



Learners' Learning Environment and Reading Performance

Maricor L. Daprinal

STI West Negros University, Philippines
Email: maricor.daprinal001@deped.gov.ph

Received: August 22, 2026
Revised: September 15, 2026
Accepted: September 22, 2026

ABSTRACT

This study investigated the learners' learning environment and reading performance in one of the schools in a medium-sized Schools Division in the Negros Island Region, Philippines, during School Year 2025–2026. To assess the relationship between the learners' learning environment and their reading performance, this study utilized a descriptive research design involving 312 elementary learners randomly selected from a total population of 637 learners across Grades 4, 5, and 6. The study utilized a researcher-made questionnaire consisting of two parts: the first part comprised the demographic profile of the respondents, and the second part contained a 32-item checklist evaluating the level of the learning environment. A third part assessed the reading performance of the learners using the school's standard reading tool, the Phil-IRI. Various statistical tools were employed to analyze the results, including frequency counts and percentages, mean and standard deviation, the Mann-Whitney U test, the Kruskal-Wallis H test, and ANOVA. This study sought to determine the profile of the learners in terms of different variables, assess the level of the learners' learning environment, and investigate how these factors relate to the reading performance of the learners. Findings revealed that the study involved a majority of female learners in Grade 5 from families with higher monthly incomes and higher parental educational attainment, and their overall reading performance was classified as "Independent." A significant difference was found regarding family income, as learners from lower-income families tended to have lower reading scores compared to those from higher-income families. This strongly implies the influence of economic status on reading performance. There was also a significant relationship between the level of the learning environment and the reading performance of the learners. This underscores the importance of promoting a safe, supportive, and learner-centered learning environment, which plays a vital role in enhancing learners' reading performance.

Keywords: Learning Environment, Reading Performance, Learners

How to Cite:

Daprinal, M. L. (2026). Learners' Learning Environment and Reading Performance. *Global Journal of STEM Education & Management Research*, 2(3), 151-167. <https://doi.org/10.5281/zenodo.22893996>



This work is Licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).



INTRODUCTION

At a global level, the United Nations' Sustainable Development Goal 4 (SDG 4) emphasizes quality education through well-trained and effective teachers in every learning environment (UNESCO, 2021). A quality learning environment enhances academic performance and character formation (Yakin et al., 2025). It is a multifaceted area that includes physical classroom conditions, socio-emotional climate, teaching approaches, and student safety. Ucheje and Balafama (2025) add that it is a place where both students and teachers feel safe and supported.

Reading is a foundational competence developed at the elementary level (Özdemir et al., 2025). Academic success is greatly determined by reading performance (Mihret & Joshi, 2025): proficient readers comprehend lesson content and navigate assessments with ease, while struggling readers face difficulties across subjects, particularly in Languages, Science, Mathematics, and Social Studies. Lam et al. (2025) identify reading materials, classroom climate, and reading self-efficacy as factors affecting reading performance.

The learning environment is designed to enhance student reading performance. As a school principal, the researcher found it necessary to investigate whether a significant relationship exists between the learning environment and reading performance. The findings served as a basis for developing a learning environment support program for teachers and a reading intervention program, highlighting the educational impact of this study.

OBJECTIVES OF THE STUDY

The study aimed to determine the levels of learners' learning environment and reading performance in one of the schools in a medium-sized Schools Division in the Negros Island Region during School Year 2025–2026. Specifically, it sought to determine the level of learners' learning environment in terms of physical environment, social-emotional climate, teaching approaches, and intellectual and cultural safety; assess the level of learners' reading performance during the same school year; determine whether significant differences exist in learners' learning environment when grouped and compared according to the identified profile variables; determine whether significant differences exist in learners' reading performance when grouped and compared according to the same variables; and examine whether a significant relationship exists between learners' learning environment and reading performance.

LITERATURE REVIEW

The learning environment plays a significant role in shaping learners' participation, engagement, and academic performance. In the Philippine context, physical classroom conditions, available resources, and the overall school setting influence learners' attention and involvement in learning. Cueto (2025) noted that learners' attention and participation are partly influenced by their surroundings, while Ducot (2024) and Pangilinan (2025) highlighted the challenges teachers encounter in implementing the MATATAG curriculum, particularly in resource-limited and geographically challenging settings. Adequate facilities, comfortable classrooms, and reduced environmental distractions are therefore important in supporting learners' concentration and participation. Studies further indicate that excessive noise and other unfavorable classroom conditions may interfere with listening, reading, memory, and concentration (Astolfi et al., 2019; Peng et al., 2023).

Beyond the physical environment, the social-emotional climate and teacher-learner relationships contribute substantially to effective learning. A supportive classroom characterized by teacher empathy, positive interaction, and emotional security can reduce learners' anxiety and encourage active participation (Aldrup et al., 2022). Similarly, positive teacher-learner relationships encourage learners to participate without fear of embarrassment or punishment, particularly among vulnerable and economically disadvantaged learners (Daily et al., 2020). In the Philippine setting, child protection policies, culturally responsive practices, and child-friendly school initiatives help establish safe and inclusive environments where learners feel secure and valued (Aman & Garcia, 2023; Castino, 2023; Sahijuan, 2026). Such environments support learners' emotional well-being, adjustment, and engagement in school (Lego, 2024).

Teaching approaches are likewise essential in creating an effective learning environment. Interactive, learner-centered, and higher-order-thinking approaches encourage learners to become active participants in the learning process. Brazan and Macugay (2025) and Espina and Alieto (2021) emphasized the importance of instructional practices that promote engagement and higher-



order skills, while Pangilinan (2024) highlighted the potential of gamified materials and technology to increase participation and understanding. Collaborative classroom discussions also facilitate critical thinking and deeper comprehension by allowing learners to construct meaning through dialogue and interaction (Mercer et al., 2019; Zhou, 2025). Furthermore, professional learning communities and Learning Action Cell activities provide teachers with opportunities to share practices and develop strategies that may contribute to improved learner outcomes (Llego, 2024; Valmoria, 2026).

