCTION

Educational continuity remains a fundamental responsibility of schools during disasters, emergencies, and other disruptions. Typhoons, floods, earthquakes, extreme heat, health emergencies, and infrastructure disruptions threaten learner safety, instructional delivery, and access to education. The Global Alliance for Disaster Risk Reduction and Resilience in the Education Sector (GADRRRES, 2022) emphasizes systematic preparedness, educational continuity, and resilience-building. Furthermore, the World Bank (2024) reported that more than 400 million students experienced climate-related school closures from 2022 onward, while UNICEF (2026) identified at least 171 million students affected by climate-related educational disruptions in 2025. School continuity planning involves risk assessment, contingency planning, stakeholder coordination, communication, alternative learning arrangements, resource mobilization, and educational recovery. Correspondingly, learning continuity resilience reflects schools' capacity to adapt, sustain instruction, and restore educational services during emergencies. These capacities require effective leadership, teacher preparedness, accessible resources, and community participation (Nakum et al., 2022; Mutch, 2023; Heikonen et al., 2024; Godfrey & Munoz-Chereau, 2024). In the Philippines, the Department of Education institutionalized learning continuity mechanisms through policies supporting alternative learning delivery, disaster preparedness, learner protection, and educational recovery (Department of Education, 2024, 2026). Nevertheless, challenges involving financial resources, stakeholder participation, communication, and policy implementation persist (UNICEF Philippines, 2022; Peregrino et al., 2022; Domingo et al., 2023). Against this background, the study examined school continuity planning and learning continuity resilience during emergencies in public elementary schools in Carmen I District, Schools Division of Bohol, as a basis for developing an Enhanced Continuity Educational Program.

Research Problem

Emergencies disrupt instructional delivery, learner participation, assessment, communication, and access to educational resources. Although schools implement continuity plans, their effectiveness may be constrained by inadequate preparedness, limited resources, insufficient training, and unequal learner access (Peregrino et al., 2022; Ordinario, 2022; Rabor et al., 2022). Similarly, technical and financial challenges, resource limitations, and organizational concerns affect the implementation of educational continuity measures (Domingo et al., 2023; Espinosa, 2023; Macasinag & Camacho, 2023). Moreover, effective emergency preparedness requires coordinated leadership, capacity-building, stakeholder participation, and regularly reviewed continuity mechanisms (Fuentes, 2023; Escoto & Hussien, 2024; Valdez-La Corda, 2024; Altarejos, 2026). However, existing Philippine studies have primarily focused on pandemic-related learning continuity, alternative delivery modalities, and disaster preparedness. Limited empirical evidence examines the relationship between comprehensive school continuity planning and multidimensional learning continuity resilience across different types of emergencies, particularly in Carmen I District, Bohol. This study addressed this gap to establish an empirical foundation for a context-responsive Enhanced Continuity Educational Program.

Assumptions of the Study

The study assumed that systematic school continuity planning is associated with greater capacity to maintain, adapt, and restore educational services during emergencies. Effective risk assessment, coordinated leadership, communication, resource preparedness, instructional flexibility, and recovery mechanisms may support learning continuity resilience (GADRRRES, 2022; Nakum et al., 2022; Heikonen et al., 2024; Godfrey & Munoz-Chereau, 2024). Accordingly, the study tested the null hypothesis that there is no significant relationship between the extent

of implementation of school continuity planning and the level of learning continuity resilience during emergencies.

Objectives of the Study

This study aimed to assess school continuity planning and learning continuity resilience during emergencies among school heads and teachers in public elementary schools in Carmen I District, Schools Division of Bohol, during School Year 2026–2027. Specifically, it sought to describe respondents' demographic and professional profiles, disaster risk reduction and management responsibilities, relevant training, and disaster experiences; determine the extent of school continuity planning implementation; and assess learning continuity resilience across its respective dimensions. Furthermore, it examined the significant relationship between the two variables and identified challenges encountered in sustaining instruction during emergencies. Ultimately, the findings served as the basis for developing an Enhanced Continuity Educational Program.

