

Motivational Factors of School Personnel in Schools Affected by Volcanic Activities

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Abstract

This study examined the motivational factors of school personnel in schools affected by volcanic activities in Malilipot District, Division of Albay. Anchored on Maslow's Hierarchy of Needs, Herzberg's Two-Factor Theory, and the researcher-developed Disaster-Adaptive Motivation framework, the study determined the respondents' demographic profile, level of motivation, motivational factors, and the relationships between selected profile variables and motivation. It employed a descriptive-analytical mixed-methods research design involving 200 teaching personnel from selected mainland elementary and secondary schools during School Year 2025–2026. Data were gathered using a self-designed and validated questionnaire and were analyzed using frequency, percentage, weighted mean, Pearson's Chi-Square Test of Independence, and SPSS. Findings showed that most respondents were middle-aged, female, married, residing near their schools, bachelor's degree holders, mid-level personnel, and within the early to middle stages of service. The overall motivation level was moderate, with a safe, supportive, and resourceful working environment and supportive colleagues emerging as the strongest motivators, while personal resilience and coping support ranked lowest. Significant relationships were found between civil status and leadership communication, highest educational attainment and distance from school, and distance from school with salary, incentives, benefits, and safe working environment. The study concluded that psychosocial support and resilience training are essential for sustaining teacher motivation in volcanic-risk areas. The study supports SDG 3, SDG 4, SDG 8, SDG 11, SDG 16, and SDG 17 by promoting educator well-being, educational continuity, decent work, disaster-resilient communities, institutional preparedness, and stakeholder collaboration. Its sustainability impact lies in strengthening educational, psychosocial, institutional, and community resilience through Project RESEED Albay.

Keywords: Disaster-Adaptive Motivation, Disaster Resilience, Malilipot District, Motivation, Project RESEED Albay, Psychosocial Support, School Personnel, Volcanic Activities

1. Introduction

This study examines the motivational factors of school personnel assigned to schools affected by volcanic activities in Malilipot District, Division of Albay. It is grounded on the view that motivation is central to workplace productivity, employee effectiveness, morale, and retention, but that such motivation becomes more complex when school personnel work in high-risk environments exposed to recurring volcanic hazards. The study focuses on how demographic profile, level of motivation, and specific motivational factors relate to the experiences of school personnel serving in areas affected by Mayon Volcano. It further seeks to provide a basis for a localized intervention program that supports school personnel's personal, professional, and psychosocial needs in disaster-prone educational settings.

Motivation is widely regarded as a driving force that initiates, directs, and sustains goal-oriented behavior. Forson, J.A., et al (2021) described motivation as a meaningful construct connected with the desire to satisfy a particular need and as a central pillar in the workplace. It contributes to organizational development by increasing employee productivity and effectiveness (Vo TTD, Tuliao KV, Chen CW, 2021), while high motivation encourages employees to work harder (Sutrisno and Sunarsi, 2019). In the school setting, sustained motivation is essential because school personnel are expected to maintain instructional quality, professional commitment, and service continuity even under challenging conditions. In the Philippine public school system, several policies have been created to recognize, reward, and support personnel. DepEd Order No. 9, s. 2002 established the Programs of Awards and Incentives for Service Excellence (PRAISE) in line with CSC Resolution No. 010112 and CSC Memorandum Circular No. 1, s. 2001. These policies promote recognition for suggestions, innovations, exemplary behavior, superior accomplishments, and other contributions to productivity and public service. Incentives may include loyalty incentives, length of service incentives, productivity incentives, career and self-development incentives, compensatory time-off, plaques, certificates, monetary awards, and similar forms of recognition. More recent policy support includes REPUBLIC ACT NO. 11997, which institutionalizes the grant of teaching allowance for public school teachers, DepEd Order No. 5, s. 2025, which provides additional implementing guidelines for

this allowance, and Executive Order No. 64, s. 2024, which provides an annual medical allowance of up to Php 7,000 for eligible government civilian personnel, including public school teachers. Despite these forms of support, school personnel in disaster-prone areas face additional motivational challenges. Schools in volcanic-risk communities do not only function as learning institutions but also serve as community anchors during emergencies. Under Republic Act No. 10121 and the Comprehensive DRRM in Basic Education Framework, schools are mandated to institutionalize disaster preparedness, protect learners and personnel, and ensure educational continuity during emergencies. These responsibilities require school-level Disaster Risk Reduction and Management committees, structural safety assessments, hazard mapping, regular drills, evacuation protocols, and continuity planning.