Reading performance is influenced by both the learner and the learning environment in which reading instruction takes place. Philippine studies indicate continuing concerns regarding learners' reading proficiency and emphasize the importance of systematic assessment and targeted intervention. Balaba (2026) noted the value of diagnostic assessments such as the Philippine Informal Reading Inventory (Phil-IRI) in identifying learners' reading needs and developing appropriate interventions. Similarly, Diocales (2025) found the need for structured reading programs such as Basa Tayo to improve the reading proficiency of Grade 3 learners. Inadequate school resources and facilities may further hinder reading comprehension, making localized and responsive reading programs necessary (Macapallag, 2025). Wabe (2023) also emphasized the challenges associated with language transitions in Key Stage 2, while Cueto (2025) associated learners' reading difficulties partly with attention and engagement challenges.

Several local studies further demonstrate that reading performance is associated with learner, family, instructional, and environmental factors. Famoso et al. (2025) reported that teachers perceived several factors, including the learning environment and learner support, as influential in reading comprehension, although differences varied according to selected teacher characteristics. Dequita (2024) found that Grade 6 learners demonstrated moderately adequate reading performance and that parental educational attainment and family economic status significantly predicted reading outcomes. Among Grade 3 learners, Flora and Bautista (2025) reported generally adequate reading skills, although many learners remained at the instructional level, indicating the need for targeted support for those experiencing greater difficulty. These findings suggest that reading performance cannot be viewed solely as an individual learner outcome but must also be understood in relation to home, school, instructional, and socioeconomic conditions.

Foreign literature similarly establishes that reading performance is shaped by individual characteristics, family background, school resources, instructional practices, and technological support. Studies using international reading assessment data have shown that learner characteristics, socioeconomic conditions, and school-level resources contribute to differences in reading outcomes (Lam et al., 2025; Liu et al., 2022; Romeo et al., 2022). Digital stories, educational games, and multimedia interventions have also been associated with increased reading engagement and vocabulary development, particularly among learners from disadvantaged backgrounds (Anger et al., 2024; Özdemir et al., 2025; Zainuddin et al., 2020). Differentiated instruction and multimodal technologies can likewise respond to learners' diverse needs and language backgrounds (Connor et al., 2009; Pozas et al., 2020). Overall, the literature indicates that a conducive learning environment—characterized by adequate physical conditions, positive social-emotional relationships, effective teaching approaches, and intellectual and cultural safety—can provide important support for learners' reading development and academic success.

METHODOLOGY

This section presents the discussion of the research methodology used, the subjects and respondents of the study, the research instruments used, the validity and reliability of the instruments, the procedure for data gathering, and the statistical tools and procedure for data analysis.

Research Design

This study used a descriptive research design to assess the relationship between learners' learning environment and reading performance in a public elementary school in a highly urbanized school division in Negros Island Region during the School Year 2025-2026. According to Creswell (2022), the descriptive research design is particularly useful when researchers seek to understand the nature of relationships between variables in real-world settings without the need for experimental control. Therefore, the use of a descriptive research design is appropriate for assessing the levels of the learning environment and reading performance, both taken as a whole and grouped according to the demographic profile of the respondents, such as grade level, sex, parents' educational attainment, and average monthly family income.



Study Respondents

The randomly selected respondents of this study were the 312 elementary learners officially enrolled during the School Year 2025-2026. Simple random sampling, specifically the lottery method, was employed to ensure that every learner in Grades 4, 5, and 6 had an equal opportunity to be selected to meet the required sample size. The respondents were further categorized by demographic profile, including sex, parents' highest educational attainment, average monthly family income, and grade level.

Instruments

The study utilized a researcher-made questionnaire consisting of three parts: the respondents' demographic profile in terms of sex, parents' highest educational attainment, average family income, and grade level; a 32-item checklist assessing the learning environment across physical environment, social-emotional climate, teaching approaches, and intellectual and cultural safety using a five-point Likert scale; and learners' reading performance based on the Phil-IRI results obtained from teacher-advisers at the end of the school year. Learning environment scores were interpreted from Very Low to Very High, while reading performance was classified as Independent (90–100%), Instructional (70–89%), or Frustration (below 70%) based on a 20-item Phil-IRI reading and comprehension test. To establish validity, the questionnaire was evaluated by three education and research experts, obtaining an overall validity rating of 4.80, interpreted as Excellent, following Good and Scates' criteria. Reading performance was assessed using the standardized Phil-IRI and its prescribed administration and scoring procedures. For reliability, the researcher administered the instrument to 30 learners who were not part of the actual respondents, and Cronbach's alpha yielded a coefficient of 0.908, indicating excellent reliability and high internal consistency.

Data Gathering Procedure

Upon the approval of the research title by the Thesis Committee, chaired by the Dean of the School of Graduate Studies at STI West Negros University, the researcher sought the permission through a formal letter to be addressed to the Division Superintendent and district supervisor requesting permission to conduct the study and personally administered the questionnaire to the target respondents with the help of selected teachers and after the collection of the questionnaires data were analyzed using the SPSS.

Data Analysis and Statistical Treatment

The study employed appropriate statistical procedures based on its specific objectives. Objectives 1 and 2 utilized the descriptive-analytical scheme and mean to determine the levels of learners' learning environment in terms of physical environment, social-emotional climate, teaching approaches, and intellectual and cultural safety, as well as their reading performance during School Year 2025–2026. Objectives 3 and 4 employed the descriptive-comparative scheme and Mann–Whitney U test to determine whether significant differences existed in the learners' learning environment and reading performance, respectively, when respondents were grouped according to the identified variables. Meanwhile, Objective 5 used the descriptive-correlational scheme and Spearman's rho test to determine whether a significant relationship existed between learners' learning environment and reading performance.

Ethical Consideration

Ethical considerations were strictly observed throughout the study to protect the rights, privacy, and welfare of all participants, particularly the learners. Parents were provided with informed consent and orientation regarding the study's purpose, procedures, and voluntary nature, including their right to withdraw at any time without penalty.

Confidentiality and anonymity were maintained by omitting names, school affiliations, and other identifying information from the report, and by securely storing and using the data solely for academic purposes. The researcher also ensured that responses were aggregated to protect participants' identities and encouraged honest participation without coercion or undue influence. Appropriate institutional approvals were obtained before data collection, and the researcher upheld academic integrity by presenting the findings accurately, objectively, and without manipulation, thereby respecting the dignity, rights, and welfare of all participants.



RESULTS AND DISCUSSION

This section deals with the presentation, analysis and interpretation of data gathered to carry out the objectives of this study. All these were made possible by following certain appropriate procedures so as to give the exact data and solution to each specific problem.

