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Communication Efficacy and Attendance Barriers During Weather-Disrupted Class Resumptions: Evidence from a Philippine Public High School

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Abstract

This study examined students' awareness, communication channels, attendance patterns, and factors influencing attendance during the resumption of classes following a weather-related disruption in a public high school. The study was anchored on the Shannon-Weaver Model of Communication, Bandura's Social Cognitive and Self-Efficacy Theory, and Bronfenbrenner's Ecological Systems Theory to explain how communication effectiveness, personal efficacy, and environmental conditions influence attendance behavior. A descriptive quantitative research design was employed. Data were collected from 210 students using a researcher-developed questionnaire. Descriptive statistics, including frequency counts and percentages, were used to analyze the data and describe students' awareness levels, sources of information, attendance behavior, and reasons for attendance or non-attendance during class resumption. Findings revealed that most students (89.5%) were aware of the class resumption announcement, indicating generally effective dissemination of information. Facebook Messenger and chat groups emerged as the dominant communication channel, accounting for 88.6% of reported information sources. Despite the high level of awareness, only 11.43% of students attended the resumed classes, while 88.57% remained absent. Among those who did not attend, bad weather and unsafe travel conditions constituted the most frequently reported reason for absence, followed by functional unawareness of the announcement. Connectivity-related barriers, including poor cellular signal and internet access, also contributed to information gaps among some students. The findings suggest that awareness alone does not guarantee attendance during disruption recovery periods. Students' participation is influenced by the interaction of communication effectiveness, perceived safety, environmental conditions, and access to transportation and information. The study highlights the need for resilient, multi-channel communication systems and context-sensitive strategies that address both informational and environmental barriers to student participation during emergency-related class resumptions.

Keywords: class resumption, student awareness, school communication, attendance, weather disruption, Facebook Messenger, self-efficacy, educational continuity

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INTRODUCTION

Education remains a fundamental right and a critical mechanism for individual and societal development. In the Philippines, the right to quality education is guaranteed under the 1987 Constitution and operationalized through various educational policies and reforms, including Republic Act No. 10533, otherwise known as the Enhanced Basic Education Act of 2013 (Republic Act No. 10533, 2013).

These legal foundations underscore the State's commitment to ensuring that learners continue to access educational opportunities even during emergencies, disasters, and other situations that disrupt regular school operations.

The importance of educational continuity became particularly evident during periods of large-scale disruptions that affected the delivery of instruction. In response, the Department of Education (DepEd) institutionalized the Basic Education Learning Continuity Plan (BE-LCP) through DepEd Order No. 12, s. 2020, which emphasized the need for schools to adopt flexible strategies that would enable learning to continue despite adverse

circumstances. The BE-LCP recognized communication as a critical component of educational continuity, as learners, parents, and teachers depend on timely and accurate information to make decisions regarding participation in school activities.

Communication assumes even greater significance during weather-related disruptions, class suspensions, and subsequent class resumptions. When schools announce the resumption of classes following adverse weather conditions, students must not only receive the information but also understand and act upon it. Ineffective communication may result in missed classes, reduced participation, and interruptions in learning. Consequently, schools have increasingly relied on digital technologies and social media platforms to disseminate announcements and maintain communication with learners.

The growing use of digital communication in education has been supported by empirical research. In their review of social media use in educational settings, Zachos et al. (2018) found that social networking platforms facilitate communication, collaboration, information sharing, and engagement among educational stakeholders. The authors emphasized that social media technologies create opportunities for rapid dissemination of information and enhanced interaction between educational institutions and learners. These characteristics make digital communication platforms valuable tools for schools seeking to communicate important announcements, particularly during situations that require immediate dissemination of information.

The increasing reliance on digital communication can likewise be explained through the Technology Acceptance Model proposed by Davis (1989). According to the model, individuals are more likely to adopt and utilize technologies that they perceive as useful and easy to use. Within educational settings, communication platforms such as messaging applications and social networking services are often preferred because they allow information to be transmitted efficiently to large groups of learners. The widespread use of these technologies has consequently transformed how schools communicate operational updates, class schedules, and emergency-related announcements.

Despite advances in communication technology, challenges remain in ensuring that all students receive and act upon information disseminated by schools. Variations in internet connectivity, access to communication devices, and digital literacy may affect the reach and effectiveness of school announcements. Students who experience connectivity limitations or communication barriers may fail to receive critical information regarding class resumptions, leading to unintended absenteeism even when announcements have been issued through official channels.

Attendance during school resumptions is influenced not only by awareness but also by a variety of personal, social, and environmental factors. Demir and Akman Karabeyoglu (2016) found that absenteeism among high school students is associated with factors such as school commitment, parental supervision, academic performance, and perceptions of the school environment. Their findings suggest that attendance behavior reflects a complex interaction of motivational and institutional factors rather than a single determinant.

Similarly, Abid et al. (2021) emphasized that educational participation is shaped by multiple interacting social, economic, institutional, and environmental conditions. Their study on school dropout factors demonstrated that barriers to educational engagement often extend beyond the individual learner and involve contextual influences that affect students' ability to participate in educational activities. These findings suggest that attendance decisions during disruption-recovery periods may be influenced by factors beyond awareness alone, including environmental conditions and accessibility concerns.

Environmental considerations are particularly relevant in countries frequently exposed to weather-related hazards. Adverse weather conditions, transportation disruptions, and safety concerns may discourage students from attending classes even when they are aware that school operations have resumed. Bronfenbrenner's (1979) Ecological Systems Theory provides a useful explanation for this phenomenon by emphasizing that individual behavior is shaped by interactions among multiple environmental systems, including family, school, community, and broader societal conditions. Within this framework, attendance decisions are influenced not only by school announcements but also by family responses, community conditions, and prevailing environmental risks.