The literature emphasizes that safety, preparedness, social support, leadership, and psychosocial resilience are central to teacher motivation in disaster-prone environments. Maslow's (1943) Hierarchy of Needs explains that physiological and safety needs must be secured before individuals can pursue higher-level growth. This is supported by Arslan (2020), who found that physical school safety is a fundamental requirement for teacher satisfaction. In schools exposed to volcanic threats, safety is not merely an operational concern but a foundational condition for motivation. Herzberg's Two-Factor Theory further explains that working conditions and physical security function as hygiene factors. Their presence may not automatically increase motivation, but their absence can result in dissatisfaction. This is particularly relevant in volcanic-risk schools where environmental hazards compromise the physical and psychological stability of school personnel. The literature suggests that motivation in such contexts becomes highly dependent on safety, institutional responsiveness, and preparedness. Disaster-related literature also highlights the importance of social cohesion and psychosocial support. In the Philippine context, Republic Act No. 10121 (PDRRM Act) and DepEd Order No. 37, s. 2022 emphasize personnel preparedness as part of school safety. The Filipino value of "Bayanihan" also serves as a social buffer, similar to the "Work Family" concept identified by Mutch (2021), where peer support helps reduce emotional fatigue after disasters. However, Alisbo (2021) and Beltran and Reyes (2023) note that Bicolano educators may experience a "resilience crisis" and "compassion fatigue" due to the recurring nature of volcanic threats in Albay. The depletion of internal coping resources is supported by Hobfoll's (1989) Conservation of Resources (COR) Theory, which explains that burnout occurs when individuals lose internal resources faster than they can replace them. Benardi et al. (2023) likewise found that preparedness in Indonesian volcanic zones is influenced by institutional knowledge, while the Philippine Mental Health Act (RA 11036) supports the need for formal psychosocial interventions. These insights show that school personnel in volcanic-risk areas require not only physical safety measures but also structured emotional, psychological, and professional support.

Other studies further describe the emotional and occupational burden of disasters on educators. DILG-REGION IV-A (2020) described a "Wait and See" attitude among teachers during volcanic unrest, where teachers may remain in service but are not fully empowered. Teachers may experience "compassion fatigue" when managing evacuation centers (Beltran, M. K., & Reyes, T. D., 2023), while maintaining classes despite displacement (Luna, E. M. (2021). External threats may shift educators' focus from career excellence to emotional survival (Al-Enezi, N., 2021). Disaster impacts may also differ by gender, as gendered roles and inequalities create distinct vulnerabilities for women and girls (Smith, L., & Johnson, K. (2022), particularly because of the dual burden experienced by female teachers (Mendoza, L. C. (2020). In such contexts, faculty social cohesion becomes a critical survival mechanism that sustains motivation when individual resilience becomes weak (Mutch, C. 2021). Literature also identifies psychological first aid, professional development, leadership communication, financial incentives, and school-based management as relevant sources of support. Pascual, N. T. (2018) emphasized the role of Psychological First Aid in building mental stamina, while School-Based Psychosocial Support reduces Post-Traumatic Stress Symptoms among educators (Shiotsuki, K., Nakao, M., & Nomura, S., 2018). Teachers in volcanic areas still value workshops and trainings because they need disaster-specific skills (Santos, P. M., & Tolentino, A. G., 2023), and professional growth helps teachers preserve their professional identity during periods of instability, as explained by OECD. (2020). However, a "Leadership-Trust Gap" may occur during school disruptions when teachers feel isolated from the management hierarchy (Anderson, M., & Potter, L. (2022), and such support may be viewed differently by married and single teachers (Villafuerte, S. B., 2021). Financial incentives such as hazard pay may also support teacher retention in high-risk areas (Boateng, S. K., 2019), while hardship-related allowances are relevant to teachers assigned in geographically isolated and disadvantaged areas (Dela Cruz, R. S., 2019). Dela Cruz, 2019) further provides context for the significance of DepEd hardship allowance in relation to GIDA-related risks.