Theoretical or Conceptual Basis

The study was anchored in complementary theoretical perspectives explaining school continuity planning and learning continuity resilience. Resilience Theory and the Multisystemic Resilience Perspective emphasize adaptation through interconnected individuals, institutions, and communities (Masten et al., 2023). Organizational Resilience Theory and Adaptive Capacity Theory highlight preparedness, organizational learning, and flexible, risk-informed decision-making (Godfrey & Munoz-Chereau, 2024; Nakum et al., 2022). Furthermore, Crisis Management Theory emphasizes coordinated preparedness, response, and recovery (Coombs, 2022), while Social Capital Theory and Collective Efficacy Theory recognize stakeholder collaboration, trust, and shared professional competence (Mutch, 2023; Heikonen et al., 2024). Complementing these perspectives, Experiential Learning Theory emphasizes learning through training, reflection, and disaster experiences (Horton et al., 2023), while the Continuity of Learning and integrated continuity and resilience management perspectives highlight sustained educational access, adaptation, and recovery (Akkari & Radhouane, 2023; Steen et al., 2024). Conceptually, school continuity planning encompasses risk assessment and preparedness planning; leadership, roles, and coordination; communication and information management; alternative learning delivery arrangements; learning resources and logistical preparedness; and recovery, monitoring, evaluation, and plan review (GADRRRES, 2022; INEE, 2024; Nakum et al., 2022). Correspondingly, learning continuity resilience encompasses instructional adaptability and flexibility; learner access, participation, and engagement; teacher preparedness and capacity; availability and accessibility of learning resources; continuity of assessment and learner progress monitoring; and educational recovery and learner support (UNESCO, 2023; Lansangan & Orleans, 2023; Heikonen et al., 2024; World Bank, 2024). The study is further supported by the Comprehensive School Safety Framework 2022–2030 and the Minimum Standards for Education: Preparedness, Response, Recovery (GADRRRES, 2022; INEE, 2024). Similarly, DepEd Order No. 012, s. 2022, DepEd Order No. 022, s. 2024, and DepEd Order No. 014, s. 2026 reinforce resource preparedness, learner protection, and educational continuity. Collectively, these theoretical, conceptual, and policy foundations support the examination of school continuity planning and learning continuity resilience and the development of an evidence-based Enhanced Continuity Educational Program.

The study primarily aligns with SDG 4 – Quality Education, particularly Target 4.a, through its emphasis on safe, inclusive, accessible, and resilient learning environments during emergencies. Furthermore, it supports SDG 11 – Sustainable Cities and Communities through disaster preparedness, risk reduction, and school-community coordination. Similarly, it

contributes to SDG 13 – Climate Action, particularly Target 13.1, through strengthened institutional resilience and adaptive capacity in responding to climate-related hazards. It also supports SDG 17 – Partnerships for the Goals through stakeholder collaboration involving schools, families, local government units, and community partners. Collectively, the proposed Enhanced Continuity Educational Program promotes educational, institutional, and community sustainability through systematic preparedness, instructional adaptability, equitable access to learning, and educational recovery.

2. METHODOLOGY

Research Design

The study utilized a descriptive-correlational research design to examine respondents' demographic and professional profiles, disaster and risk experiences, school continuity planning practices, learning continuity resilience, and implementation challenges. The descriptive component assessed existing conditions, while the correlational component determined the significant relationship between school continuity planning and learning continuity resilience during emergencies without manipulating the study variables.

Research Locale or Study Setting

The study was conducted in five selected public elementary schools in Carmen I District, Schools Division of Bohol, Philippines, during School Year 2026–2027. These included Carmen I Central Elementary School, Alegria Elementary School, Nueva Fuerza Elementary School, Tamboan Elementary School, and Villaflor Elementary School. These institutions operate under common educational policies and disaster risk reduction and management guidelines, providing an appropriate setting for examining school preparedness, instructional continuity, and educational resilience during emergencies.