Bandura's (1997) Social Cognitive Theory further provides a behavioral explanation for attendance decisions. According to the theory, behavior results from the reciprocal interaction of personal, environmental, and behavioral factors. Central to this perspective is self-efficacy, or an individual's belief in his or her capability to perform a particular behavior. Even when students are aware that classes have resumed, environmental constraints such as flooding, unsafe travel conditions, or transportation difficulties may reduce their confidence in their ability to attend school safely, thereby affecting actual attendance behavior.

While previous studies have established the importance of communication, environmental conditions, and individual factors in shaping educational participation, limited evidence exists regarding how these factors interact during the resumption of classes following weather-related disruptions in local secondary school contexts. Furthermore, the relationship between student awareness of class resumption announcements and actual attendance behavior remains insufficiently explored, particularly in disaster-prone environments where communication and accessibility challenges frequently occur.

Given these considerations, the present study sought to examine students' awareness of class resumption announcements, identify the communication channels used by advisers, determine attendance patterns during class resumption, and investigate the factors influencing attendance and non-attendance. By examining the interplay among communication effectiveness, environmental conditions, and student behavior, the study aims to contribute evidence that may support the development of more responsive and resilient communication strategies during educational disruptions.

LITERATURE REVIEW

Student Awareness and Educational Continuity During Disruptions. Effective communication is essential in maintaining educational continuity during emergencies, disasters, and other events that disrupt regular school operations. The ability of students to receive, understand, and act upon information regarding class suspensions and resumptions significantly influences attendance and participation. According to the Shannon-Weaver Communication Model, communication effectiveness depends not only on message transmission but also on the receiver's successful interpretation of the message despite the presence of communication barriers. This perspective highlights the importance of ensuring that information reaches intended recipients in a clear and accessible manner.

In the Philippine context, the Department of Education (DepEd) institutionalized the Basic Education Learning Continuity Plan to guide schools in sustaining educational services amid disruptions (DepEd, 2020). The framework emphasizes the importance of maintaining communication among schools, learners, and parents to support continuous learning and informed decision-making during emergencies.

The role of digital communication has become increasingly prominent in educational settings. Zachos et al. (2018) observed that social media platforms facilitate communication, information

sharing, collaboration, and engagement among educational stakeholders. Their review suggested that social networking technologies can improve the dissemination of information and support educational interactions, particularly when physical communication is constrained. Consequently, social media has emerged as a practical channel for communicating time-sensitive announcements and operational updates within educational institutions.

Similarly, Davis (1989), through the Technology Acceptance Model (TAM), argued that individuals are more likely to use technology when they perceive it as useful and easy to use. This model provides a theoretical explanation for the widespread adoption of digital communication platforms by students and educators for receiving and sharing school-related information.

Communication Channels and Information Dissemination. The rapid growth of digital technologies has transformed communication practices within educational institutions. Schools increasingly rely on electronic communication systems, social media platforms, and messaging applications to deliver announcements and maintain stakeholder engagement.

According to Zachos et al. (2018), social media platforms offer significant advantages in terms of accessibility, immediacy, and interaction, making them valuable tools for educational communication. Their review further noted that social media promotes collaborative learning environments while enabling institutions to communicate efficiently with learners and other educational stakeholders.

Despite these advantages, disparities in technology access remain a persistent challenge. Variations in internet connectivity, digital literacy, and access to communication devices may affect students' ability to receive announcements and participate in educational activities. Such disparities can contribute to communication gaps, particularly during emergency situations when the timely dissemination of information is critical.

These findings suggest that schools should employ multiple communication channels to maximize message reach and reduce the likelihood of students missing important announcements. Redundant communication strategies may be particularly beneficial during class suspensions and resumptions when prompt awareness is necessary to support attendance and participation.

Attendance and Student Participation During School Disruptions. Student attendance is influenced by various personal, familial, institutional, and environmental factors. During periods of disruption, these factors may interact to shape students' decisions regarding class participation.

Demir and Akman Karabeyoglu (2016) found that absenteeism among high school students is associated with factors such as school commitment, parental supervision, academic performance, and perceptions of the school environment. Their findings demonstrated that students with stronger attachment to school and greater parental involvement were less likely to exhibit absenteeism.

The complexity of attendance behavior is further supported by Abid et al. (2021), who examined factors contributing to school dropout among students in Pakistan. The study revealed that educational participation is influenced by multiple interrelated social, economic, institutional, and environmental factors. The authors emphasized that barriers to educational engagement often arise from circumstances beyond the learners' immediate control, including external environmental conditions and resource limitations.

Together, these studies suggest that attendance during class resumptions is not solely determined by students' awareness of school operations. Rather, attendance reflects the interaction of communication effectiveness, school engagement, family support, accessibility, and contextual conditions.

Environmental and Safety-Related Factors Affecting Attendance. During weather-related disruptions and emergency situations, concerns regarding safety, transportation, and accessibility may significantly influence students' decisions to attend classes. Environmental barriers can limit physical access to schools even when instructional activities resume.

Supporting this perspective, Abid et al. (2021) demonstrated that educational participation is often affected by external contextual conditions that influence learners' access to educational opportunities. Their findings suggest that environmental constraints and safety concerns may hinder attendance despite the availability of educational services.

Furthermore, Bandura's (1997) Social Cognitive Theory emphasizes that behavior is influenced by the reciprocal interaction of personal, behavioral, and environmental factors. Students who perceive travel conditions as unsafe may decide to refrain from attending classes, regardless of their level of awareness regarding class resumption.