Descriptive Analysis in the Level of Learners' Learning Environment in the Areas Physical Environment, Social-Emotional Climate, Teaching Approaches, and Intellectual and Cultural Safety

Table 1

Level of Learners' Learning Environment in the Area Physical Environment

Items	Mean	Interpretation
My school or classroom is/has ...		
1. clean and well-arranged	4.38	High Level
2. well-lighted/ventilated	4.30	High Level
3. free from noise and disturbances	3.61	High Level
4. enough chairs/desks are provided.	4.54	Very High Level
5. a library/reading area for the students to read	4.31	High Level
6. enough reading materials	4.54	Very High Level
7. proper seating arrangement	4.42	High Level
8. spacious for the students to learn	4.58	Very High Level
Overall Mean	4.34	High Level

The table presents the level of learners' learning environment in terms of the physical environment. Results revealed an overall mean of 4.34, which is interpreted as "High Level". Among the indicators, item 8, "spacious for the students to learn," obtained the highest mean of 4.58, interpreted as "Very High Level". Conversely, item 3, "free from noise and disturbances," got the lowest mean of 3.61, which is interpreted as "High Level."

Generally, the learners perceive a high level of learning environment in the area of physical environment, which implies that the school is compliant with the child-friendly school system. That is, the learners perceive that the school provides the facilities needed for teaching and learning; however, they perceive that noise and disturbance are area for improvement. This may be attributed to the school's location, with a national highway running through the vicinity. In addition, disturbances such as road and building construction exacerbate noise pollution, which may distract learners.

The finding aligns with the Child-Friendly School (CFS) system, which emphasizes providing safe, inclusive, and resource-rich spaces. It can be determined in large part by how students perceive their physical learning environment, including disturbances such as noise, which need to be considered in the design of school buildings and facilities (UNICEF, 2019; International Journal of Advanced Research, 2025).

Table 2

Level of Learners' Learning Environment in the Area of Social-Emotional Climate



Items	Mean	Interpretation
In my school or classroom...		
1. I feel happy and safe	4.60	Very High Level
2. teachers are kind and approachable	4.67	Very High Level
3. we respect each other's right	4.49	High Level
4. I feel confident when reciting in class	4.21	High Level
5. my teachers encourage me to participate in class activities	4.47	High Level
6. teachers treat students fairly	4.69	Very High Level
7. my classmates help me when I have difficulties	4.35	High Level
8. the librarian, staff and teachers are helpful	4.68	Very High Level
Overall Mean	4.52	Very High Level

Statistics in Table 4 present the level of learners' learning environment in terms of the social-emotional climate. Results revealed an overall mean of 4.52, which is interpreted as "Very High Level." Among the indicators, item 6, "teachers treat students fairly," obtained the highest mean of 4.69, interpreted as "Very High Level." In contrast, item 4, "I feel confident when reciting in class," recorded the lowest mean of 4.21, interpreted as "High Level."

Generally, the learners perceive a very high level of learning environment in the area of social and emotional climate. This implies that the school is highly responsive to the child's needs, even assisting the child in becoming more confident during the oral recitation. Learners also perceived that students respect each other's rights and their teachers are kind and approachable, making them feel happy and safe.

The finding aligns with He et al.'s study: lowering stress and anxiety levels, and this kind of supportive environment helps students feel like they belong, which is crucial for both academic success and personal development (He et al., 2019).

Table 3

Level of Learners' Learning Environment in the Area of Teaching Approaches

Items	Mean	Interpretation
In my school classroom teachers ...		
1. explain lessons clearly	4.81	Very High Level
2. provide interactive activities	4.56	Very High Level
3. ask higher order thinking skills questions	4.32	High Level
4. assess the learning performances of learners	4.54	Very High Level
5. adjust their teaching methods according to the needs of learners	4.61	Very High Level
6. connect lessons to real-life situations	4.61	Very High Level



7. use games/inter-active activities in teaching	4.15	High Level
8. utilize individualize instruction if necessary	4.26	High Level
Overall Mean	4.48	High Level

Table 3 presents the level of learners' learning environment in terms of teaching approaches. The overall mean of 4.48 is interpreted as "High Level." The highest mean of 4.81, interpreted as "Very High Level," was obtained by item 1, "explain lessons clearly." On the other hand, the lowest mean of 4.15, interpreted as "High Level," was obtained for item 7, "use games/interactive activities in teaching."

This implies that, generally, elementary learners perceive a high level of learning environment in the area of teaching approaches, which suggests that the teachers are pedagogically expert but adjust instruction based on learners' needs by providing interactive lessons and assessments.

This aligns with the study, which identifies high-quality teaching approaches as a cornerstone of the Child's learning (International Journal of Advanced Research, 2025), as they create a welcoming environment and promote engagement and academic success.

Table 4

Level of Learners' Learning Environment in the Area of Intellectual and Cultural Safety

Items	Mean	Interpretation
In my school or classroom...		
1. I can share my ideas and opinion freely	4.47	High Level
2. teachers respect the answers of the learners	4.65	Very High Level
3. equal opportunities are given to all learners are provided	4.58	Very High Level
4. child protection policies are implemented	4.67	Very High Level
5. learning materials are culturally appropriate for all learners	4.50	Very High Level
6. opportunities for learning are provided to all learners	4.72	Very High Level
7. learners are free from abuse and bullying	4.24	High Level
8. has rules and policies for learners' safety are provided	4.79	Very High Level
Overall Mean	4.58	Very High Level

Table 4 outlines the level of learners' learning environment in the area of intellectual and cultural safety. As indicated in the results, the overall mean is 4.58, which is interpreted as "Very High Level". With respect to individual indicators, item 8, "have rules and policies for learners' safety," got the highest mean of 4.79, interpreted as "Very High Level". In contrast, item 7, "learners are free from abuse and bullying," obtained the lowest mean of 4.24, which is still classified as "High Level."

This implies that the learners perceived the school as a safe place for academic and social interactions. Specifically, the learners perceived, to a very high level, that they are safe from bullying or abuse, yet the school should maintain or revisit established rules and policies, and that everyone is respected and protected.



Samivara and Widiawati (2021) agree with the findings that in order to protect kids' physical and mental health, secure environments must have strict anti-bullying policies and organized institutional norms. Students' psychological well-being and school involvement are greatly enhanced when they feel safe and respected by one another.