Participants or Data Sources

The study employed total enumeration, involving 110 respondents comprising five school heads and 105 teachers. Carmen I Central Elementary School accounted for 33 respondents, Nueva Fuerza Elementary School had 31, Tamboan Elementary School had 18, while Alegria Elementary School and Villaflor Elementary School each had 14. School heads provided administrative perspectives on preparedness, leadership, coordination, and resource management, while teachers contributed instructional perspectives on alternative learning delivery, learner participation, assessment, and educational recovery.

Research Instruments or Materials

The study utilized an adopted and modified structured questionnaire anchored on the Comprehensive School Safety Framework 2022–2030 of GADRRRES (2022), the INEE Minimum Standards for Education: Preparedness, Response, Recovery (2024), and relevant Department of Education policies. The questionnaire consisted of five sections covering demographic and professional profiles, disaster and risk experiences, school continuity planning, learning continuity resilience, and implementation challenges. Separate questionnaire forms were provided for school heads and teachers while maintaining comparable indicators for the major variables. A five-point Likert scale was employed to measure school continuity planning and learning continuity resilience.

Data Gathering Procedure

Prior to data collection, the researcher secured formal permission from the Public Schools District Supervisor of Carmen I District and the participating school heads. Respondents were informed of the study's purpose, procedures, voluntary participation, and confidentiality

provisions. The researcher personally administered the questionnaires in coordination with school authorities to minimize disruptions to regular school activities. Subsequently, completed questionnaires were collected, checked for completeness, coded, organized, and tabulated for statistical analysis.

Data Analysis

The study employed descriptive and inferential statistics. Frequency, percentage, and ranking were used to summarize respondents' profiles, disaster and risk experiences, and implementation challenges. Weighted mean and standard deviation assessed school continuity planning and learning continuity resilience using five numerical ranges: 4.21–5.00 (Very High), 3.41–4.20 (High), 2.61–3.40 (Moderate), 1.81–2.60 (Low), and 1.00–1.80 (Very Low). Furthermore, Pearson's product-moment correlation coefficient was employed to determine the strength, direction, and significance of the relationship between school continuity planning and learning continuity resilience during emergencies.

Ethical Consideration

The study observed ethical research principles, particularly voluntary participation, confidentiality, and responsible data handling. Respondents were informed of the study's purpose and procedures before questionnaire administration. Individual identities were protected, and responses were presented in aggregate form. All collected information was treated confidentially and used exclusively for academic and research purposes.

3. RESULTS AND DISCUSSION

3.1 Demographic and Professional Profile of the Respondents

3.1.1 Age

The largest proportion of respondents belonged to the 35–39 age group (23.64%), followed by those aged 40–44 (21.82%), 30–34 (13.64%), 45–49 (12.73%), 50–54 (11.82%), 25–29 (10.00%), and 55–59 (6.36%). The findings reflect a workforce predominantly composed of individuals in the middle stages of their professional careers. This distribution highlights opportunities for combining professional experience, adaptability, mentoring, and collaborative preparedness in strengthening educational continuity.

3.1.2 Gender

Female respondents constituted the majority (82.73%), while males accounted for 17.27%. Among school heads, 60.00% were male, whereas 84.76% of teachers were female. The findings emphasize the importance of inclusive emergency preparedness and continuity measures that provide equal opportunities for school personnel to participate in leadership, capacity-building, and disaster response activities regardless of gender.

3.1.3 Highest Educational Attainment

Most respondents had earned master's degree units (49.09%), followed by master's degree holders (24.55%), respondents with doctorate units (13.64%), bachelor's degree holders (10.00%), and doctorate degree holders (2.73%). The findings demonstrate substantial academic preparation among school personnel. Nevertheless, academic qualifications should be complemented by specialized training in emergency preparedness, instructional continuity, and educational recovery (GADRRRES, 2022; INEE, 2024).