Synthesis of Literature. The reviewed literature indicates that successful class resumption depends on the combined influence of communication effectiveness, technology adoption, school engagement, family support, and environmental conditions. Zachos et al. (2018) highlighted the potential of digital communication platforms to facilitate information dissemination, while Davis (1989) explained the factors influencing technology adoption among users.

Demir and Akman Karabeyoglu (2016) demonstrated that attendance behavior is associated with school engagement and parental involvement, whereas Abid et al. (2021) emphasized the influence of broader environmental and socioeconomic factors on educational participation. Collectively, these studies provide a theoretical and empirical foundation for examining students' awareness, communication channels, attendance patterns, and factors affecting participation during class resumptions following disruptions.

Theoretical Framework. This study is anchored on the Shannon-Weaver Model of Communication (Shannon & Weaver, 1948), Social Cognitive Theory and Self-Efficacy Theory (Bandura, 1997), and Ecological Systems Theory (Bronfenbrenner, 1979). These theories collectively explain how information regarding class resumption is transmitted, interpreted, and translated into actual attendance behavior under conditions influenced by environmental disruptions. Together, they provide a comprehensive theoretical lens for understanding why students may remain absent despite receiving information that classes have resumed.

Shannon-Weaver Model of Communication (1948). The Shannon-Weaver Model of Communication (Shannon & Weaver, 1948) conceptualizes communication as a process involving six essential components: sender, encoder, channel, noise, decoder, and receiver. The model posits that communication effectiveness depends on the successful transmission of a message from the sender to the intended receiver while minimizing interference that may distort or obstruct message delivery.

In the context of class suspension and class resumption announcements, the sender refers to the school administration, principal, or class adviser responsible for disseminating information. The encoder involves the preparation and formatting of messages using communication platforms such as Facebook Messenger, Short Message Service (SMS), school group chats, or official school advisories. The channel represents the medium through which the message is transmitted, while students serve as the receivers who decode and interpret the information conveyed.

A central concept in the model is noise, which refers to any factor that interferes with the successful delivery or interpretation of a message. According to Shannon and Weaver

(1948), noise may occur at various stages of the communication process and can significantly affect communication outcomes. In the present study, noise may take the form of physical noise, such as weak cellular signals, internet connectivity problems, power interruptions, or delayed message delivery. Noise may likewise occur as psychological noise, including fear of severe weather conditions, concerns about safety, confusion regarding suspension announcements, or assumptions that classes remain suspended despite official notices of resumption.

These forms of interference may result in a condition that can be described as functional unawareness, wherein information is disseminated but is not effectively received, understood, remembered, or acted upon by students. Consequently, learners may exhibit attendance behaviors comparable to those who were never informed of the class resumption. The Shannon-Weaver Model therefore provides the theoretical basis for examining how communication processes and communication barriers influence students' awareness of class resumption announcements.

Social Cognitive Theory and Self-Efficacy Theory (1997). Bandura's (1997) Social Cognitive Theory emphasizes that human behavior is shaped through the reciprocal interaction of personal factors, environmental influences, and behavioral responses. Central to the theory is the concept of self-efficacy, defined as an individual's belief in his or her capability to organize and execute actions necessary to achieve desired outcomes.

Applied to the present study, awareness of class resumption does not automatically translate into attendance. For attendance behavior to occur, students must believe that they are capable of safely traveling to school and participating in classes despite prevailing circumstances. This belief reflects their level of self-efficacy.

According to Bandura (1997), behavior is influenced by the interaction of three dimensions: personal factors, environmental factors, and behavioral factors. Personal factors include students' knowledge, awareness, perceptions, and confidence regarding class resumption. Environmental factors encompass weather conditions, transportation availability, road accessibility, household restrictions, and safety concerns. Behavioral factors refer to the students' actual decision either to attend or not attend classes.

Within this framework, students may be fully aware that classes have resumed yet still decide not to attend because environmental conditions undermine their confidence in their ability to do so safely. During severe weather disturbances, flooding, impassable roads, or transportation disruptions, students' perceived self-efficacy may decline. As a result, awareness fails to produce the intended behavioral outcome of physical attendance. The theory therefore explains why knowledge of class resumption alone may be insufficient to ensure participation and why attendance behavior depends on students' confidence in their ability to overcome environmental constraints.

Ecological Systems Theory (1979). Bronfenbrenner's (1979) Ecological Systems Theory explains that human behavior is influenced by multiple environmental systems that interact to shape individual experiences and decisions. The theory proposes that behavior is affected by interconnected systems, including the microsystem, mesosystem, exosystem, and macrosystem.

In the context of this study, the microsystem consists of the student's immediate environment, including family members, classmates, teachers, and class advisers. These individuals exert direct influence on students' awareness and attendance decisions through interpersonal interaction and communication.

The mesosystem refers to the interactions among components of the microsystem. This includes communication between schools and

parents, family responses to school announcements, transportation arrangements, and household decisions regarding student safety. These interactions influence how students interpret and respond to information regarding class resumption.

The exosystem includes social structures and environmental conditions that indirectly affect students. Examples include advisories issued by the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA), local government directives, transportation disruptions, flooding, and community-level disaster response measures. Although students may not directly participate in these decision-making processes, such conditions substantially affect their ability and willingness to attend classes.
The macrosystem encompasses broader societal influences such as educational policies, cultural values, disaster preparedness norms, and public safety practices. These factors shape collective attitudes toward risk, safety, and school attendance during adverse weather conditions.