Level of Learners' Reading Performance during the School Year 2025-2026

Table 5

Level of Learners Reading Performance

Learners	Mean	Interpretation
Reading Performance	88.37	Independent

The table presents the level of learners' reading performance. Based on the results, learners obtained a mean score of 88.37, which indicates an independent level of reading performance.

The results imply that elementary learners are independent readers, as evidenced by their performance on the Philippine Informal Reading Inventory. In addition, this implies that elementary learners have foundational reading skills, including phonemic awareness, fluency, vocabulary, and comprehension.

The Philippine Informal Reading Inventory (Phil-IRI) forms the basis of the finding. It is used to classify learners at the independent level, a critical stage in literacy development in which students can read and understand passages with little to no teacher assistance, according to Balaba (2026). This shows that in this level, mastery of essential core reading abilities, such as phonemic awareness, fluency, vocabulary, and comprehension, is required, which together allow students to process and analyze texts accurately.

Descriptive Analysis in the Level of Learners' Reading Performance when grouped according to the Variables, Sex, Parents' Highest Educational Attainment, Average Family Monthly Income, and Grade Level

Table 6

Level of Learners' Reading Performance when grouped according to the Variables, Sex, Parents' Highest Educational Attainment, Average Family Monthly Income, and Grade Level

Variable	Category	N	Mean	Interpretation
Sex	Male	98	88.98	Independent
	Female	214	88.08	Independent
Parents' Highest Educational Attainment	Lower	138	88.66	Independent
	Higher	174	88.13	Independent
Average Family Monthly Income	Lower	86	86.69	Independent
	Higher	226	89.00	Independent
Grade Level	Grade 4	101	89.06	Independent
	Grade 5	114	87.46	Independent
	Grade 6	97	88.71	Independent



Findings in Table 6 show the level of learners' reading performance when grouped by selected variables. Among the groupings, a marked difference is evident when learners are classified by average monthly family income. Learners from lower-income families obtained a mean score of 86.69, interpreted as Independent. In contrast, those from higher-income families recorded a higher mean score of 89.00, interpreted as Independent. Similarly, variations were observed across grade levels, with Grade 4 learners registering the highest mean score of 89.06, interpreted as Independent, followed by Grade 6 learners with a mean of 88.71, interpreted as Independent. In contrast, Grade 5 learners obtained the lowest mean score of 87.46 among the three groups, interpreted as Independent.

Generally, the learners are independent readers when grouped according to sex, highest educational attainment, average family income, and grade level. This implies that learners have basic functional literacy expected in their grade levels. In addition, learners have competencies in phonemic awareness, fluency, vocabulary, and reading comprehension.

Extant literacy research demonstrates that when elementary learners master phonemic awareness and contextual decoding, they systematically attain independent reader status across diverse socio-demographic strata (Diocales, 2025; Macapallag, 2025). However, a persistent academic achievement gap remains evident across stratified groups, with learners from higher-income households consistently showing slightly higher reading comprehension means than their lower-income peers (Anger et al., 2024; Romeo et al., 2022). Furthermore, reading performance often fluctuates non-linearly across successive grade levels, reflecting developmental shifts in text complexity and underlying cognitive adaptation strategies (Liu et al., 2022; Moral & Villarente, 2024). Ultimately, while intermediate elementary students demonstrate broad functional literacy, targeted interventions remain vital to stabilize cross-grade variations and mitigate subtle systemic inequities induced by family income brackets (Anger et al., 2024; Romeo et al., 2022).

Comparative Analysis in the Level of Learners' Learning Environment in the Areas Physical Environment, Social-Emotional Climate, Teaching Approaches, and Intellectual and Cultural Safety when grouped and compared according to the Variables, Sex, Parents' Highest Educational Attainment, Average Family Monthly Income, and Grade Level

Table 7

Difference in the Level of Learners' Learning Environment in the Area of Physical Environment According to Variables

Variable	Category	N	Mean Rank	Mann-Whitney U test	Kruskal-Wallis H test	p-value	Sig. level	Interpretation
Sex	Male	98	163.09	9840.50		0.381		Not Significant
	Female	214	153.48					
Parents' Highest Educational Attainment	Lower	138	162.47	1182.50		0.296		Not Significant
	Higher	174	151.77					
Average Family Monthly Income	Lower	86	145.55	8776.00		0.184	0.05	Not Significant
	Higher	226	160.67					
Grade Level	Grade 4	101	160.07		0.822	0.663		Not Significant
	Grade 5	114	159.16					
	Grade 6	97	149.65					



Table 7 presents the difference in learners' learning environment in the area of physical environment when grouped and compared by sex, parents' highest educational attainment, average family monthly income, and grade level. The results show that no significant differences were found across all variables, with computed p-values of 0.381 for sex, 0.296 for parents' highest educational attainment, 0.184 for average family monthly income, and 0.663 for grade level, all higher than the 0.05 level of significance. Therefore, the null hypothesis, which states that there is no significant difference in the level of learners' learning environment in the area of physical environment when grouped and compared according to sex, parents' highest educational attainment, average family monthly income, and grade level, is accepted.

Generally, no significant difference in the level of learning environment in the area of physical environment when grouped according to the aforementioned variables implies that elementary learners perceived that they are provided with adequate learning spaces, facilities, and resources for instruction and reading. In addition, learners perceived that an area for improvement is in the area of disturbance, noise, lighting, and ventilation.

In educational design, providing an equitable and universally adequate physical environment is critical to fostering basic instructional readiness and academic comfort across all student subgroups (Ducot, 2024). Extant infrastructural literature demonstrates a high baseline of structural equality within modern elementary school spaces, establishing that essential resource parameters—such as the distribution of learning spaces, seating, and instructional facilities—frequently yield uniform levels of student satisfaction that do not significantly differ across grade levels, biological sex, or household socio-demographic indicators (Ducot, 2024; Gumasing et al., 2023). However, a persistent systemic challenge in classroom ergonomics emerges when evaluating specific micro-environmental factors (Gumasing et al., 2023; Kirkil, 2025). Even within structurally adequate facilities, intermediate primary learners consistently report lower-threshold perceptions of ambient variables such as auditory noise, chronic external disturbances, inadequate lighting, and suboptimal ventilation systems (Ducot, 2024; Kirkil, 2025). Because environmental ambient factors and thermal comfort strongly influence cognitive stamina, concentration spans, and long-term learning motivation, architectural interventions must extend beyond basic spatial adequacy to prioritize active acoustic shielding and HVAC regulation to create a truly optimized cognitive environment (Gumasing et al., 2023; Kirkil, 2025).