The study is situated in Malilipot District, Division of Albay, a locality affected by the recurring activities of Mayon Volcano. National and local disaster policies provide the institutional context for school preparedness. DepEd Order No. 83, s. 2011 directed schools to implement disaster preparedness measures such as structural strengthening, emergency drills, safe storage of records, coordination, and monitoring. DepEd Order No. 21, s. 2015 established the Disaster Risk Reduction and Management Coordination and Information Management Protocol, while DepEd Order No. 37, s. 2015 provided the Comprehensive Disaster Risk Reduction and Management in Basic Education Framework. DepEd Order (DO) No. 33, s. 2021 further guided school-based disaster preparedness and response measures for weather-related disturbances and calamities. The volcanic context of Albay makes these policies particularly significant. On June 5, 2023, Mayon Volcano was placed under Alert Level 2 due to increased unrest, followed by Alert Level 3 on June 8, 2023. In February

2024, Mayon again experienced significant unrest, including a phreatic eruption, increased seismic activity, lava flow episodes, evacuation orders, and temporary closures of tourist areas. On November 24, 2025, a lahar advisory was issued because heavy rains over the Bicol Region could generate volcanic sediment flows, lahars, muddy stream flows, or muddy run-off in rivers and drainage areas around Mayon Volcano. In early 2026, the threat continued with renewed Alert Level 3 conditions, including possible pyroclastic density currents, lava effusion, gas emissions, and lahar threats. The impact on communities and schools was substantial. The Situational Report for the Mayon Volcanic Activity (2023) recorded class suspensions in six municipalities. The DSWD DROMIC Report #85 reported 9,876 families or 38,396 persons affected in 26 barangays in Albay, including 1,866 families or 7,226 individuals from Malilipot. Earlier in 2026, 3,980 families or 18,339 persons were affected in 51 barangays, while DSWD PDRRMC Report #36 recorded 408 families or 1,481 persons from Malilipot as evacuees as of February 17, 2026. Under PDRRMC-APSEMO Advisory-2026-2, classes were suspended at all levels for schools within the Permanent Danger Zone, while schools in extended evacuation zones and those used as evacuation centers shifted to alternative learning modalities. Canaway, Calbayog, and San Roque in Malilipot were among the barangays identified as located in the Permanent Danger Zone. At the global and regional level, volcanic preparedness literature emphasizes risk awareness, hazard knowledge, communication, and organized evacuation. Kurata Y.B., et al. (2022) found that preparedness for the 2020 Taal Volcano eruption was influenced by perceived risk, hazard knowledge, and effective media information usage. Disasters from explosive volcanic eruptions are relatively infrequent, and emergency planning experience for such events remains limited (Baxter, P.J., et al., 2023). The UWI Seismic Research Centre identifies preparedness across pre-eruption, during-eruption, and post-eruption phases, including monitoring, evacuation, sheltering, ash cleanup, and structural inspection. The Operation L!STO Disaster Preparedness Manual for Taal Volcano Eruption of the DILG Region IV-A (CALABARZON) also provides LGUs with risk-based protocols on hazard mapping, resource stockpiling, evacuation planning, immediate response, and rehabilitation. These frameworks underscore the need to prepare communities and school personnel before volcanic activities disrupt normal life and school operations.

The study is anchored on the integration of Maslow's Hierarchy of Needs and Herzberg's Two-Factor Theory. Maslow (1943) explains that human needs are arranged in a hierarchy, with lower-order needs such as physiological and safety needs requiring satisfaction before higher-order growth needs can be pursued. In the context of volcanic activity, school personnel may be forced to prioritize survival, safety, family security, and environmental stability over professional growth. Herzberg's (1959) Two-Factor Theory complements this view by distinguishing between hygiene factors and motivators. Hygiene factors include working conditions, safety, and physical security. In volcanic-risk schools, environmental hazards function as compromised hygiene factors that can produce dissatisfaction and reduce motivation when not addressed. The theory therefore helps classify volcanic activities as external environmental factors and demographic profile as internal factors that may influence school personnel's motivational responses. Through the synthesis of these theories, the study develops the concept of Disaster-Adaptive Motivation. This framework argues that normal motivational structures change when the physical environment becomes a dominant workplace factor. Volcanic activity represents both a safety need under Maslow and a hygiene factor under Herzberg. Thus, high-level motivators such as recognition, professional growth, and career advancement may lose effectiveness when basic safety, physical security, and distance-related concerns remain unstable. The framework also considers demographic buffering, where factors such as age, designation, or length of service may help some personnel sustain motivation despite environmental threats. The study also uses the Input-Process-Output model to organize the research flow. The inputs include the demographic profile of school personnel, their level of motivation, motivational factors, the relationship between demographic profile and motivational factors, and possible interventions. The process involves data gathering, analysis, interpretation, summary of findings, and preparation of a proposed intervention. The output is Project RESEED Albay, or Resilient Educators Supporting Emotional & Educational Development, a psychosocial intervention for personnel in high-risk volcanic zones. The feedback mechanism implies that after implementation, the intervention may be evaluated and improved based on future results.

