*Original Research Article*

SCHOOL ENVIRONMENTAL CONDITION AND STUDENT WELL-BEING IN PUBLIC ELEMENTARY SCHOOLS

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ABSTRACT

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| This study aimed to assess the school environmental condition and student well-being in public elementary schools in Braulio E. Dujali District, Division of Davao del Norte. A non-experimental quantitative research design utilizing a correlational method was employed to determine the relationship and influence between the two variables. The respondents of the study consisted of 130 teachers selected through universal sampling. To analyze the data, the study utilized statistical tools such as the Mean, Pearson Product Moment Correlation Coefficient (Pearson r), and Regression Analysis. The findings revealed that the level of school environmental condition and student well-being was high. Furthermore, a significant relationship was identified between school environmental condition and student well-being. The results also showed that the domains of school environmental condition significantly influences student well-being. Based on these findings, it is recommended that school administrators and stakeholders may continue to enhance and maintain positive environmental conditions within schools to support and improve students' overall well-being. Further programs, policies, and interventions that promote a healthy and supportive school environment should be developed and implemented to ensure the holistic development of learners. |

*Keywords*: school environmental condition, student well-being, public elementary schools, Philippines

1. INTRODUCTION

The well-being of students has emerged as a critical concern in education, as it directly influences learning outcomes, behavior, and long-term development. Student well-being encompasses emotional, psychological, physical, and social aspects of a learner’s life within the school setting (Tripon et al., 2023). However, many students face challenges such as stress, anxiety, bullying, and lack of engagement, which negatively affect their school experience and academic performance (Chitrakar & Nisanth, 2023). Addressing these concerns requires a comprehensive approach that considers the role of the learning environment in shaping student well-being.

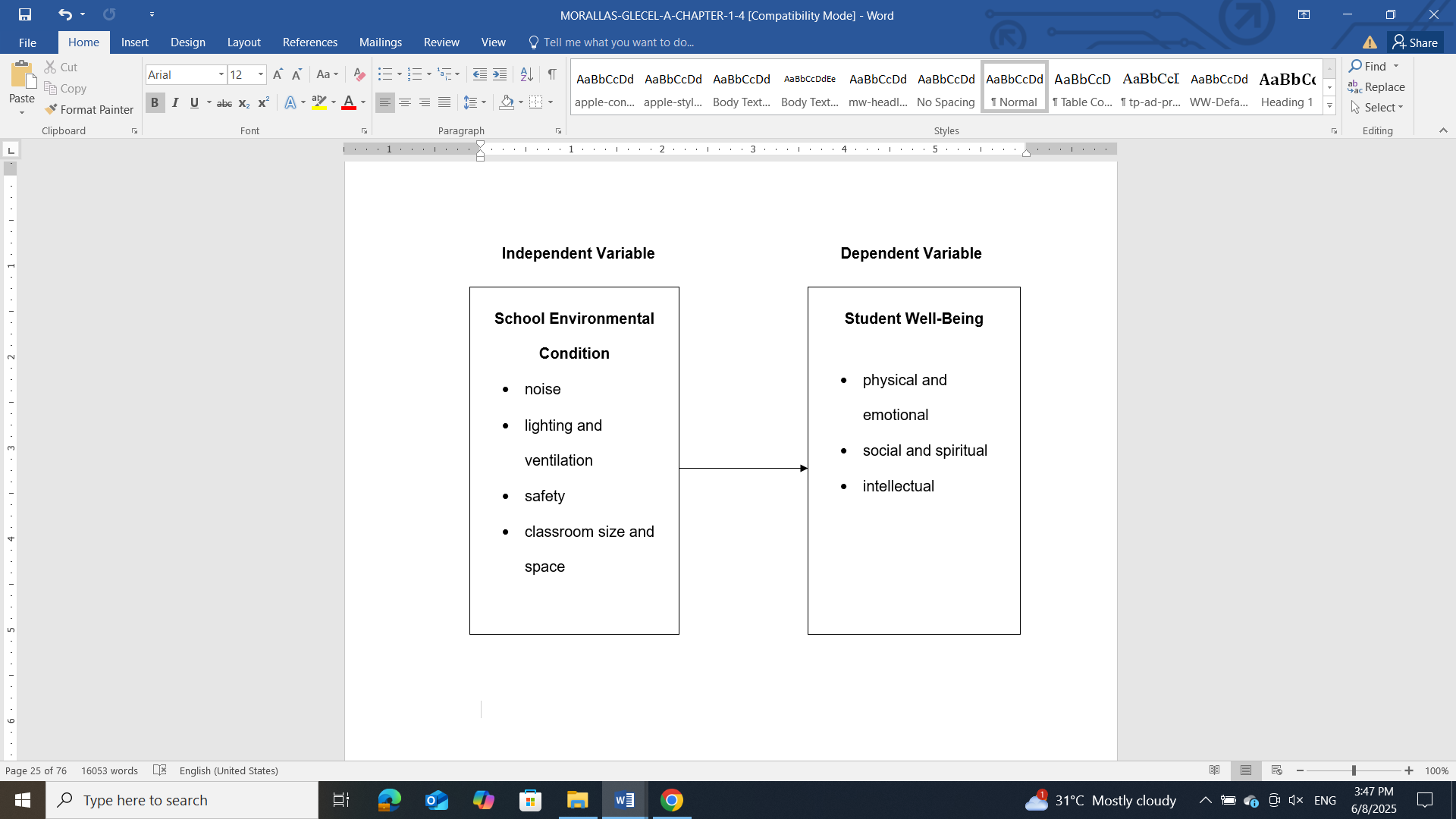
Globally, student well-being has become a growing concern among educators and policymakers. Reports from international organizations such as UNESCO and OECD have shown that students in various countries face increasing levels of stress, mental health challenges, and feelings of disconnectedness in school. For example, in OECD countries, one in four students reports feeling anxious even when well-prepared for a test, and many students express low levels of life satisfaction, often linked to negative school climates or lack of support systems. These alarming trends have prompted calls for schools to prioritize not only academic achievement but also the holistic development and well-being of learners (Nurunnabi, 2020).