Bronfenbrenner (1979) argues that individual behavior cannot be adequately understood without considering these interacting environmental systems. In this study, a class adviser's resumption announcement may be successfully communicated at the microsystem level, but parental safety concerns, flooded roads, disrupted transportation systems, and weather advisories operating within the mesosystem and exosystem may ultimately override that message. Thus, attendance decisions are influenced not only by awareness but also by broader ecological conditions that shape students' opportunities and constraints.

Theoretical Integration. The three theories collectively explain the pathway from communication to attendance behavior during class resumptions following disruptions.

The Shannon-Weaver Model of Communication (Shannon & Weaver, 1948) explains how class resumption information is transmitted and how communication barriers may prevent students from becoming fully aware of the message. The Social Cognitive Theory and Self-Efficacy Theory (Bandura, 1997) explain how awareness is translated into behavior through students' perceptions of their capability to attend classes despite prevailing challenges. The Ecological Systems Theory (Bronfenbrenner, 1979) broadens this perspective by demonstrating how family, school, community, environmental conditions, and public policies interact to influence attendance decisions.

Taken together, the three theories suggest that successful attendance during class resumption depends on three interrelated conditions: (1) effective communication that promotes awareness, (2) sufficient self-efficacy that enables students to act on the information received, and (3) supportive ecological conditions that facilitate school participation. When any of these conditions are weakened, students may fail to attend classes despite receiving official announcements regarding school resumption. Consequently, the integrated theoretical framework provides a comprehensive explanation for students' awareness, communication experiences, attendance patterns, and reasons for non-attendance following educational disruptions.

Conceptual Framework. Figure 1 illustrates how student-related characteristics (such as profile, grade level, and location) serve as inputs that are processed through communication and psychological models like Shannon-Weaver's theory of message delivery, Bandura's self-efficacy, and Bronfenbrenner's ecological systems while accounting for factors such as redundancy, interference, and environmental constraints. These processes shape how information is transmitted, received, and interpreted, ultimately producing outputs that align with specific research questions: levels of awareness, communication channel effectiveness, identified barriers, attendance and non-attendance patterns, and environmental impacts. In essence, the framework maps the journey from student context through theoretical lenses to

measurable outcomes, providing a structured way to analyze how communication and ecological factors influence student participation and engagement.

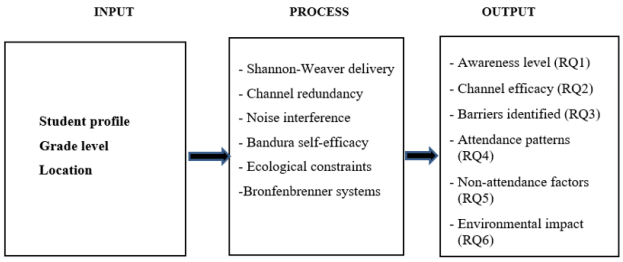


Figure 1
Conceptual Framework of the Study

While national studies exist on blended learning transitions (DepEd 2020), no prior research examines the awareness-attendance disconnect during weather-induced resumptions in Bicol public high schools. Effective communication about class resumptions after disruptions is crucial for maintaining educational continuity in Philippine public schools, yet significant gaps persist between student awareness and actual attendance despite policy mandates for timely notifications.

Despite DepEd guidelines requiring prompt communication during class suspensions and resumptions, many students remain uninformed or fail to attend scheduled sessions, compromising learning continuity and academic performance. Specifically, the study seeks answers to the following questions:

1. To what extent are students informed about the resumption of classes after a disruption?

2. What communication channels are most commonly used by advisers to inform students about class resumption?

3. What are the main barriers faced by students who did not receive information on class resumption?

4. What are the attendance patterns of students following the announcement of class resumption?

5. What factors influence students' decisions not to attend class despite being informed?

METHODS

Research Design. This study employed a descriptive-survey research design to investigate student awareness, communication channels, barriers, attendance patterns, and environmental factors during the class resumption on September 1, 2025, at San Vicente National High School. The descriptive method was appropriate as it systematically documented prevailing conditions and relationships without manipulating variables, providing a comprehensive profile of the phenomenon as it naturally occurred.

The quantitative survey approach enabled the researcher to gather structured data directly addressing the five specific research questions through frequency counts, percentages, and cross-tabulations. This design aligned with DepEd research standards for school-based studies examining immediate post-event behaviors and communication efficacy.

Population and Sampling. The population of the study consisted of 248 junior and senior high school students enrolled at San Vicente National High School during the first semester of School Year 2025–2026. From this population, 210 students who were present on September 2, 2025, participated in the survey, representing 84.7% of the total enrollment. Convenience sampling was employed to select students who had direct exposure to the September 1, 2025 weather-related class disruption and the subsequent afternoon class resumption announcement. The participants included students from Grades 7 to 10 in the junior high school and Grades 11 to 12 in the senior high school, thereby providing representation across both educational levels. The 38 students who were not present during the survey administration were not included in the study because they were unavailable to provide responses regarding their awareness and attendance during the specific class resumption under investigation. Thus, the final sample

comprised 210 students who were available and directly relevant to the study's focus on communication awareness and attendance during the weather-disrupted class resumption.

Instrumentation. The study utilized a researcher-developed questionnaire designed to collect information regarding students' awareness of class resumption announcements, communication channels used by advisers, barriers to information access, attendance patterns, and factors influencing attendance and non-attendance during weather-related class resumptions.

The section on communication effectiveness was informed by the principles of the Communication Model of Shannon and Weaver (1948), which emphasizes the transmission, reception, and interpretation of information within communication systems. Questionnaire items assessed the timeliness, clarity, accessibility, and reliability of information received through Facebook Messenger.