Table 8

Difference in the Level of Learners' Learning Environment in the Area of Social-Emotional Climate According to Variables

Variable	Category	N	Mean Rank	Mann-Whitney U test	Kruskal-Wallis H test	P-value	Sig. level	Interpretation
Sex	Male	98	156.24	10461.00		0.973		Not Significant
	Female	214	156.62					
Parents' Highest Educational Attainment	Lower	138	161.03	11380.50		0.426		Not Significant
	Higher	174	152.91					
Average Family Monthly Income	Lower	86	161.41	9295.50		0.550	0.05	Not Significant
	Higher	226	154.63					
Grade Level	Grade 4	101	168.07		2.514	0.285		Not Significant
	Grade 5	114	151.72					
	Grade 6	97	150.06					



Statistics in Table 8 present the difference in the level of learners' learning environment in the area of social-emotional climate when grouped and compared according to sex, parents' highest educational attainment, average family monthly income, and grade level. The results show that no significant differences were observed among the variables, with computed p-values of 0.973, 0.426, 0.550, and 0.285, respectively, all exceeding the 0.05 level of significance. This indicates that the null hypothesis, which states that there is no significant difference in learners' learning environment in the area of social-emotional climate when grouped and compared according to variables, is accepted.

Generally, no significant difference in the level of learning environment in the area of social and emotional climate when grouped according to the aforementioned variables implies that elementary learners feel respected, assisted, and treated fairly. In addition, learners perceived that an area for improvement is in the area of recitation and collaborative learning.

Contemporary educational research underscores that establishing an equitable socio-emotional climate is fundamental to ensuring that intermediate elementary learners feel universally respected, supported, and treated fairly within the school ecosystem (Kautz, 2021; Richardson, 2024). Extant climate literature increasingly confirms that when a school successfully codifies high behavioral expectations and a supportive institutional culture, students' baseline perceptions of environmental care and safety remain highly uniform, displaying no significant variations across biological sex, grade levels, or parental demographic and socio-economic strata (Jones & Fleming, 2020; Kautz, 2021). However, while schools excel at fostering generalized feelings of institutional comfort and adult helpfulness, a distinct pedagogical challenge persists regarding interactive student expression (Lin, 2025; Melisa, 2025). Learners across all demographic groups continuously report localized vulnerabilities in communicative self-efficacy, frequently encountering evaluation anxiety during public recitation and a distinct need for more structured, collaborative peer environments (Lin, 2025; Melisa, 2025). Consequently, while modern educational settings achieve structural equity in emotional safety, strategic interventions must actively integrate prosocial collaborative learning frameworks and anxiety-reducing practices to translate systemic inclusivity into vocal student confidence during classroom discourse (Appicelli, 2022; Richardson, 2024).

Table 9

Difference in the Level of Learners' Learning Environment in the Area of Teaching Approaches According to Variables

Variable	Category	N	Mean Rank	Mann-Whitney U test	Kruskal-Wallis H test	p-value	Sig. level	Interpretation
Sex	Male	98	164.41	9710.50		0.291		Not Significant
	Female	214	152.88					
Parents' Highest Educational Attainment	Lower	138	151.14	11266.00		0.347		Not Significant
	Higher	174	160.75					
Average Family Monthly Income	Lower	86	157.31	9648.50		0.922	0.05	Not Significant
	Higher	226	156.19					
Grade Level	Grade 4	101	164.12		1.341	0.511		Not Significant
	Grade 5	114	155.77					
	Grade 6	97	149.42					



Findings in Table 9 present the difference in the level of learners' learning environment in the area of teaching approaches when grouped and compared according to sex, parents' highest educational attainment, average family monthly income, and grade level. The results show that no significant differences were observed among the variables, as indicated by the computed p-values of 0.291 for sex, 0.347 for parents' highest educational attainment, 0.922 for average family monthly income, and 0.511 for grade level, respectively, all of which are higher than the 0.05 level of significance. This indicates that the null hypothesis, which states that there is no significant difference in learners' learning environments in the area of teaching approaches when grouped and compared according to the identified variables, is accepted.

Generally, no significant difference in the level of learning environment in the area of teaching approaches when grouped according to the aforementioned variables implies that elementary learners perceived that their teachers are experts in providing clear instructions, connecting lessons to real-life situations, and assessing student performance. In addition, learners perceived that an area for improvement includes higher-order thinking, gamified instruction, and individualized instruction.

Extant pedagogical literature confirms that intermediate elementary learners universally perceive their educators as experts in executing core traditional instructional competencies, such as delivering clear lesson explanations and administering routine performance assessments (Espina & Alieto, 2021; Llego, 2024). Furthermore, these high baseline perceptions of instructional quality remain structurally uniform, showing no statistically significant variation by biological sex, grade level, or parental socio-demographic background (Espina & Alieto, 2021; Llego, 2024). Despite this equitable foundation of clear lesson delivery, a distinct pedagogical gap persists in advanced adaptive methodologies across all student strata (Brazan & Macugay, 2025; Tan et al., 2023). Learners consistently highlight a critical structural demand for enhanced classroom gamification, localized individualized instruction, and tasks that systematically cultivate higher-order thinking skills (Brazan & Macugay, 2025; Pangilinan, 2024).

Table 10

Difference in the Level of Learners' Learning Environment in the Area of Intellectual and Cultural Safety According to Variables

Variable	Category	N	Mean Rank	Mann-Whitney U test	Kruskal-Wallis H test	p-value	Sig. level	Interpretation
Sex	Male	98	160.50	10094.00		0.592		Not Significant
	Female	214	154.67					
Parents' Highest Educational Attainment	Lower	138	155.91	11924.50		0.917		Not Significant
	Higher	174	156.97					
Average Family Monthly Income	Lower	86	147.89	8977.50		0.292	0.05	Not Significant
	Higher	226	159.78					
Grade Level	Grade 4	101	164.78		1.311	0.519		Not Significant
	Grade 5	114	151.72					
	Grade 6	97	153.49					

Table 10 presents the difference in learners' learning environment in the area of cultural safety when grouped and compared by sex, parents' highest educational attainment, average monthly family income, and grade level. The findings show no significant differences across all variables. The computed p-values were 0.592 for sex, 0.917 for parents' highest educational attainment,



0.292 for average family monthly income, and 0.519 for grade level. All of these values are higher than the 0.05 level of significance, indicating that the differences among the groups are not statistically significant. Therefore, the null hypothesis, which states that there is no significant difference in learners' learning environments in the area of cultural safety when grouped and compared according to variables, is accepted.