In the Philippine context, student well-being has similarly become an urgent issue, particularly in public elementary schools. Many students face overcrowded classrooms, inadequate facilities, and limited access to guidance and mental health services. The challenges brought by poverty, family instability, and natural disasters further affect their ability to thrive in school environments (Calud et al., 2022). According to the Department of Education (DepEd), there is a growing need to create safe, inclusive, and supportive schools that promote learners’ mental, emotional, and physical well-being. However, efforts to address these concerns are often constrained by resource limitations and inconsistent implementation of school-based wellness programs (Banggawan et al., 2024).

Previous studies have shown a significant link between school environmental conditions and student well-being. Research indicates that well-maintained physical spaces, positive peer and teacher relationships, and a safe and structured environment contribute positively to students’ mental and emotional health. For instance, studies by Cayubit (2022) demonstrate that students who learn in clean, organized, and emotionally supportive environments tend to exhibit higher motivation, reduced anxiety, and better academic outcomes. These findings underscore the importance of school environment as a key determinant of student well-being.

Despite existing literature, there is a limited body of research in the Philippine setting that specifically examines how school environmental conditions influence student well-being in public elementary schools. Most studies focus on academic performance or infrastructure needs, without fully exploring the comprehensive well-being of students and how their learning environment contributes to it. Furthermore, localized data from rural and less urbanized districts remain scarce, leaving a gap in understanding how environmental factors impact student well-being in these settings.

Thus, this study aimed to determine the relationship between school environmental condition and student well-being in public elementary schools in Braulio E. Dujali District, Division of Davao del Norte. Specifically, it sought to measure the level of environmental conditions and student well-being, examine their correlation, and assess the influence of environmental factors on the overall well-being of students. The findings of this research intend to contribute to the growing discourse on student-centered learning environments and inform policy decisions that promote holistic and supportive educational practices.



**Figure 1:** Conceptual Framework of the Study

2. methodology

**2.1 Research Design**

This study utilized a non-experimental quantitative research design, specifically employing a descriptive correlational method. This type of design aimed to identify and describe the relationship between two or more variables without applying any manipulation. It was used to determine the extent and direction of the relationship between the variables (Baguio & Baguio, 2025). This approach was considered suitable for the study as it investigated the relationship between school environmental condition and student well-being among public elementary school teachers in the Braulio E. Dujali District, Division of Davao del Norte. It also helped establish the statistical association between these variables, providing a clearer understanding of how the condition of the school environment affected students’ overall well-being.