3.1.4 Length of Service and Teaching Experience

Respondents with 11–15 years of service constituted the largest group (27.27%), followed by those with 16–20 years (23.64%), more than 20 years (20.91%), 6–10 years (15.45%), and 1–5 years (12.73%). The distribution reflects considerable professional experience among school personnel. Experienced educators can contribute institutional knowledge and mentoring, while continuous capacity-building remains important in responding to changing emergency conditions and educational demands.

3.1.5 Current Position or Designation

Teacher III accounted for the largest proportion of respondents (66.36%), followed by Teacher I (17.27%), Master Teacher I (7.27%), School Principal I (3.64%), and Master Teacher II (1.82%). Head Teacher I, Master Teacher III, Teacher V, and Teacher II each represented 0.91%. The findings reflect diverse administrative and instructional responsibilities. Effective educational continuity requires clearly defined responsibilities, coordinated leadership, and active participation among personnel across professional ranks (GADRRRES, 2022; INEE, 2024).

3.1.6 School-Related Disaster Risk Reduction and Management Responsibilities

Among respondents, 67.27% reported specific or inherent disaster risk reduction and management (DRRM) responsibilities, while 32.73% had no specific designation. DRRM committee members accounted for 16.36%, coordinators for 15.45%, communication team members for 14.55%, first aid and emergency response members for 10.91%, evacuation and safety team members for 9.09%, and overall DRRM leadership for 0.91%. The findings indicate substantial participation in school preparedness and emergency management. Nevertheless, strengthening collective responsibility and involving personnel without formal DRRM designations remain important in sustaining coordinated emergency responses.

3.1.7 Relevant Training and Capacity-Building Activities

Most respondents attended one to two relevant training activities (58.18%), followed by those who attended none (24.55%), three to four activities (12.73%), and five or more activities (4.55%). The findings highlight limited exposure to specialized emergency-related professional development among many respondents. Regular training, simulation exercises, and capacity-building activities may strengthen preparedness, instructional flexibility, and coordinated emergency response.

3.2 Disaster and Risk Experiences in Schools

3.2.1 Hydrometeorological Hazards

Typhoons were the most frequently reported hydrometeorological hazard (91.82%), followed by extreme weather conditions (51.82%) and flooding (34.55%). The findings demonstrate substantial exposure to weather-related disruptions that threaten instructional continuity. These conditions emphasize the importance of risk-informed planning, flexible instructional arrangements, and accessible learning resources. Venegas Marin et al. (2024) similarly documented the adverse educational consequences of extreme weather events, reinforcing the need for climate-responsive educational systems.

3.2.2 Geological Hazards

Earthquakes were reported by 90.00% of respondents, including all five school heads.The findings highlight the importance of earthquake preparedness, regular safety drills, contingency planning, and alternative learning arrangements. Schools must maintain appropriate mechanisms for protecting learners and personnel while facilitating educational continuity and recovery when conditions permit.

3.2.3 Fire and Electrical Hazards

Electrical short circuits were the most frequently reported hazard (40.91%), followed by overheating of electrical equipment or wiring (32.73%), equipment malfunction (28.18%), fire threats from nearby structures (18.18%), and fire incidents (8.18%). Meanwhile, 29.09% reported no experience with these hazards. These findings emphasize the importance of preventive maintenance, electrical safety inspections, emergency preparedness, and contingency arrangements to minimize infrastructure-related instructional disruptions.

3.2.4 Health-Related Emergencies

Public health emergencies requiring changes in school operations were reported by 88.18% of respondents, followed by health-related class suspensions (84.55%), infectious disease outbreaks (64.55%), widespread illness among learners or personnel (43.64%), and food- or water-related illnesses (21.82%). Only 4.55% reported no such experiences. The findings demonstrate the importance of integrating health-related contingencies into school continuity planning. Evidence of learning deficits associated with pandemic-related disruptions further highlights the need for flexible instructional delivery, learner monitoring, and educational recovery mechanisms (Betthäuser et al., 2023).