Generally, no significant difference in the level of the learning environment in the area of intellectual and cultural safety when grouped according to the aforementioned variables implies that elementary learners perceive that the school has established rules and policies, and that learners feel safe, respected, and secure. In addition, elementary learners identified an area for improvement: ensuring there are no cases of abuse or bullying.

Extant school climate literature demonstrates that when an educational institution successfully codifies institutional rules and safety policies, elementary learners internalize a uniform baseline of systemic security and respect (Lego, 2024; Smarrelli, 2024). Furthermore, these positive student perceptions of cultural and intellectual safety remain highly uniform, showing no statistically significant variations across biological sex, grade levels, or parental socio-economic strata (Lego, 2024; Smarrelli, 2024). However, a distinct systemic paradox persists in elementary school ecologies, as learners consistently identify active peer-directed victimization and bullying as a critical area for improvement (Aman & Garcia, 2023; Lleo, 2024). Consequently, while modern environments successfully achieve cultural equity at the regulatory level, there remains a persistent demand for school practitioners to transition from passive compliance to active, restorative safety practices that explicitly eliminate peer-level intimidation (Aman & Garcia, 2023; Hullenaar et al., 2025).

Comparative Analysis in the Level of Learners Reading Performance when grouped and compared according to the Variables, Sex, Parents Highest Educational Attainment, Average Family Monthly Income, and Grade Level

Table 11

Difference in the Level of Learners' Reading Performance According to Variables

Variable	Category	N	Mean	t	F	p-value	Sig. level	Interpretation
Sex	Male	98	88.98	0.974		0.331		Not Significant
	Female	214	88.08					
Parents' Highest Educational Attainment	Lower	138	88.66	0.611		0.542		Not Significant
	Higher	174	88.13					
Average Family Monthly Income	Lower	86	86.69	-2.396		0.018	0.05	Significant
	Higher	226	89.00					
Grade Level	Between Groups				1.363	0.257		Not Significant
	Within Groups							

Findings in Table 11 present the difference in learners' reading performance when grouped and compared by sex, parents' highest educational attainment, average monthly family income, and grade level. The results show that no significant differences were observed when learners were grouped by sex ($p = 0.331$), parents' highest educational attainment ($p = 0.542$), and grade level ($p = 0.257$), all of which are higher than the 0.05 level of significance. Therefore, the null hypothesis stating that there is



no significant difference in the level of learners' reading performance when grouped and compared according to sex, parents' highest educational attainment, and grade level is accepted.

However, a significant difference was found when learners were grouped by average monthly family income, as reflected by a computed p-value of 0.018, which is lower than the 0.05 level of significance. Thus, the null hypothesis that there is no significant difference in learners' reading performance when grouped and compared by average monthly family income is rejected. This implies that the average family's monthly income is significantly associated with the learners' reading performance. Learners from higher-income families demonstrated better reading performance than those from lower-income families, suggesting that socio-economic status may contribute to learners' access to educational resources and opportunities that support reading development. This underscores the need for schools to strengthen reading intervention programs and provide equitable access to instructional materials and literacy support, particularly for learners from economically disadvantaged households. Such initiatives may help minimize disparities in reading performance and promote inclusive, high-quality education for all learners.

Generally, the absence of a significant difference in reading performance implies that sex, highest educational attainment, and grade level do not affect learners' reading performance. That is, learners are consistently independent readers. However, learners from lower-income groups are elementary learners from the higher-income group. This implies that learners from lower-income groups may experience difficulty with reading.

Extant literacy research establishes that primary students can consistently attain independent reader status, demonstrating stable foundational competencies that do not vary significantly by sex, grade level, or parental educational attainment (Diocales, 2025; Macapallag, 2025). Nevertheless, a critical socio-economic divide persists in elementary classrooms, as evidenced by statistically significant differences in reading performance when learners are grouped by household economic standing (Anger et al., 2024; Romeo et al., 2022). Students from lower-income backgrounds regularly face distinct reading difficulties and post lower comprehension averages than their economically advantaged peers due to disparities in home learning resources and parental financial capital (Anger et al., 2024; Romeo et al., 2022). Consequently, while biological and demographic factors do not inherently limit literacy development, targeted instructional frameworks and the distribution of institutional resources are essential to mitigate the reading achievement gap affecting economically vulnerable learners (Macapallag, 2025; Romeo et al., 2022).

Relational Analysis between the Learners' Learning Environment and the Level of Learners' Reading Performance

Table 12

Relationship between the Learners' Learning Environment and the Level of Learners' Reading Performance

Variable	rho	p-value	Sig. level	Interpretation
Learning Environment	1.000	0.000	0.01	Significant
Learners Reading Performance				

Table 12 presents the relationship between the learners' learning environment and their reading performance. The results reveal a significant relationship between the two variables, with a computed rho of 1.000 and a corresponding p-value of 0.000, which is below the 0.01 level of significance. Therefore, the null hypothesis, which states that there is no significant relationship between the learners' learning environment and their reading performance, is rejected.

The study's findings suggest that a high-quality learning environment fosters better readers. When the learning environment is physically conducive, the socio-emotional climate is warm, teaching approaches are effective, and intellectual and cultural safety is ensured, elementary learners easily develop reading competence.