Items pertaining to technology use and acceptance were anchored on the Technology Acceptance Model of Davis (1989), which suggests that perceived usefulness and perceived ease of use influence an individual's adoption and continued utilization of a technology. These indicators were operationalized through statements examining students' ease of access to announcements, responsiveness to communications, and perceived usefulness of Messenger for academic-related information.

To capture students' confidence in responding to school communications and maintaining attendance during disruptions, selected items were guided by Bandura's (1997) Self-Efficacy Theory. The instrument examined learners' perceived capability to monitor updates, comply with school requirements, and remain engaged academically despite class suspensions.

Attendance-related indicators were also developed from literature examining factors associated with student absenteeism and school participation, particularly the work of Demir and Akman Karabeyoglu (2016), who identified communication and school-related factors as important influences on learners' attendance behavior. These concepts were contextualized within situations involving weather-related class suspensions and other emergency interruptions.

The broader educational and environmental context was informed by Bronfenbrenner's (1979) Ecological Systems Theory, recognizing that students' academic participation is influenced by interactions among school, family, community, and communication environments. Additional support was drawn from studies on social media use in educational settings, particularly Zachos et al. (2018), which highlighted the role of digital communication platforms in facilitating academic engagement, information dissemination, and institutional communication.

The questionnaire consisted of three sections: (1) respondent profile, (2) communication channels, awareness of class resumption announcements, and barriers to information access as a communication platform, and (3) attendance behavior during periods affected by class suspensions. Responses to perception statements were measured using a five-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree), with higher scores indicating stronger agreement with the stated condition.

Prior to the conduct of the study, the questionnaire underwent expert validation to establish content validity and ensure alignment with the research objectives. Revisions were made based on the validators' recommendations. A pilot test was subsequently conducted, and the instrument obtained a Cronbach's alpha coefficient of 0.82, indicating good internal consistency and reliability. Since the obtained coefficient exceeded the minimum acceptable threshold of 0.70, the instrument was considered suitable for data collection. The finalized questionnaire was then administered to the target respondents in

accordance with established research and ethical protocols.

Data Gathering Procedure. Prior to the administration of the survey, the researcher coordinated with the previous Officer-in-Charge of San Vicente National High School regarding the conduct of the quick survey on September 2, 2025. Verbal approval was secured for the administration of the instrument. Before answering, the 210 participating junior and senior high school students were oriented on the purpose of the survey, the voluntary nature of their participation, their right to withdraw, and the confidentiality of their responses. The survey questionnaire was administered on September 2, 2025, from 8:00 to 10:00 AM during the first-period homeroom across Grades 7 to 10 and Grades 11 to 12 sections. Class advisers served as proctors under the supervision of the researcher. The questionnaires were distributed in English, and students were instructed to answer independently without discussing their responses or consulting external sources. The questionnaire was completed in approximately 12–15 minutes.

After completion, the questionnaires were immediately collected by the researcher and securely stored in a locked cabinet. The researcher monitored the administration across sections and provided uniform clarification when respondents encountered ambiguous instructions or items. The completed questionnaires were then reviewed for completeness and consistency. Legitimate non-responses were retained, particularly when an item was not applicable based on a respondent's previous answer, and no responses were imputed. A 10% random verification of completed questionnaires was conducted against attendance records to support the authenticity and consistency of the collected data. The responses were subsequently organized, encoded, and prepared for data analysis.

Ethical Considerations. This study adhered to established ethical standards in the conduct of educational research. Prior to data collection, permission was secured from the appropriate school authorities of San Vicente National High School in accordance with the provisions of Republic Act No. 9155 (Governance of Basic Education Act of 2001). Participation of respondents was voluntary, and informed consent was obtained after clearly explaining the purpose of the study, the nature of their involvement, and their right to decline or withdraw participation at any stage without penalty.

The privacy and confidentiality of all participants were protected in compliance with Republic Act No. 10173, otherwise known as the Data Privacy Act of 2012. No personally identifiable information was collected or disclosed, and all responses were treated with strict confidentiality and used solely for academic and research purposes. Anonymity was maintained throughout data processing, analysis, and reporting to ensure that individual respondents could not be identified. Furthermore, the study upheld the principles of respect for persons, beneficence, and integrity by ensuring that no physical, psychological, social, or academic harm resulted from participation and that all findings were reported accurately and objectively.

Data Analysis. Raw data from the 210 respondents were tallied using frequency counts to determine the distribution of responses across all five research questions. Percentages were computed using appropriate denominators for each table to account for legitimate non-responses and multiple-response items.

RESULTS

Extent of Students' Awareness of Class Resumption After a Disruption. Table 1 shows the distribution of students according to their awareness of the resumption of classes following the disruption on September 1, 2025.

Of the 210 respondents surveyed at San Vicente National High School, 188 students (89.5%) reported that they had been informed about the afternoon class resumption, while 22 students

(10.5%) remained unaware. The high awareness rate indicated that communication between advisers and students had generally been effective despite the morning disruption. However, the 10.5% information gap showed that some learners had not received the announcement.

Table 1
Frequency and Percentage Distribution of Students' Awareness of the Resumption of Classes After a Disruption.

Response	Frequency	%
Yes	188	89.5%
No	22	10.5%
Total	**210**	**100%**

Communication channels commonly used by advisers to inform students about class resumption. Table 2 presents the frequency and percentage distribution of communication channels through which students received information from their Advisers about the resumption of classes following the disruption.

Table 2
Frequency and Percentage Distribution of Communication Channels Used by Advisers.