3.2.5 Utility, Infrastructure, and Communication Disruptions

Power interruptions were the most frequently reported disruption (79.09%), followed by internet or mobile communication interruptions (66.36%), water supply interruptions (49.09%), transportation disruptions (41.82%), and damage to school facilities (30.00%). Meanwhile, 7.27% reported no such disruptions. The findings indicate that educational continuity remains vulnerable to infrastructure and communication limitations. Consequently, schools require backup communication systems, accessible non-digital learning materials, and alternative resource distribution mechanisms to sustain instruction during emergencies.

3.2.6 Human-Induced Hazards and Security-Related Incidents

Security threats requiring evacuation, lockdown, or temporary class suspension were reported by 22.73% of respondents, followed by physical violence or serious security incidents (18.18%), civil disturbances (15.45%), armed conflict or community violence (8.18%), and bomb threats or suspicious packages (6.36%). Although these incidents were less frequently reported than natural hazards, they emphasize the importance of comprehensive emergency preparedness that addresses various threats to learner safety, school operations, and instructional continuity.

3.3 Extent of Implementation of School Continuity Planning in Instruction

3.3.1 Risk Assessment and Preparedness Planning

Risk assessment and preparedness planning obtained an overall weighted mean of 4.61 (SD = 0.57), interpreted as Strongly Implemented. Regular disaster preparedness activities and drills received the highest mean of 4.73, while preparing continuity measures before class disruptions obtained the lowest mean of 4.53. The findings indicate established disaster preparedness practices, although advance instructional continuity planning requires further strengthening. Risk-informed decision-making supports systematic preparedness and enables schools to respond appropriately to potential disruptions (Nakum et al., 2022).

3.3.2 Leadership, Roles, and Coordination

Leadership, roles, and coordination obtained an overall weighted mean of 4.62 (SD = 0.55), interpreted as Strongly Implemented. Coordination with barangay officials, local government units, and concerned agencies received the highest mean of 4.70, while providing teachers with appropriate guidance during emergencies obtained the lowest mean of 4.53. The findings

demonstrate strong stakeholder coordination, although instructional guidance requires continued improvement. Effective leadership, professional collaboration, collective efficacy, and community partnerships are essential to strengthening organizational preparedness and educational resilience (GADRRRES, 2022; Heikonen et al., 2024; Mutch, 2023; Godfrey & Munoz-Chereau, 2024; Fuentes, 2023).

3.3.3 Communication and Information Management

Communication and information management obtained an overall weighted mean of 4.67 (SD = 0.54), interpreted as Strongly Implemented. Informing parents about changes in learning arrangements and providing clear learner instructions both received the highest mean of 4.75, while timely announcements regarding class suspensions obtained the lowest mean of 4.51. The findings reflect effective communication practices, although timely dissemination of emergency information remains an area for improvement. Reliable communication systems and established stakeholder networks support coordinated emergency responses and educational continuity (GADRRRES, 2022; INEE, 2024; Mutch, 2023; Altarejos, 2026).

3.3.4 Alternative Learning Delivery Arrangements

Alternative learning delivery arrangements obtained an overall weighted mean of 4.68 (SD = 0.54), interpreted as Strongly Implemented. Identifying alternative ways to sustain instruction received the highest mean of 4.74, while providing appropriate alternatives for learners with limited internet access obtained the lowest mean of 4.60. The findings demonstrate strong instructional continuity arrangements, although equitable access remains a concern. Flexible learning modalities and accessible resources are essential in maintaining education during emergencies (GADRRRES, 2022; INEE, 2024; Peregrino et al., 2022; World Bank, 2024). Furthermore, Angrist et al. (2022) demonstrated the potential of low-technology instructional interventions to sustain learning during school closures.

3.3.5 Learning Resources and Logistical Preparedness

Learning resources and logistical preparedness obtained an overall weighted mean of 4.59 (SD = 0.58), interpreted as Strongly Implemented. Preparing learning materials for class disruptions received the highest mean of 4.63, while ensuring the availability of emergency communication tools obtained the lowest mean of 4.54. The findings indicate favorable resource preparedness, although communication equipment and logistical support require further strengthening. Adequate instructional materials, accessible resources, and efficient distribution mechanisms are essential to effective continuity implementation (GADRRRES, 2022; INEE, 2024; Peregrino et al., 2022; Ordinario, 2022).