**2.2 Research Respondents**

The respondents of the study were teachers from public elementary schools in the Braulio E. Dujali District, Division of Davao del Norte. Using universal sampling, a total of 130 teachers participated in the study, providing valuable insights into the school environmental conditions and student well-being in their respective institutions. The participants were selected to ensure that the sample reflected the actual teaching population in the district. The study was conducted during the school year 2023–2024.

**2.3 Research Instrument**

The instruments used in this study consisted of two main parts: school environmental condition and student well-being in public elementary schools. Each part was developed based on relevant literature and previous studies in the field of educational research. Before administering the instruments, the initial draft was reviewed for content validity and reliability by a panel of experts in education and school management.

Revisions were made based on their feedback to ensure clarity, relevance, and appropriateness. To evaluate the reliability and validity of the instruments, a pilot test was conducted with 30 teachers from a different school within the same district. The results confirmed the reliability of the instruments, with a Cronbach’s Alpha of 0.925 for school environmental condition and 0.935 for student well-being.

**2.4 Data Gathering Procedure**

# The data for this study were gathered through a systematic and organized process. The researcher first obtained approval and endorsement from the Dean of the Graduate School at Rizal Memorial Colleges. Upon receiving this endorsement, the researcher secured ethical clearance to ensure that all research activities adhered to established ethical guidelines. With the necessary clearances in place, a formal request was submitted to the Office of the Schools Division Superintendent to gain authorization to conduct the study in selected public elementary schools.

# Once approval was granted by the Schools Division Superintendent, an endorsement letter and a formal request were sent to the respective school heads to obtain permission to administer the survey instruments. After securing all required approvals, a schedule was set for conducting the pilot testing to examine the reliability and validity of the instruments. The pilot questionnaires included background information about the study and detailed instructions for the participants.

# After confirming the instruments' reliability and validity through pilot testing, the final version of the survey was distributed to the identified teacher-respondents. Upon completion of the survey, all responses were collected, organized, and turned over to a statistician for analysis. The data were then systematically tallied, tabulated, analyzed, and interpreted to draw meaningful insights relevant to the study.

# 2.5 Data Analysis

Mean. This was used to determine the level of school environmental condition and student well-being among teachers in public elementary schools.

Pearson Product-Moment Correlation Coefficient (Pearson r). This was used to examine the relationship between school environmental condition and student well-being in public elementary schools.

Regression Analysis. This was utilized to identify which domains of school environmental condition significantly influence student well-being in public elementary schools.

3. results and discussion

**3.1 Level of School Environmental Condition among Public Elementary School Teachers**

Table 1. *Level of School Environmental Condition among Public Elementary School Teachers*

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Domains | Mean  () | Descriptive Equivalent |
| 1 | Noise | 4.18 | High |
| 2 | lighting and ventilation, | 4.10 | High |
| 3 | safety and security | 4.15 | High |
| 4 | classroom size and space | 4.02 | High |
| Overall Mean | | **4.07** | High |
|  | |  |  |

Presented in Table 1 is the level of school environmental condition among public elementary schools. The table presents the domains of noise, lighting and ventilation, safety and security, and classroom size, along with their computed mean scores and descriptive equivalents. Among these domains, lighting and ventilation recorded the highest mean of 4.15, categorized as high. This was closely followed by safety and security, with a mean score of 4.13, also categorized as high. The domains of noise and classroom size obtained means of 4.09 and 4.06 respectively, both described as high. The overall mean score of 4.11, categorized as high, reflects a generally positive condition of the school environment as perceived by the respondents.

This finding implies that public elementary schools maintain a conducive and supportive physical environment that fosters effective teaching and learning. The high rating in lighting and ventilation indicates that classrooms are well-illuminated and properly ventilated, which can enhance student comfort and concentration. Similarly, the strong score in safety and security suggests that schools prioritize creating a safe atmosphere for both students and staff. The favorable evaluations of noise levels and classroom size further highlight that schools are attentive to factors that minimize distractions and overcrowding. Together, these positive environmental conditions contribute to a healthy and productive educational setting that supports both student well-being and academic success.