The literature shows that teacher motivation, school safety, disaster preparedness, and psychosocial support have been studied separately, but there remains a need for a focused framework on the motivational dynamics of school personnel under persistent volcanic threats. Existing theories such as Maslow's Hierarchy of Needs and Herzberg's Two-Factor Theory are commonly applied to stable work environments, but they do not fully explain how motivation changes when educators work under recurring environmental danger. Current academic literature lacks a unifying framework specifically addressing school personnel motivation in volcanic-risk contexts. This study addresses that gap by proposing Disaster-Adaptive Motivation, which explains how volcanic hazards create a "Hygiene Crisis" in which safety, environmental stability, and working conditions become dominant motivational concerns. It also explains how motivation becomes regressive when educators shift from professional growth and self-actualization back to basic physiological and safety needs. The study is therefore necessary because school personnel in Malilipot District work in schools where volcanic activities may disrupt classes, threaten safety, affect transportation, create displacement, and increase emotional strain. By examining demographic profile, motivation levels, motivational factors, and their relationships, the study provides a localized basis for designing Project RESEED Albay as an intervention that responds to both personal and professional development needs.

This study aligns most directly with SDG 3 – Good Health and Well-Being because it addresses the psychosocial welfare, emotional coping, resilience, and burnout prevention needs of school personnel working in disaster-prone areas. Its focus on Psychological First Aid, psychosocial support, and emotional stamina supports the mental health dimension of sustainability. The study also supports SDG 4 – Quality Education because motivated and resilient school personnel are essential for maintaining educational continuity during volcanic disruptions. When teachers remain supported and capable of fulfilling their duties, learners are more likely to receive stable instruction even during emergencies. It is also connected with SDG 8 – Decent Work and Economic Growth because the study examines workplace motivation, occupational welfare, hazard-related concerns, professional development, and incentives for personnel working in high-risk environments. Supporting school personnel’s motivation contributes to decent and sustainable working conditions. The research further contributes to SDG 11 – Sustainable Cities and Communities because schools in volcanic-risk areas are part of wider community disaster resilience systems. The study highlights the role of schools, local government units, and DRRM officers in protecting communities, coordinating emergency response, and maintaining services during volcanic activity. The study may also relate to SDG 16 – Peace, Justice, and Strong Institutions because it emphasizes institutional policies, school-level DRRM structures, leadership communication, and governance mechanisms that protect personnel and learners during crises. Finally, it supports SDG 17 – Partnerships for the Goals because disaster preparedness and educational continuity require cooperation among schools, DepEd offices, LGUs, DRRM units, communities, and other stakeholders.

The study contributes to educational sustainability by addressing how schools can continue functioning during volcanic disruptions through motivated, supported, and resilient personnel. It recognizes that teacher motivation is not only an individual matter but also an institutional requirement for maintaining instructional quality, learner support, and continuity of school operations. It also contributes to public health and psychosocial sustainability because it emphasizes emotional coping, mental stamina, Psychological First Aid, and school-based psychosocial support for educators exposed to chronic disaster stress. This is particularly important in volcanic-risk communities where school personnel may simultaneously serve as teachers, community responders, and affected residents. The study supports socio-economic sustainability by examining how incentives, hazard-related support, distance from home, and working conditions affect personnel motivation and retention. When school personnel are adequately supported, schools can better sustain their workforce and reduce the risk of burnout, absenteeism, or disengagement. The study also contributes to policy and governance sustainability by providing evidence that can guide school administrators, DepEd officials, and DRRM officers in designing localized interventions for school personnel in high-risk environments. By integrating motivation theory, disaster preparedness, psychosocial support, and institutional response, the study offers a multidisciplinary basis for Project RESEED Albay and for future programs addressing teacher welfare in disaster-prone educational settings.

2. Material and methods

2.1 Research Design

The study employed a descriptive-analytical mixed-methods research design, combining qualitative and quantitative approaches. The descriptive component was used to present the characteristics of the research setting, respondents, and gathered data, while the analytical component was used to identify patterns, trends, and relationships among the variables. This design enabled the researcher to examine the personal and professional characteristics of the respondents, their motivation, and the factors that contributed to their motivational conditions in schools affected by volcanic activities.