3.3.6 Recovery, Monitoring, Evaluation, and Plan Review

Recovery, monitoring, evaluation, and plan review obtained an overall weighted mean of 4.62 (SD = 0.58), interpreted as Strongly Implemented. Applying lessons learned from previous emergencies received the highest mean of 4.67, while regularly reviewing and updating continuity plans obtained the lowest mean of 4.57. The findings demonstrate established monitoring and recovery practices, although regular plan revision requires greater attention. Continuous evaluation, stakeholder feedback, and organizational learning contribute to more responsive continuity planning and institutional resilience (Peregrino et al., 2022; INEE, 2024; Steen et al., 2024).

3.3.7 Overall Extent of Implementation of School Continuity Planning

School continuity planning obtained an overall weighted mean of 4.63 (SD = 0.56), interpreted as Strongly Implemented. Alternative learning delivery arrangements ranked highest (4.68),

followed by communication and information management (4.67), leadership, roles, and coordination (4.62), recovery, monitoring, evaluation, and plan review (4.62), risk assessment and preparedness planning (4.61), and learning resources and logistical preparedness (4.59). The findings demonstrate comprehensive continuity planning across the participating schools, particularly in alternative instructional delivery and communication. Nevertheless, resource preparedness remains a priority for enhancement. These findings reinforce the importance of integrating systematic planning, personnel capacity, stakeholder coordination, and resource mobilization into educational continuity mechanisms (GADRRRES, 2022; Peregrino et al., 2022; INEE, 2024; Rabor et al., 2022).

3.4 Level of Learning Continuity Resilience During Emergencies

3.4.1 Instructional Adaptability and Flexibility

Instructional adaptability and flexibility obtained an overall weighted mean of 4.74 (SD = 0.46), interpreted as Very High. Adjusting instructional strategies during class disruptions received the highest mean of 4.80, while modifying instructional requirements for affected learners obtained the lowest mean of 4.70. The findings demonstrate strong perceived instructional adaptability among teachers. However, differentiated requirements responsive to learners' emergency circumstances require continued attention. Teacher preparedness, flexible instructional approaches, and equitable educational arrangements are essential to sustaining learning during disruptions (GADRRRES, 2022; INEE, 2024; Heikonen et al., 2024; Macasinag & Camacho, 2023).

3.4.2 Learner Access, Participation, and Engagement

Learner access, participation, and engagement obtained an overall weighted mean of 4.69 (SD = 0.51), interpreted as Very High. Providing opportunities to continue learning during emergencies received the highest mean of 4.75, while identifying and assisting learners experiencing participation difficulties obtained the lowest mean of 4.58. The findings reflect favorable efforts to sustain learner participation, although targeted assistance for vulnerable learners requires strengthening. Inclusive educational arrangements, stakeholder participation, and systematic learner monitoring are essential in preventing educational disengagement during emergencies (UNESCO, 2023; UNICEF Philippines, 2022; INEE, 2024; UNICEF, 2026).

3.4.3 Teacher Preparedness and Capacity

Teacher preparedness and capacity obtained an overall weighted mean of 4.73 (SD = 0.49), interpreted as Very High. Adapting learning activities according to available resources received the highest mean of 4.76, while preparedness to implement alternative learning arrangements obtained the lowest mean of 4.69. The findings demonstrate strong perceived teacher preparedness and adaptive capacity. Nevertheless, continuous professional development and practical emergency education training remain important in strengthening alternative instructional delivery. Collective efficacy, risk-informed practices, and institutional support contribute to teacher and school preparedness (Heikonen et al., 2024; Nakum et al., 2022; INEE, 2024).