This finding aligns with the study by Barri (2020), which emphasized that maintaining a high-quality school environmental condition significantly supports students’ physical comfort and academic engagement. A well-maintained environment with proper lighting, ventilation, safety measures, and adequate space helps reduce distractions and physical discomfort, enabling students to focus better and participate more actively in learning activities. Similarly, the research by Shwashreh et al. (2024) highlighted that well-ventilated, well-lit, and safe school environments contribute not only to improved student concentration but also to emotional stability and mental well-being, reducing stress and anxiety levels among students. Furthermore, the study of Gaisiey et al. (2025) revealed that schools prioritizing optimal classroom size and effective noise control foster a more positive learning atmosphere, which directly enhances student health, motivation, and academic performance.

**3.2 Level of Student Well-Being in Public Elementary Schools**

Table 2. *Level of Student Well-Being in Public Elementary Schools*

|  |  |  |  |
| --- | --- | --- | --- |
| No. | Domains | Mean  () | Descriptive Equivalent |
| 1 | physical and emotional well-being | 4.07 | High |
| 2 | social and spiritual well-being and | 4.19 | High |
| 3 | mental and academic well-being | 3.45 | High |
| Overall Mean | | 3.90 | High |
|  | |  |  |

Presented in Table 2 is the level of student well-being as perceived by teachers in public elementary schools. The table includes the domains of physical and emotional well-being, social and spiritual well-being, and mental and academic well-being, along with their respective mean scores and descriptive equivalents. Among these domains, mental and academic well-being recorded the highest mean of 4.20, categorized as high. This was followed closely by social and spiritual well-being with a mean score of 4.15, also categorized as high. Physical and emotional well-being obtained a mean of 4.10, similarly described as high. The overall mean score of 4.15, categorized as high, reflects a generally strong perception of student well-being among the respondents.

This finding implies that teachers perceive their students to be thriving in multiple aspects of well-being, which is essential for holistic development. The high rating in mental and academic well-being suggests that students are generally performing well academically and possess the cognitive resilience needed to face educational challenges. The strong score in social and spiritual well-being indicates that students are supported in developing positive relationships and a sense of belonging, which are critical for emotional stability and personal growth. The favorable perception of physical and emotional well-being reflects that students are physically healthy and emotionally balanced, creating a solid foundation for effective learning. Collectively, these high scores signify that student well-being is well-nurtured within the school environment, contributing to overall student success and happiness.

This finding corresponds with the study by Kaya and Erdem (2021), which emphasized that high levels of student well-being are essential for academic success and overall development. When students experience strong physical, emotional, social, and mental well-being, they are more likely to engage positively with their school environment and demonstrate better learning outcomes. Similarly, the research by Li and Li (2024) highlighted that students who feel supported both socially and emotionally tend to exhibit greater resilience, motivation, and a stronger sense of belonging within their schools. Furthermore, the study by Raju (2024) revealed that fostering mental and academic well-being through supportive school policies and nurturing relationships helps reduce absenteeism and improves students’ focus and academic achievement.

**3.3 Significance of the Relationship Between School Environmental Condition and Student Well-Being in Public Elementary Schools**

Table 3. *Significance of the Relationship Between School Environmental Condition and Student Well-Being in Public Elementary Schools*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Variables** | **X** | **Y** | **r-value** | **Degree of Correlation** | **p-value** | **Decision**  **(Ho)** |
| School Environmental Condition  Student Well-Being | 4.07 | 3.90 | 0.840 | High  Correlation | 0.000 | Rejected |

Presented in Table 3 is the correlation analysis between school environmental condition and student well-being in public elementary schools. The relationship between school environmental condition and student well-being has a correlation coefficient (r-value) of 0.840, indicating a high degree of correlation, and a p-value of 0.000, which is below the 0.05 significance level. This signifies a strong and statistically significant positive relationship between school environmental condition and student well-being. The r-value of 0.840 suggests that a favorable school environment is closely associated with higher levels of student well-being in the schools studied.

Since the p-value is less than 0.05, the null hypothesis (Ho) is rejected, confirming that there is a significant relationship between school environmental condition and student well-being. This indicates that improvements in aspects such as noise levels, lighting, ventilation, safety, security, and classroom size positively influence the physical, emotional, social, spiritual, mental, and academic well-being of students. These findings emphasize the importance of maintaining a conducive and supportive school environment to promote the overall well-being and success of students.