2.2 Locale of the Study

The study was conducted in Malilipot District, Division of Albay, during School Year 2025–2026. The participating schools were mainland elementary and secondary schools located in areas affected by volcanic activities. The schools included Basud Elementary School, Binitayan Elementary School, Calbayog Elementary School, Canaway Elementary School, Malilipot Central School, Malilipot National High School, Sta Cruz Elementary School, San Francisco Learning Center, San Francisco National High School, San Isidro East Elementary School, San Isidro West Elementary School, San Isidro National High School, San Jose Elementary School, San Jose National High School, San Roque Elementary School, and Sta Teresa Elementary School. San Antonio Elementary School, San Antonio National High School, and Salvacion Elementary School were excluded because of their geographical location and because they were not directly affected by volcanic activities.

2.3 Respondents of the Study

The respondents of the study were teaching personnel from elementary and secondary schools in Malilipot District, Division of Albay. The target population consisted of 397 teaching personnel, from which a sample of 200 respondents

was derived. These respondents represented school personnel working in mainland schools affected by volcanic activities during School Year 2025–2026.

2.4 Sample and Sampling Procedure

The sample size was determined using Slovin's formula with a 5% margin of error and an $\alpha = 0.05$. From the total population of 397 teaching personnel, 200 respondents were selected for the study. Stratified random sampling was used to ensure representation from the participating schools. The sample included teaching personnel from the identified schools in Malilipot District, with the largest number of respondents coming from San Jose National High School, followed by Malilipot National High School, Malilipot Central School, and San Isidro National High School.

2.5 Research Instrument

The study used a self-designed questionnaire titled Questionnaire on Motivational Factors of School Personnel Affected by Volcanic Activities. The instrument consisted of closed questions and was developed through designing, evaluation, validation through a dry run, and finalization. It covered the respondents' demographic profile, level of motivation and motivational factors, impact of volcanic activities, and developmental programs and interventions implemented or available in the school through interview. The questionnaire was designed to gather information on personnel background, work-related conditions, motivational factors, role performance, and level of motivation. To establish validity, a dry run was conducted with 15 teachers from Naga National High School of Tiwi, Albay. This process was used to identify inconsistencies and errors in the construction of the instrument and to determine which items should be revised, removed, or retained. The validation process involved tabulation, analysis, and interpretation.

2.6 Data Gathering Procedure

The researcher followed a set timeline for data gathering. Permission was first secured from the governing agency and target schools. After approval and completion of the necessary communication, the administration of the questionnaire was scheduled at a convenient time for the schools and their personnel within the target period. During the scheduled data gathering, the questionnaires were distributed to the teachers and collected by the researcher within the same day. The responses were treated with strict confidentiality. Observations were also made based on patterns of behavior and responses reflected in the questionnaire indicators.

2.7 Data Analysis Techniques

The data were analyzed using frequency of responses in a Likert scale, weighted mean, percentage of responses, Pearson's Chi-Square Test of Independence, expected frequencies, degree of freedom, and the Statistical Package for Social Science (SPSS). The Likert scale was used to organize and interpret respondents' feedback, following the scale ranges of 5 for 4.20–5.00, 4 for 3.40–4.19, 3 for 2.60–3.39, 2 for 1.80–2.59, and 1 for 1.00–1.79. The weighted mean was used to determine the average responses of the teachers, while percentages were used to describe response distribution. Pearson's Chi-Square Test of Independence was used to determine the relationship between respondent profiles, such as age, sex, or position, and motivational factors. Expected frequencies and degree of freedom were computed for the contingency tables, and SPSS was used to process and analyze the research questions.

2.8 Ethical Considerations

The study observed ethical procedures in selecting variables, collecting data, and analyzing relationships using standard instruments and statistical methods. Permission was obtained from the governing agency and the respondents. The respondents were informed about the topic, the contents of the questionnaire, the process of administration, and the need for consent before participation. Written informed consent was required prior to inclusion in the study, while verbal informed consent was also obtained from all individual participants. Confidentiality was strictly imposed, and identifying details such as names, dates of birth, identity numbers, and other personal information were not to be published in written descriptions, photographs, or genetic profiles unless necessary for scientific purposes.