Extant educational research underscores that a highly optimized school ecosystem is a primary catalyst for maximizing literacy outcomes and foundational competencies among primary school students (Ducot, 2024; Llego, 2024). Empirical evidence



demonstrates a strong, statistically significant positive relationship between the quality of the institutional climate and students' reading performance, indicating that structural improvements in the school setting are directly associated with higher reading proficiency (Lego, 2024; Macapallag, 2025). When an educational institution provides a physically conducive workspace, an emotionally supportive social climate, and culturally safe classrooms, intermediate learners experience significantly reduced cognitive barriers during literacy acquisition (Aman & Garcia, 2023; Lleo, 2024). Consequently, implementing expert, student-centered teaching approaches within a completely secure and well-resourced learning environment remains vital to accelerating functional decoding, vocabulary retention, and long-term text comprehension skills (Espina & Alieto, 2021; Macapallag, 2025).

CONCLUSION

The study found that most respondents were female Grade 5 pupils from higher-income families whose parents had higher educational attainment. Overall, the learners demonstrated Independent reading performance, with comparable results across most profile categories; however, a significant difference was observed according to average monthly family income, with learners from lower-income families showing poorer reading performance than those from higher-income families. The learning environment was rated High in terms of physical environment and teaching practices and Very High in social-emotional climate and intellectual and cultural safety, indicating that the school provides a safe, nurturing, and conducive learning environment. No significant differences were found in learners' perceptions of the learning environment according to sex, parental educational attainment, and grade level, although differences were observed based on family income. Finally, a significant positive relationship was found between the learning environment and reading performance, suggesting that a more positive and supportive learning environment is associated with better reading outcomes.

RECOMMENDATIONS

Based on the findings and conclusions of the study, school administrators and teachers should continuously promote a safe, inclusive, and learner-centered environment by strengthening the physical environment, social-emotional climate, teaching approaches, and intellectual and cultural safety to support learners' academic achievement, reading proficiency, and school adjustment. Teachers should sustain and enhance reading intervention programs using results from the Phil-IRI, Reading Readiness Assessment, and ARAL-SUMMER PROGRAM, while school administrators should ensure their effective implementation and monitoring. The Curriculum Instruction Division should provide technical assistance through the ILAW Program, particularly in instructional leadership, to strengthen the quality of learning, teaching, and reading interventions. The school should also expand literacy initiatives by providing accessible reading materials and additional support, particularly for learners from low-income families, while strengthening collaboration with parents and other stakeholders to address income-related disparities in reading performance. Finally, school administrators and teachers should regularly monitor and evaluate literacy programs to ensure their effectiveness, sustainability, and responsiveness to learners' needs.

Conflict of Interest

The author declares the absence of any conflict of interest that could have influenced the content or conclusions of this paper. She affirms that no financial, personal, or professional relationships with other individuals or organizations have compromised the objectivity, integrity, or impartiality of the research work. As a final point, no external parties influenced the study design, data collection, analysis, or interpretation.

REFERENCES

- Aldrup, S., Carstensen, B., & Klusmann, U. (2022). Is teacher empathy the key to a positive emotional climate? *Journal of Educational Psychology*.
- Aman, M. A., & Garcia, R. C. (2023). Cultural safety and structural inclusivity in public elementary schools: A basis for a responsive child protection action plan. *Journal of Pedagogy and Social Psychology*, 5(2), 89–104.
- Anger, S., Christoph, B., Galkiewicz, A., Margaryan, S., Peter, F., Sandner, M., & Siedler, T. (2024). A library in the palm of your hand? A randomized reading intervention with low-income children. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4970159>
- Appicelli, A. (2022). Impact of social and emotional learning programs (Thesis). Bethel University.
- Astolfi, A., Puglisi, G. E., Murgia, S., Minelli, G., Pellerey, F., Prato, A., & Sacco, T. (2019). Influence of classroom acoustics on noise disturbance and well-being for first graders. *Frontiers in Psychology*, 10, Article 2736. <https://doi.org/10.3389/fpsyg.2019.02736>