3.4.4 Availability and Accessibility of Learning Resources

Availability and accessibility of learning resources obtained an overall weighted mean of 4.63 (SD = 0.56), interpreted as Very High. Providing appropriate learning options for learners with limited connectivity and utilizing school and community resources both received the highest mean of 4.65. Meanwhile, providing suitable resource formats and alternative materials both obtained the lowest mean of 4.60. The findings indicate favorable resource accessibility, although alternative materials responsive to diverse learner circumstances require further development. Equitable resource provision, community participation, and accessible instructional materials

support educational continuity and recovery (UNESCO, 2023; UNICEF Philippines, 2022; Espinosa, 2023).

3.4.5 Continuity of Assessment and Learner Progress Monitoring

Continuity of assessment and learner progress monitoring obtained an overall weighted mean of 4.68 (SD = 0.52), interpreted as Very High. Adjusting assessment activities according to emergency conditions received the highest mean of 4.72, while monitoring learner progress during emergencies obtained the lowest mean of 4.65. The findings demonstrate favorable assessment adaptability, although systematic learner progress monitoring requires continued attention. Flexible assessment practices, timely feedback, and appropriate interventions are essential to identifying learning gaps and sustaining educational progress during disruptions (INEE, 2024; UNESCO, 2023; Lansangan & Orleans, 2023).

3.4.6 Educational Recovery and Learner Support

Educational recovery and learner support obtained an overall weighted mean of 4.67 (SD = 0.52), interpreted as Very High. Supporting learners in returning to regular learning routines received the highest mean of 4.71, while providing additional assistance to learners experiencing greater disruption obtained the lowest mean of 4.65. The findings demonstrate established educational recovery mechanisms, although differentiated assistance for severely affected learners requires strengthening. Coordinated remediation, learner monitoring, and institutional support contribute to adaptive educational recovery (UNICEF Philippines, 2022; Nakum et al., 2022; Masten et al., 2023). Moreover, Abrigo et al. (2026) documented adverse learning outcomes associated with disaster-related school closures in the Philippines, reinforcing the importance of targeted recovery interventions.

3.4.7 Overall Level of Learning Continuity Resilience

Learning continuity resilience obtained an overall weighted mean of 4.69 (SD = 0.51), interpreted as Very High. Instructional adaptability and flexibility ranked highest (4.74), followed by teacher preparedness and capacity (4.73), learner access, participation, and engagement (4.69), continuity of assessment and learner progress monitoring (4.68), educational recovery and learner support (4.67), and availability and accessibility of learning resources (4.63). The findings demonstrate strong perceived educational resilience, particularly in instructional adaptability and teacher preparedness. However, resource accessibility remains a priority for improvement. These findings emphasize the importance of integrating adaptive capacity, professional collaboration, accessible resources, and institutional support to sustain education during emergencies (Steen et al., 2024; Heikonen et al., 2024; UNESCO, 2023; Godfrey & Munoz-Chereau, 2024).

3.5 Significant Relationship Between School Continuity Planning and Learning Continuity Resilience

Pearson's product-moment correlation analysis revealed a very strong positive and statistically significant relationship between school continuity planning and learning continuity resilience during emergencies (r = 0.83, p = .001). Since the probability value was below the 0.05 significance level, the null hypothesis was rejected. The findings indicate that stronger implementation of school continuity planning is associated with higher perceived learning continuity resilience. Systematic preparedness, coordinated leadership, teacher capacity, communication, and resource accessibility provide important foundations for resilient educational systems (GADRRRES, 2022; INEE, 2024; Heikonen et al., 2024; Nakum et al., 2022; Godfrey & Munoz-Chereau, 2024). Similarly, Borazon and Chuang (2023) emphasized the

multidimensional nature of educational resilience. Nevertheless, the observed relationship does not establish causality.