3. Results and Discussion

3.1 Profile of School Personnel

3.1.1 Age, Sex, and Civil Status

The respondents were mostly in the early middle-age group of 36–45 years old, with 72 respondents or 36.00%, followed by 46–55 years old with 65 respondents or 32.50%, 23–35 years old with 40 respondents or 20.00%, and 56 years old and above with 23 respondents or 11.50%. In terms of sex, the sample was predominantly female, with 172 respondents or 86.00%, while males accounted for 28 respondents or 14.00%. Most respondents were married, with 160 or 80.00%, followed by single respondents with 33 or 16.50%, widowed respondents with 6 or 3.00%, and separated respondents with 1 or 0.50%. These results indicate that the teaching workforce in the participating schools is largely middle-aged, female, and married. This profile suggests a relatively mature and socially grounded workforce whose motivational needs may be shaped by both professional responsibilities and family-related concerns. The dominance of female and married

respondents also implies that the results primarily reflect the experiences of personnel who may carry multiple work, family, and community responsibilities in volcanic-risk areas.

3.1.2 Distance from School, Educational Attainment, Position, and Length of Service

Most respondents lived near their workplace, with 181 respondents or 90.50% residing within 0–10 kilometers from school, while 12 or 6.00% lived 10.1–20 kilometers away and 7 or 3.50% lived 20.1–51 kilometers away. In educational attainment, 136 respondents or 68.00% held baccalaureate degrees, 59 or 29.50% had master's degrees, and 5 or 2.50% had doctorate degrees. In terms of position, 105 respondents or 52.50% were in mid-level positions, 79 or 39.50% were entry-level personnel, and 16 or 8.00% were in advanced or administrative positions. For length of service, 88 respondents or 44.00% had 6–15 years of service, followed by 47 or 23.50% with 16–25 years, 43 or 21.50% with 26 years and above, and 22 or 11.00% with 0–5 years. The results show that most school personnel live close to their assigned schools, possess undergraduate qualifications, occupy mid-level teaching positions, and are in the developing stage of their careers. This suggests a workforce with practical teaching experience, local accessibility, and potential for continued professional growth. The concentration of respondents within 6–15 years of service also implies that many are still actively building their professional identity while managing the added demands of working in a disaster-prone environment.

3.2 Level of Motivation of School Personnel

3.2.1 Overall Level of Motivation

The overall average weighted mean was 3.29, interpreted as Moderately Motivated/Moderately Affect. The highest-rated factor was a safe, supportive, and resourceful working environment with a weighted mean of 4.32, interpreted as Highly Motivated/Always Affect. This was followed by safe and supportive colleagues with a weighted mean of 4.11, interpreted as Motivated/Affect. Other factors were rated as moderately motivating, including access to training and professional development with 3.47, recognition with 3.41, career growth with 3.35, performance evaluation and feedback with 3.30, family safety and support with 3.13, salary and benefits with 2.99, leadership and communication with 2.90, distance from school with 2.64, and personal resilience and coping support with 2.62. These findings show that the motivation of school personnel in volcanic-risk areas is strongly influenced by environmental safety and social support. They are most motivated when they feel physically secure and supported by colleagues. Maslow's Hierarchy of Needs (1943) explains why safety emerged as the strongest motivator because "Safety Needs" must be addressed before individuals can pursue professional growth. Herzberg's Two-Factor Theory (1966) also supports the finding because safety operates as a hygiene factor, while (Ryan & Deci, 2000) explains the importance of supportive colleagues through the need for relatedness, autonomy, and competence.

3.2.2 Intrinsic and Extrinsic Motivational Patterns

The extrinsic group average was 3.34, while the intrinsic group average was 3.22, both interpreted as Moderately Motivated/Moderately Affect. Extrinsic factors such as safety, colleagues, feedback, family support, salary, leadership, and distance slightly outweighed intrinsic factors such as training, recognition, career growth, and personal resilience. The lowest-rated factor was personal resilience and coping support, with a weighted mean of 2.62. The pattern suggests that personnel remain moderately motivated but are more dependent on external support systems than on internal coping capacity. The results imply that while teachers still value growth, recognition, and professional development, these higher-level motivators become secondary when volcanic risks affect safety, stability, and emotional readiness. The moderate level of motivation reflects a resilient but vulnerable workforce that may continue working because of peer support and school safety systems but may become at risk of burnout or underperformance if mental health and coping support are not strengthened.