Communication Channel	Frequency (f)	Percentage (%)
Facebook Messenger / Chat Group	179	88.6
Direct Adviser / Teacher Contact	9	4.5
Text / Cellular SMS	3	1.5
Classmate / Word of Mouth	3	1.5
Others (Radio, Social Posts)	8	4.0
Total Responses	**202**	**100.0%**

Note. *Multiple responses allowed for the 188 informed students.*

Among the 188 responses from informed students, 202 multiple responses were received. Messenger and chat groups were the predominant channels, accounting for 88.6% (179 students). This was followed by adviser or teacher contact at 4.5% (9 students), other methods at 4% (8 students), text or SMS at 1.5% (3 students), and classmates at 1.5% (3 students). The substantial concentration of responses in Messenger and chat groups indicated that advisers had primarily relied on digital group messaging to disseminate information efficiently to students.

The findings could be viewed through the Uses and Gratifications Theory, which suggested that individuals selected communication channels based on convenience, accessibility, immediacy, and interactive features. Messenger may have been preferred because it allowed information to be distributed simultaneously to multiple students. However, the limited use of alternative channels indicated reduced communication redundancy, which could have become problematic when students experienced connectivity difficulties.

Main barriers faced by students who did not receive information on class resumption. Table 3 presents the frequency and percentage distribution of the barriers experienced by students that prevented them from becoming aware of the resumption of classes following the disruption. The 22 uninformed students reported 70 multiple responses, with poor cellphone signal or internet connectivity emerging as the predominant obstacle at 48.57% (34 responses), followed by "no information reached me" at 30.0% (21 responses), absence during morning classes at 18.57% (13 responses), and other factors at 2.86% (2 responses). These findings indicated that connectivity problems had been the primary barrier to receiving information, while absence during the morning announcement had further contributed to students' lack of awareness.

Table 3
Frequency and Percentage Distribution of Students' Barriers to Awareness.

Identified Information Barrier	Frequency (f)	Percentage (%)
Poor Cellphone Signal / Internet Connection	34	48.57
No Information Reached Student	21	30.00
Absence During Morning Class Briefing	13	18.57
Other Personal / Technological Barriers	2	2.86
Total Responses	**70**	**100.0%**

Note. *Multiple responses allowed for the 22 uninformed students.*

From the perspective of the Shannon-Weaver communication model, these barriers represented sources of communication noise that had interfered with message transmission. Overall, the findings showed that both infrastructure-related and timing-related

barriers had limited the reach of class resumption announcements. The results therefore suggested that relying primarily on digital communication had left some students vulnerable to exclusion during disruption periods. Supplementary channels, such as SMS, direct contact, and community-based announcements, could have strengthened communication redundancy and ensured that students who experienced connectivity problems or were absent during announcements were also reached.

Attendance patterns of students following the announcement of class resumption. Table 4 reveals the frequency and percentage distribution of students according to their attendance at the resumption of classes following the disruption.

Table 4

Frequency and Percentage Distribution of Students' Attendance Patterns.

Attendance Status	Frequency (f)	Percentage (%)
Attended Afternoon Class (Yes)	24	11.43
Did Not Attend (No)	184	87.62
No attendance data	2	.95
Total Responses	**210**	**100.0%**

Of the 210 students who responded, only 24 (11.43%) reported attending the afternoon class resumption on September 1, 2025, while 184 (87.62%) did not attend. This represented a substantial difference from the 89.5% awareness rate reported in Table 1, indicating that being informed about the resumption did not necessarily result in physical attendance.

Factors that influenced students' decisions to not attend class despite being informed. Table 5 elicits the frequency and percentage distribution of factors that contributed to students' non-attendance during the resumption of classes following the disruption. Among the 184 students who were absent, a total of 207 reasons were identified through multiple-response selections. Bad weather and unsafe travel conditions were the predominant factors, accounting for 43.5% (90 responses). This was followed by functional unawareness of the afternoon class resumption, which accounted for 17.9% of responses (n = 37). The finding suggests that although information regarding class resumption may have been disseminated, it was not effectively received, accessed, retained, comprehended, or acted upon by a subset of students.

Table 5

Frequency and Percentage Distribution of Students' Non-Attendance Factors.

Non-Attendance Decision Factor	Frequency (f)	Percentage (%)
Bad Weather / Unsafe Travel Conditions	90	43.5
Other Household & Situational Priorities	76	36.7
Functional Unawareness ('Did Not Know')	37	17.9
Lack of Travel Accompaniment	4	1.9
Total Responses	**207**	**100.0**

Note. *Multiple responses allowed for the 184 students who did not attend the afternoon class.*

Such a condition may be conceptualized as functional unawareness, wherein the presence of information does not necessarily translate into awareness or informed action. Consequently, affected students exhibit behavioral outcomes similar to those who were never informed, highlighting potential gaps not only in information dissemination but also in message reach, comprehension, and engagement. Other factors at 36.7% (76 responses), and lack of travel accompaniment at 1.9% (4 responses). The findings indicated that weather and travel safety had been the primary factors affecting attendance, while the substantial proportion under "Others" suggested that students had also experienced various personal, household, academic, and health-related circumstances.

Overall, the findings showed that non-attendance had been influenced by both environmental and situational factors. The results supported Bronfenbrenner's ecological perspective, as family, transportation, safety, and communication conditions had interacted to influence students' attendance decisions.

DISCUSSION

The findings of this study reveal a notable distinction between communication efficacy and

actual student participation during weather-disrupted class resumptions. While a substantial majority of students (89.5%) reported awareness of the afternoon class resumption, only 11.43% attended the classes, indicating that successful information dissemination alone was insufficient to ensure attendance. This awareness-attendance disconnect provides empirical support for the study's theoretical proposition that attendance behavior during disruption recovery periods is influenced not only by communication effectiveness but also by broader environmental, psychological, and contextual factors.