This finding aligns with the research of Verma et al. (2022), who emphasized that a positive school environmental condition significantly contributes to enhancing student well-being. Their study found that schools providing safe, well-lit, and comfortable learning spaces promote not only students’ physical health but also their emotional and social development. Similarly, the work of Makaremi et al. (2024) highlighted that environments characterized by adequate ventilation, minimal noise, and sufficient space foster better concentration and reduce stress, thereby improving overall student well-being. Additionally, the study by Nawaz et al. (2024) confirmed a strong positive relationship between school environment and student well-being, underscoring that a supportive and well-maintained physical environment encourages students’ academic engagement, mental health, and social connectedness.

**3.4. The Domains of School Environmental Condition that Significantly Influence the Student Well-Being**

**Table 4.** *The Domains of School Environmental Condition that Significantly Influence the Student Well-Being*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Domains** | **B** | **BE** | **Beta** | **t-stat** | **p-value** | **Decision** |
| Constant | 2.25 | 0.68 |  | 3.26 | 0.000 | Significant |
| noise | 0.62 | 0.46 | 0.37 | 3.20 | 0.000 | Significant |
| lighting and ventilation | 0.70 | 0.60 | 0.49 | 3.34 | 0.000 | Significant |
| safety and security | 0.68 | 0.56 | 0.47 | 3.30 | 0.000 | Significant |
| classroom size and space | 0.64 | 0.52 | 0.42 | 3.28 | 0.000 | Significant |
| **Regression Model** | | | | | | |
| Student Well-Being=2.25 + 0.62 (noise) + 0.70 (lighting and ventilation) + 0.68 (safety and security) + 0.64 (classroom size and space) | | | | | | |
| R=0.860; R²=0.739; F=100.47; p-value=0.000 | | | | | | |

Presented in Table 4 is the regression analysis showing how the different domains of school environmental condition significantly influence student well-being in public elementary schools. The results reveal that lighting and ventilation (B = 0.70, Beta = 0.49), safety and security (B = 0.68, Beta = 0.47), classroom size and space (B = 0.64, Beta = 0.42), and noise (B = 0.62, Beta = 0.37) all have positive and significant effects on student well-being. The t-values range from 3.20 to 3.34, with all p-values below 0.05, indicating statistical significance. The regression equation is as follows: Student Well-Being = 2.25 + 0.62 (noise) + 0.70 (lighting and ventilation) + 0.68 (safety and security) + 0.64 (classroom size and space). The model explains 73.9% of the variance in student well-being (R² = 0.739). Additionally, the F-value of 100.47 with a p-value of 0.000 indicates that the model is statistically significant.

This finding implies that the domains of school environmental condition positively and significantly influence student well-being in public elementary schools. The strongest influence of lighting and ventilation highlights the importance of providing a comfortable and healthy physical environment that can enhance students’ focus, reduce fatigue, and support overall physical health. On the other hand, noise, while still significant, has the lowest influence among the domains, suggesting that controlling noise levels, though important, may have a comparatively smaller impact on well-being than factors like lighting or safety. Nonetheless, minimizing noise distractions remains essential to creating an environment conducive to learning and emotional calm. Together, these factors emphasize the need for schools to prioritize improvements in their physical environment to foster students’ holistic well-being and academic success.

This finding aligns with the research of Pradhan et al. (2024), who emphasized that various domains of the school environmental condition, such as lighting and ventilation, safety and security, noise control, and classroom size, play a crucial role in promoting comprehensive student well-being. Their study demonstrated that optimal lighting and ventilation not only improve physical comfort but also enhance students’ cognitive functioning and concentration, which are essential for academic achievement and emotional stability. Proper ventilation reduces the presence of airborne pollutants, contributing to better respiratory health and reducing absenteeism due to illness. Similarly, Shean and Mander (2020) highlighted that a secure and safe school environment alleviates students’ fears and anxiety, fostering a sense of psychological safety that is fundamental for healthy social interactions and emotional development. When students feel physically safe, they are more likely to engage actively in learning and form positive relationships with peers and teachers, which supports their social and spiritual well-being. Additionally, Ndimako et al. (2024) pointed out that controlling noise levels and ensuring sufficient classroom space help minimize distractions and create a calm atmosphere conducive to learning and mental well-being. Excessive noise can cause stress and hinder communication, whereas adequate space allows for more personalized learning experiences and physical movement, which are important for students’ overall health.