3.6 Challenges Encountered in School Continuity Planning and Learning Continuity During Emergencies

Poor internet connectivity and power interruptions emerged as the leading challenge (84.55%), followed by limited financial and logistical resources (74.55%), communication difficulties with learners and parents (61.82%), limited access to digital devices (51.82%), and insufficient learning materials (50.91%). Other challenges included difficulty monitoring learner progress (34.55%), inadequate continuity-plan review (33.64%), additional teacher training needs (31.82%), increasing learning gaps (25.45%), and inconsistent implementation of alternative learning arrangements (19.09%). The findings indicate that technological, financial, logistical, and communication limitations remain significant barriers despite favorable continuity planning and resilience assessments. These concerns highlight the importance of resource mobilization, backup communication systems, accessible learning materials, and systematic preparedness (Domingo et al., 2023; Altarejos, 2026; World Bank, 2024; UNICEF, 2026). Furthermore, strengthening low-technology learning alternatives may help address unequal access to digital resources during emergencies (Angrist et al., 2022).

3.7 Basis for the Enhanced Continuity Educational Program

The findings identified learning resources and logistical preparedness (4.59) and availability and accessibility of learning resources (4.63) as the lowest-rated dimensions of their respective variables. Furthermore, connectivity and power interruptions, financial and logistical limitations, and communication difficulties emerged as the leading implementation challenges. These findings established the priority areas for developing the Enhanced Continuity Educational Program. The results emphasize the importance of integrating resource preparedness, alternative learning delivery, communication systems, teacher capacity-building, learner monitoring, and educational recovery into a comprehensive continuity program. Such measures may strengthen institutional preparedness, equitable learning access, and educational resilience during emergencies (GADRRRES, 2022; INEE, 2024; Nakum et al., 2022; Godfrey & Munoz-Chereau, 2024).

4. CONCLUSIONS AND RECOMMENDATIONS

The study concludes that school continuity planning is strongly implemented and learning continuity resilience is very high among the participating public elementary schools in Carmen I District, Schools Division of Bohol. Alternative learning delivery arrangements and instructional adaptability and flexibility emerged as the strongest dimensions, reflecting schools' preparedness to sustain instruction during emergencies. However, learning resources, logistical preparedness, and resource accessibility remained priority areas for improvement. The very strong and statistically significant positive relationship between school continuity planning and learning continuity resilience indicates that systematic preparedness is closely associated with schools' capacity to maintain, adapt, and restore educational services. Nevertheless, unstable connectivity, power interruptions, financial limitations, and communication difficulties remain significant barriers to effective and equitable educational continuity. Collectively, the findings emphasize the importance of coordinated leadership, teacher preparedness, accessible resources, and institutional support, establishing an empirical foundation for developing an Enhanced Continuity Educational Program.

School administrators should regularly review and operationalize school continuity plans, prioritizing risk assessment, logistical preparedness, communication protocols, alternative

learning delivery, and educational recovery mechanisms. Schools should ensure adequate printed and digital learning materials, reliable backup communication systems, updated contact information, and efficient resource distribution, particularly for learners with limited connectivity and technological access. Furthermore, school heads should strengthen teachers' competencies through Learning Action Cell sessions, emergency drills, mentoring, and specialized training on instructional adaptability, flexible assessment, learner monitoring, and recovery strategies. The Department of Education, Schools Division Office, district supervisors, local government units, and community partners should strengthen financial, technological, logistical, and communication support. The proposed Enhanced Continuity Educational Program should be implemented, regularly monitored, and periodically evaluated to determine its effectiveness. Future researchers should examine its applicability across diverse educational settings and assess its long-term contribution to learning continuity and institutional resilience.

The study was limited to 110 school heads and teachers from five public elementary schools in Carmen I District during School Year 2026–2027, restricting the generalizability of its findings. Moreover, the questionnaire-based assessment relied on respondents' perceptions and did not directly measure learner outcomes or incorporate the perspectives of parents and learners. The descriptive-correlational research design established statistical associations but did not determine causal relationships between the major variables. Furthermore, the proposed Enhanced Continuity Educational Program was not evaluated through an intervention study. Future investigations may employ broader samples, multiple stakeholder perspectives, and longitudinal or experimental approaches to validate the findings and assess program effectiveness.

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