Student Awareness of Class Resumption. The high level of awareness recorded among respondents suggests that the school's communication efforts were generally effective in reaching students despite the disruption. This finding is consistent with the assertion of the Shannon-Weaver Model that communication succeeds when messages are transmitted through functioning channels with minimal interference. In the present study, most students were able to receive and interpret the resumption announcement, indicating that the communication system largely fulfilled its intended purpose.

The result also aligns with the observations of Zachos et al. (2018), who emphasized the capacity of social media platforms to facilitate rapid communication, information dissemination, and stakeholder engagement in educational settings. The high awareness level recorded in this study suggests that the digital communication practices employed by advisers were generally effective in promoting the dissemination of class resumption information.

However, the presence of 10.5% of students who remained unaware indicates that communication reach was not universal. This finding reinforces the view that communication effectiveness should not be evaluated solely in terms of message dissemination but also in terms of message accessibility and reception. Even relatively small communication gaps may become significant during emergency situations when timely information is necessary for maintaining educational continuity.

Communication Channels Used During Class Resumption. The overwhelming reliance on Facebook Messenger and chat groups as the primary communication channel demonstrates the central role of digital technologies in contemporary school communication. With 88.6% of responses identifying Messenger as the source of information, the findings suggest that students and advisers perceive the platform as a practical, accessible, and efficient means of communicating school-related announcements.

This finding may be interpreted through Davis's (1989) Technology Acceptance Model, which posits that technology adoption is influenced by perceived usefulness and ease of use. Messenger's widespread utilization suggests that both advisers and students view the platform as a convenient communication tool capable of rapidly disseminating information to large groups.

The results further support the observations of Zachos et al. (2018) that social media platforms facilitate communication and interaction among educational stakeholders. The immediacy, accessibility, and familiarity associated with Messenger likely contributed to its predominance as a communication medium within the school context.

Nevertheless, the minimal use of alternative communication channels such as SMS, direct adviser contact, and word-of-mouth communication suggests limited message redundancy. This finding is significant because reliance on a single dominant platform may increase vulnerability during disruptions when connectivity issues arise. As noted in the literature, diversified communication mechanisms may enhance institutional communication resilience by ensuring that information reaches recipients even when one channel becomes unavailable.

Barriers to Awareness of Class Resumption. Among students who did not receive information regarding class resumption, poor cellphone signal and internet connectivity emerged as the most frequently reported barriers. This finding highlights the persistent influence of digital inequality on educational communication, particularly in geographically vulnerable and disaster-prone areas.

The result directly reflects the concept of communication noise described in the Shannon-Weaver Model. Weak cellular signals, unstable internet connections, and interruptions in digital communication represent forms of physical noise that impede message transmission and prevent successful communication outcomes. Despite the availability of communication technologies, infrastructural limitations continue to affect the ability of some students to access essential educational information.

The findings likewise support previous literature emphasizing that disparities in connectivity and technology access can create communication gaps among learners. As discussed in the literature review, variations in internet access and digital resources may limit students' ability to receive educational announcements during emergencies and disruptions.

Another noteworthy finding is the role of absence during the morning briefing as a barrier to awareness. This suggests that communication systems relying heavily on a single information source may unintentionally exclude students who miss initial announcements. The result underscores the importance of communication redundancy and reinforces the recommendation that schools utilize multiple channels to ensure comprehensive information coverage.

Attendance Patterns During Class Resumption. One of the most significant findings of the study is the substantial discrepancy between awareness and attendance. While nearly nine out of ten students were aware of the class resumption, only a small proportion reported attending. This pattern suggests that awareness is a necessary but insufficient condition for attendance.

The finding is consistent with Bandura's (1997) Social Cognitive Theory, which argues that behavior is shaped not only by information and knowledge but also by environmental conditions and individuals' perceptions of their ability to perform a desired action. Students may have understood that classes had resumed yet remained unable or unwilling to attend because they perceived significant environmental constraints.

The result likewise supports the argument of Abid et al. (2021) that educational participation is affected by multiple interacting social, environmental, and institutional factors that extend beyond the learner's direct control. Attendance decisions during disruption recovery periods appear to involve a complex evaluation of accessibility, safety, household circumstances, and prevailing environmental conditions rather than mere awareness of school operations.

Factors Influencing Non-Attendance. The predominance of bad weather and unsafe travel conditions as reasons for non-attendance demonstrates the influential role of environmental factors in attendance behavior. Although students had received information regarding class resumption, many appeared to prioritize safety concerns over school attendance.

This finding strongly supports Bandura's (1997) proposition that environmental conditions influence behavioral responses through their effect on individuals' sense of efficacy and perceived capability. Students who regarded travel conditions as hazardous may have lacked confidence in their ability to reach school safely, resulting in a decision to remain at home despite knowing that classes had resumed.

The findings also align with the work of Abid et al. (2021), who emphasized that educational participation is often constrained by

environmental and contextual barriers. Similar to their observations, the present study demonstrates that attendance behavior is shaped by conditions beyond students' immediate control, including transportation difficulties, environmental hazards, and household realities.

Particularly noteworthy is the emergence of functional unawareness as the second most frequently reported factor. Although information may have been disseminated, some students appeared unable to access, retain, comprehend, or act upon the communication. This finding expands the traditional interpretation of awareness by suggesting that communication effectiveness should be evaluated not only in terms of message delivery but also in terms of message absorption and behavioral translation. The result corresponds closely with the Shannon-Weaver concept of communication noise wherein successful transmission does not always guarantee successful reception and interpretation.