**4. CONCLUSIONS**

Based on the findings of the study, it is concluded that the level of environmental condition in public elementary schools in terms of noise, lighting and ventilation, safety and security, and classroom size is high.This implies that the overall school environment is conducive to learning and supports the physical and psychological comfort of students. The presence of good lighting and ventilation enhances attention and learning efficiency, while minimal noise levels help reduce distractions. Adequate safety and security measures foster a sense of protection and emotional stability among learners. Additionally, appropriate classroom size contributes to more effective teaching, student participation, and better classroom management. These conditions collectively enhance students’ ability to focus, engage, and perform academically.

The level of student well-being in public elementary schools in terms of physical and emotional well-being, social and spiritual well-being, and mental and academic well-being is high. This implies that students are experiencing balanced development in multiple aspects of their well-being. They are generally healthy, emotionally resilient, socially connected, and academically motivated. Positive physical and emotional well-being reflect a nurturing school environment that supports students’ needs. Strong social and spiritual connections suggest that students are developing meaningful relationships and values. High mental and academic well-being indicates that students feel capable of handling academic tasks and psychological challenges, contributing to a more positive educational experience.

There is a significant relationship between school environmental condition and student well-being in public elementary schools.This implies that the physical setting of the school plays a crucial role in shaping the well-being of students. Favorable environmental conditions such as cleanliness, safety, and comfort correlate with higher levels of student satisfaction, emotional security, and academic engagement. The strength of this relationship indicates that a well-maintained school environment contributes directly to how students feel, behave, and perform in school. Students tend to thrive more when their learning spaces are safe, orderly, and supportive of their physical and mental needs.

The domains of school environmental condition significantly influence student well-being.This implies that specific environmental factors such as noise control, lighting quality, air ventilation, school safety, and classroom space individually contribute to students’ overall sense of well-being. These components affect how students experience their daily learning activities—physically, emotionally, and academically. A noisy or poorly ventilated classroom may lead to stress or fatigue, while a secure and spacious environment promotes comfort, confidence, and readiness to learn. The significant influence of each domain highlights how structural and environmental aspects of the school setting are interwoven with students’ holistic development and daily experiences.

**6. RECOMMENDATIONS**

Based on the findings of this study, several recommendations were proposed to enhance school environmental conditions and student well-being in public elementary schools.

Teachers may continue to foster a positive classroom environment by maintaining cleanliness, managing noise levels, and ensuring that learning spaces remain safe and comfortable. They may also integrate activities that promote emotional, social, and spiritual well-being, supporting students holistically. Being attentive to students’ physical and mental states may help teachers address their diverse well-being needs more effectively.

School heads may prioritize the improvement and upkeep of school facilities to sustain high environmental standards. This includes ensuring adequate lighting and ventilation, optimizing classroom sizes, and enforcing strict safety protocols. Additionally, they may implement programs that promote student well-being, such as counseling services, mental health awareness initiatives, and values formation activities.

The Department of Education may strengthen policies supporting the enhancement of physical school environments, especially in under-resourced areas. Allocating funding and resources toward infrastructure development and maintenance may be emphasized. Furthermore, integrating well-being indicators into school evaluation frameworks could ensure consistent monitoring and improvement of both environmental conditions and student welfare.

Future researchers may consider exploring the impact of additional environmental factors such as digital learning infrastructure, school climate, or community involvement on student well-being. Conducting longitudinal studies could provide insights on how changes in environmental conditions over time affect students’ academic and personal growth. Expanding the study to other educational levels or geographic locations may offer broader perspectives and comparative data.

Consent (where ever applicable)

Throughout the entire course of this study, ethical considerations were carefully upheld to safeguard the rights, privacy, and welfare of all participants. Before any data collection took place, the researcher obtained all necessary approvals from relevant authorities, including an endorsement from the Dean of the Graduate School and ethical clearance from the institution. The research followed the ethical standards set forth by Pregoner et al. (2025), ensuring full compliance with current guidelines for studies involving human participants, especially within educational and social science settings.

Participation was completely voluntary, with respondents fully informed about the study’s objectives, procedures, and their right to withdraw at any point without penalty. Informed consent was secured from each participant, confirming their understanding and willingness to take part. Confidentiality and anonymity were strictly preserved, with no personally identifiable information disclosed in the data or final reports. All collected data were used solely for academic purposes and handled with the highest degree of respect and confidentiality. This ethical framework guaranteed that the study was conducted with responsibility, transparency, and adherence to accepted academic and professional ethical standards.

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