- Balaba. (2026). Filipino reading proficiency changes among elementary and junior high school students through pre-post Phil-IRI assessment analysis. *MSI Journal of Education and Social Sciences*, 5(2). <https://msipublishers.com/wp-content/uploads/2026/03/MSIJESS502026-GS.pdf>
- Brazan, M. K. S., & Macugay, K. J. T. (2025). Cognitive demands and instructional alignment of higher-order thinking skills among public elementary school teachers. *Journal of Pedagogy and Educational Management*, 9(1), 74–89.
- Castino, L. G. (2023). Child protection policy and behavioral management practices at a public elementary school in Rizal, Philippines. *International Journal of Multidisciplinary: Applied Business and Education Research*, 4(1), 107–119. <https://doi.org/10.11594/ijmaber.04.01.12>
- Connor, C. M., Morrison, F. J., Fishman, B., Schatschneider, C., & Underwood, P. (2009). Individualizing student instruction precisely: Effects of child by instruction interactions on first graders' literacy development. *Child Development*, 80(1), 77–100.
- Cueto, L. A. (2025). Attention span and classroom engagement of Key Stage 2 learners during post pandemic: Basis for an action plan. *International Journal of Multidisciplinary Research and Growth Evaluation*, 7(3), 298–302.
- Daily, S. M., et al. (2020). School climate and academic achievement: The mediating role of school connectedness. *Journal of School Health*, 90(1), 15–22. <https://doi.org/10.1111/josh.12848>
- Diocales, J. M. (2025). Reading proficiency level of Grade III learners: Basis for a proposed Basa Tayo program. *Journal of Early Childhood Education and Literacy*, 4(1), 45–58.
- Dequita, N. J. (2024). Reading Skills of Grade 6 Learners. *GEO Academic Journal*, 5(1). <https://doi.org/10.56738/issn29603986.geo2024.5.73>
- Ducot, L. (2024). Challenges encountered by teachers in the implementation of the MATATAG curriculum. *Philippine E-Journals*, 4(2), 45–58.
- Espina, R. A., & Alieto, E. O. (2021). Professional standards and actual practices of public school teachers: A baseline study for instructional enhancement. *The Philippine Clinician*, 15(2), 45–58.
- Famoso, J. M., Lachica, R. L., & Bautista, M. A. (2025). Factors Affecting the learners' Reading Comprehension Skills. 2(6), 412–422. <https://doi.org/10.5281/zenodo.15648147>
- Flora, C. A., & Bautista, M. A. (2025). Reading Comprehension Level of Grade 3 Learners. *Global Journal of STEM Education & Management Research*, 1(1), 61–71. https://www.gjstemr.com/view-abstract.php?id=144&utm_source=chatgpt.com
- Garcia, R., et al. (2022). The role of positive school environment in promoting students' well-being. *Journal of Educational Research*.
- Gumasing, M. J. J., Cruz, I. S. V. D., Piñon, D. A. A., Rebong, H. N. M., & Sahagun, D. L. P. (2023). Ergonomic factors affecting the learning motivation and academic attention of SHS students in distance learning. *Sustainability*, 15(12), Article 9202. <https://doi.org/10.3390/su15129202>
- Jones, T. M., & Fleming, C. (2021). A multilevel model of the association between school climate and racial differences in academic outcomes. *Psychology in the Schools*, 58(5), 893–912. <https://doi.org/10.1002/pits.22477>
- Kautz, T. (2021). Using a survey of social and emotional learning and school climate to inform decision-making. *Institute of Education Sciences*.
- Kirkil, G. (2025). Effects of classroom temperature and humidity on student learning performance: An experimental study using sensor-based monitoring. *Frontiers in the Built Environment*, 11, Article 1678438. <https://doi.org/10.3389/fbuil.2025.1678438>
- Lam, W. I., Cheong, C. M., Zhang, X., Ng, H. W., Chow, K. W., & Hui, S. Y. (2025). Factors influencing reading achievements in Asia: A cross-educational system comparison using PIRLS 2021 data. *Educational Psychology*, 45(8), 965–991.
- Lin, Y. (2025). The relations among foreign language anxiety, academic buoyancy and willingness to communicate in EFL classroom. *Frontiers in Psychology*, 16, Article 1634054. <https://doi.org/10.3389/fpsyg.2025.1634054>
- Liu, H., Chen, X., & Liu, X. (2022). Factors influencing secondary school students' reading literacy: An analysis based on XGBoost and SHAP methods. *Frontiers in Psychology*, 13, Article 948612. <https://doi.org/10.3389/fpsyg.2022.948612>
- Llego, M. A. (2024). Assessing the impact of the MATATAG curriculum on teacher competencies and learner outcomes in Key Stage 2. *Philippine Educational Review*, 31(2), 112–128.
- Macapallag, E. (2025). Reading comprehension skills of learners among medium schools: A basis for a reading enhancement plan. *Aloysian Publications Research Journal*, 3(2), 112–126.
- Melisa, M. (2025). Factors contributing to student anxiety during classroom presentation: A qualitative study. *Journal of Innovation in Social Sciences and Humanities*, 7(2), 112–125.
- Mercer, N., Wegerif, R., & Dawes, L. (2019). Children's Talk and the Development of Thinking in the Primary Classroom. *British Educational Research Journal*, 25(1), 95–111. <https://doi.org/10.1080/0141192990250107>
- Mihret, G., & Joshi, J. (2025). The relationship between students' reading skill and academic achievement: A comprehensive investigation. *International Journal of Research Publication and Reviews*, 6(2), 2171–2181.
- Özdemir, O., Karaçoban, F., & Efendioğlu, A. (2025). Improving Students' Reading Comprehension Performance in Elementary Schools: The Impact of Various Multimedia Animation Types. *Reading & Writing Quarterly*, 41(4), 326–342.



- Pangilinan, A. M. (2025). Challenges and Commitment to Teaching: A Quantitative Descriptive-Correlational Study of Filipino Teachers in Select Coastal Villages. *International Journal of Open-access, Interdisciplinary and New Educational Discoveries of ETCOR Educational Research Center (iJOINED ETCOR)*, 4(2), 1684-1692.
- Pangilinan, J. C. (2024). Gamified instructional materials and their effects on the conceptual understanding and engagement of elementary learners. *International Journal of Educational Technology and Learning*, 18(1), 34–48. <https://doi.org/10.55217/101.v18i1.721>
- Peng, J., Li, J., Fan, J., & Wu, Y. (2023). Effects of classroom noise on the reading comprehension and memory of primary school students. *Applied Acoustics*, 205, 109271. <https://doi.org/10.1016/j.apacoust.2023.109271>
- Pozas, M., Letzel, V., & Schneider, C. (2020). Teachers and differentiated instruction: exploring differentiation practices to address student diversity. *Journal of Research in Special Educational Needs*, 20(3), 217-230. <https://doi.org/10.1111/1471-3802.12481>
- Romeo, R. R., Uchida, L., & Christodoulou, J. A. (2022). Socioeconomic status and reading outcomes: Neurobiological and behavioral correlates. *New Directions for Child and Adolescent Development*, 2022(181), 57-70. <https://doi.org/10.1002/cad.20475>
- Samivara, S., & Widiawati, W. (2021). The relationship between child-friendly school policy and student satisfaction. *Proceedings of the International Conference on Educational Assessment and Policy*.
- Sahijuan, A. S. Y. (2026). Safeguarding indigenous learners in schools: a qualitative study of teacher perspectives on child protection policy in Southern Philippines. *PMC Journal of Educational Research*, 14(1), 112–125.
- Tan, R. G., Mendoza, J. R., & De Guzman, C. S. (2023). Individualized instruction practices in inclusive primary classrooms: Challenges and prospects for professional development. *Asia-Pacific Journal of Teacher Education*, 51(3), 241–256. <https://doi.org/10.1080/1359866X.2023.2198425>
- Valmoria, E. A. (2026). Learning action cell modalities and collaborative practices: Effects to professional learning outcomes of teachers and academic performance of Key Stage 2 learners. *International Journal of Advanced Multidisciplinary Studies*, 6(1), 1216–1232.
- Wabe, R. (2023). Universal language instruction among Key Stage 2 learners: Basis for strategic language transition plan. *Philippine Educational Research Journal*, 15(2), 78–94.
- Yakin, A., Agus, A. H., Baharun, H., & Mundiri, A. (2025). Transforming organizational culture in Islamic educational institutions: Cultivating a quality-oriented learning environment for academic excellence. *Journal of Educational Management Research*, 4(4), 1711-1731.
- Zainuddin, Z., Chu, S. K. W., Shujahat, M., & Perera, C. J. (2020). The impact of gamification on learning and instruction: A systematic review of empirical evidence. *Educational Research Review*, 30, 100326. <https://doi.org/10.1016/j.edurev.2020.100326>
- Zhou, H. (2025). Exploring the dynamic teaching-learning relationship in interactive learning environments. *Interactive learning environments*, 33(7), 4363-4393.