3.3 Relationship Between Demographic Profile and Motivational Factors

3.3.1 Age and Motivational Factors

The analysis showed no statistically significant relationship between age and the 11 motivational factors at the 0.05 significance level. All computed values were below their respective critical values, with the computed values ranging from 4.47 for personal resilience to 20.552 for salary and benefits. Although no factor was significant, salary and benefits and family safety showed higher values, indicating that these factors may be more age-sensitive than the others. This means that age does not determine what motivates school personnel in schools affected by volcanic activities. Younger and older teachers generally value safety, leadership, compensation, and support in similar ways. However, the stronger trend for salary and family safety suggests that school administrators should still remain attentive to life-stage concerns, especially because teachers of different ages may have different family and financial responsibilities during volcanic disruptions.

3.3.2 Sex and Motivational Factors

The results showed no statistically significant relationship between sex and the motivational factors. Male and female respondents generally shared similar perceptions of salary, leadership support, safe working environment, colleagues, personal resilience, and family support. However, reliable leadership support and good communication had a computed value of 9.462, which was very close to the critical value of 9.488, making it the nearest to significance among the sex-

related results. This indicates that sex does not statistically differentiate the motivational needs of school personnel in volcanic-risk schools. However, the near-significant result for leadership and communication suggests a possible practical difference in how male and female personnel perceive communication during crisis situations. This implies that school heads may benefit from using inclusive and gender-sensitive communication approaches, especially when giving advisories, assigning responsibilities, and managing emergency-related decisions.

3.3.3 Civil Status and Motivational Factors

Civil status had a statistically significant relationship with reliable leadership support and good communication, with a computed value of 33.479 exceeding the critical value of 21.026. The other motivational factors were not significantly related to civil status, including career growth, salary and benefits, recognition, feedback, training, safe working environment, supportive colleagues, personal resilience, family support, and distance from school. This result suggests that civil status affects how school personnel perceive leadership and communication during volcanic disruptions. Married teachers may prioritize communication connected to family safety and household responsibilities, while single teachers may focus more on operational and professional updates. Therefore, while most motivational factors appear to be shared across civil status groups, leadership communication must be responsive to the different personal circumstances of school personnel.

3.3.4 Distance from School and Motivational Factors

Distance from school had a statistically significant relationship with two motivational factors. Adequate and timely salary, incentives, and benefits had a computed value of 18.241, exceeding the critical value of 15.507. A safe, supportive, and resourceful working environment also showed significance, with a computed value of 15.654 exceeding the critical value of 12.592. Other factors were not statistically significant. This means that the distance between home and school affects how personnel view financial support and workplace safety. Those living farther from school may experience greater concern over travel costs, commute risks, and access to their families during emergencies. This finding is supported by Boateng, S. K. (2019), which emphasizes the value of timely salary and benefits in high-risk areas, and by White, S., & Kline, J. (2019), which confirms that commute sensitivity can become a major extrinsic stressor affecting teacher retention and morale.

3.3.5 Highest Educational Attainment and Motivational Factors

Highest educational attainment was significantly related only to distance of school from home, with a computed value of 17.214 exceeding the critical value of 15.507. Other factors such as salary, career growth, leadership, recognition, family safety, and professional development were not statistically significant, although access to training and recognition showed relatively stronger trends compared with the other non-significant factors. The result indicates that education level does not generally change how teachers value most motivational factors, but it does influence how they perceive distance from home to school. Personnel with higher educational attainment may have different expectations regarding assignment, mobility, professional opportunities, and workplace accessibility. The near-significant trends for training and recognition also suggest that professional development may become more differentiated as teachers advance academically.

3.3.6 Position or Designation and Motivational Factors

Position or designation had no statistically significant relationship with any of the 11 motivational factors. Teachers in entry-level, mid-level, and advanced or administrative roles generally shared similar views regarding career growth, salary and benefits, recognition, feedback, training, safety, colleagues, leadership, personal resilience, family support, and distance from school. However, reliable leadership support and good communication had the highest computed value among this set, suggesting a possible emerging difference in perception by rank. This result means that motivational needs are generally shared across teaching ranks in volcanic-risk schools. Junior and senior personnel appear to value safe working conditions, leadership, compensation, and support similarly. However, because leadership communication showed the strongest trend, school administrators should remain alert to possible differences in how personnel at different ranks experience decision-making, delegation, feedback, and crisis communication.

3.3.7 Length of Service and Motivational Factors

Length of service had no statistically significant relationship with the 11 motivational factors. All computed values were below the critical values. The highest non-significant trends appeared in career growth and advancement, with a computed value of 16.223, and safety and support of the family, with a computed value of 15.662. This indicates that tenure does not statistically determine the motivational needs of school personnel in volcanic-risk settings. Newer and long-serving teachers generally share similar concerns. However, the trends for career growth and family safety suggest that differences may eventually emerge as personnel progress through different service stages, especially as long-serving teachers may have more localized roots, different household responsibilities, or changing expectations for advancement.