Ecological Influences on Attendance Decisions. The findings provide substantial support for Bronfenbrenner's (1979) Ecological Systems Theory, which posits that behavior is shaped by interactions among multiple environmental systems. Student attendance during the class resumption event was influenced not only by adviser announcements but also by household decisions, transportation conditions, weather disturbances, and safety considerations operating across different ecological levels.

The results illustrate how the microsystem, mesosystem, and exosystem interact to influence educational participation. Adviser-to-student communication functioned effectively within the microsystem, as demonstrated by the high awareness rate. However, environmental circumstances operating within the mesosystem and exosystem, including unsafe travel conditions, family decision-making, and weather-related hazards, ultimately constrained attendance. This pattern validates Bronfenbrenner's assertion that behavior cannot be fully explained by immediate interpersonal interactions alone but must be examined within a broader ecological context.

Overall, the study demonstrates that communication efficacy, while important, represents only one component of successful educational recovery following disruptions. Attendance behavior emerges from the interaction of communication processes, personal efficacy beliefs, and ecological conditions, thereby supporting the integrated explanatory value of the Shannon-Weaver Model, Bandura's Social Cognitive Theory, and Bronfenbrenner's Ecological Systems Theory.

Educational Implications. The findings of this study have important implications for educational leadership, disaster-responsive school management, and communication planning in basic education. While the results affirm the effectiveness of digital communication platforms, particularly Facebook Messenger, in disseminating class resumption announcements, they also demonstrate that communication effectiveness does not necessarily translate into actual student attendance. This suggests that schools should move beyond communication-centered interventions and adopt integrated strategies that address the environmental, logistical, and socioeconomic factors affecting learners during weather-related disruptions. The study further supports ecological and self-efficacy perspectives, highlighting that students' attendance decisions are influenced not only by information received but also by broader contextual conditions that shape their perceived ability and safety to return to school. Consequently, educational policies and contingency frameworks should incorporate both communication readiness and accessibility support mechanisms to strengthen educational continuity during emergencies.

Limitations of the Study. This study is subject to certain limitations that should be considered when interpreting the findings. First, the investigation was conducted within a single public secondary school, limiting the

generalizability of the results to other educational contexts and geographic locations. Second, the study focused on a specific weather-related class resumption situation; therefore, the findings may not fully represent attendance behaviors under different disaster scenarios or institutional conditions. Third, the data were derived from self-reported responses, which may be influenced by recall bias or respondents' subjective perceptions. Finally, the cross-sectional nature of the study captured participants' experiences at a single point in time and did not examine changes in awareness, communication effectiveness, or attendance patterns across multiple resumption events. Future studies involving multiple schools, longitudinal designs, and diverse disaster contexts may provide a broader understanding of the factors influencing student attendance during post-disaster educational recovery.

Conclusion. The study concludes that although communication channels successfully generated high levels of student awareness regarding class resumption following weather-related disruptions, awareness alone was insufficient to guarantee actual attendance. The findings revealed that Facebook Messenger served as the most effective communication platform in reaching students and disseminating timely information, resulting in generally high awareness of resumption schedules and announcements. However, despite this communication effectiveness, attendance rates remained affected by factors beyond information access. Students' decisions to return to school were significantly influenced by environmental hazards such as flooding and difficult road conditions, transportation challenges, concerns for personal safety, and household circumstances that emerged during and after severe weather events. These results demonstrate that the relationship between awareness and attendance is not linear, as students may be fully informed of school directives yet remain unable or unwilling to attend due to circumstances beyond their control.

Furthermore, the study underscores the importance of adopting a more holistic approach to educational continuity and disaster-responsive school management. Effective communication systems are essential for ensuring that students receive accurate and timely information, but they must be complemented by contingency measures that address accessibility, safety, and socio-environmental barriers to school participation. The findings support the view that resilience in education extends beyond message dissemination and requires coordinated interventions among schools, families, local government units, and disaster risk reduction stakeholders. By integrating reliable communication mechanisms with context-sensitive support strategies, schools can better sustain student participation during recovery periods and minimize learning disruptions caused by weather-related emergencies. Ultimately, educational institutions must recognize that successful class resumption depends not only on informing students when to return, but also on creating conditions that enable them to do so safely and effectively.

Recommendations. Based on the findings of the study, it is recommended that schools strengthen their class resumption communication strategies by adopting a multi-channel approach that combines Facebook Messenger, SMS, school-based announcements, and community information networks to ensure wider message reach, particularly during weather-related disruptions. School administrators should also develop standardized communication protocols and contingency plans that provide timely, accurate, and consistent information regarding class resumption. In addition, collaboration with local government units, disaster risk reduction offices, and community stakeholders should be enhanced to address environmental and transportation challenges that hinder school attendance during post-disaster recovery periods.

Furthermore, schools should implement learner-support mechanisms that consider the

realities faced by students in hazard-prone areas, such as flexible attendance arrangements, alternative learning modalities, and localized recovery interventions when access to school remains difficult or unsafe. Future studies may also examine similar phenomena across multiple schools and geographic locations to validate and extend the findings of the present research. By integrating effective communication systems with practical support measures that address safety, accessibility, and disaster-related barriers, educational institutions can better promote student participation and ensure continuity of learning during weather-related emergencies.

DISCLOSURES

Author contributions. Conceptualization, methodology, investigation, formal analysis, data curation, writing-original draft preparation, writing-review and editing, visualization, and final approval of the manuscript were carried out solely by the author.

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Data availability statement. All data supporting the findings of this study are included within the manuscript.

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