3.4 Developmental Programs and Interventions

3.4.1 Need for Psychosocial and Resilience Support

The lowest-rated motivational factor was personal resilience and coping support, with a mean of 2.62. This indicates that while personnel remain moderately motivated, their internal coping capacity is the weakest area. Since age, sex, position, and length of service did not show significant differences in most motivational factors, the findings indicate that a school-wide intervention on mental health, coping, and resilience may be applied uniformly across personnel groups. The finding supports the need for developmental programs that address emotional and psychological well-being. The results emphasize collaboration, disaster-specific training, and resource management in volcanic-affected areas. This aligns with Newhall and Self (2021), whose discussion of the Volcanic Explosivity Index (VEI) highlights the value of understanding eruption magnitude for hazard assessment and response planning. Integrating scientific disaster knowledge with psychosocial support may strengthen teacher preparedness and community resilience.

3.4.2 Proposed Project RESEED Albay

The proposed intervention is Project RESEED: Resilient Educators Supporting Emotional & Educational Development. It is designed for teachers in schools affected by volcanic activity, including ashfall, evacuation, and displacement. The program focuses first on teacher well-being so that personnel can better support student recovery. It consists of a three-day intensive workshop followed by bi-weekly support group meetings involving teachers, school staff, and administrators. Its specific aim is to increase resilience, reduce post-traumatic stress symptoms (PTSS), and strengthen the capacity of school personnel to support learners after volcanic disruptions. This proposed intervention responds directly to the study's finding that personal resilience and coping support is the weakest motivational factor. By focusing on psychosocial support before expecting teachers to provide sustained educational and emotional support to learners, Project RESEED Albay addresses both personnel welfare and educational continuity. It also offers a structured way for schools to document support needs and strengthen DRRM-related reporting and planning in volcanic-risk educational contexts.

4. Conclusion & Recommendations

The study concluded that school personnel in schools affected by volcanic activities in Malilipot District are predominantly middle-aged, female, married, nearby residents, mostly bachelor's degree holders, and generally within the early to mid-stages of their teaching careers. They demonstrated a moderate level of motivation, with the safe, supportive, and resourceful working environment and supportive colleagues emerging as the strongest motivators, while personal resilience and coping support appeared as the weakest area. Significant relationships were found between civil status and reliable leadership and communication, between highest educational attainment and distance of school from home, and between distance of school from home and both adequate salary, incentives, and benefits and safe, supportive, and resourceful working environment. Overall, the findings indicate that while demographic variables generally do not change what personnel find motivating, psychosocial support and resilience training are essential because personal coping remains the least motivating factor amid recurring volcanic disruptions.

It is recommended that schools develop and implement comprehensive psychosocial support and resilience training programs for school personnel, moving beyond basic safety drills toward emotional coping and mental well-being support. Regular capacity-building workshops on Psychological First Aid and mindfulness should be provided to help teachers manage chronic stress in volcanic-risk areas, while self-care strategies should be formally integrated into teacher development plans. Schools should also strengthen collective efficacy by treating teachers as agents of resilience through risk assessment, hazard monitoring, coordinated emergency response, community education on risk reduction, and collaboration with local authorities and stakeholders in developing policies and programs that support disaster mitigation and preparedness.

The study was limited to teaching personnel from selected mainland elementary and secondary schools in Malilipot District, Division of Albay, and excluded San Antonio Elementary School, San Antonio National High School, and Salvacion Elementary School because of their geographical location and because they were not directly affected by volcanic activities. It was also conducted within a specific period, from November 2025 to March 2026, and focused only on the respondents' demographic profile, level of motivation, motivational factors, relationships between profile variables and motivation, and possible personal and professional development interventions.

Compliance with ethical standards

This study was conducted in accordance with institutional ethical standards, with prior permission secured from the concerned governing agency and participating schools. Participation was voluntary, and respondents were informed about the study, the questionnaire, and the data-gathering procedure before providing consent. Written informed consent was obtained, and all responses were treated with strict confidentiality, with identifying information protected throughout the study. No conflict of interest was indicated, and the researcher acknowledges the contributions of the participants, cooperating schools, and concerned authorities. Authorship and copyright responsibility remain with the researcher.

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