



Examining the Link Between Learners' Engagement and Academic Performance

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Abstract

This study examined how engaged learners are and their academic performance in public secondary schools. It also investigated whether there were any significant differences or

relationships among learners grouped by specific demographic and socioeconomic factors. Using a descriptive, comparative, and correlational research design, data were collected from 373

secondary school learners through a validated self-made questionnaire that measured academic, social, and emotional engagement. Learners' academic performance was assessed based on their official first-quarter grades for the School Year 2025-2026. The analysis included descriptive statistics, Mann-Whitney U tests, and Spearman's rho. The results indicated that learners exhibited a high level of engagement across academic, social, and emotional domains. They participated actively, interacted positively with peers, and displayed emotional responsiveness in the learning environment. Most demographic groups achieved a Very Satisfactory level of academic performance. Comparative analyses revealed no significant differences in engagement or academic performance when learners were grouped by sex, grade level, or

average family monthly income. However, the highest educational attainment of parents and the number of siblings had a substantial impact on learners' engagement, while average family monthly income significantly affected academic performance. Furthermore, the relational analysis showed no significant relationship between learners' engagement and their academic performance. These findings suggest that while learner engagement is generally strong, academic performance is influenced by broader contextual, social, and economic conditions. The study emphasizes the need to improve school-based instructional support and implement targeted interventions to address family- and resource-related disparities, thereby promoting equitable educational outcomes in public secondary schools.

Keywords: *Learner Engagement, Academic Performance, Secondary School, Students, Socioeconomic Factors, Educational Outcomes*

INTRODUCTION

Learner engagement has long been recognized as a critical factor influencing students' academic success, particularly during the secondary level where learners face increasing academic demands and developmental challenges. In public secondary schools, issues such as large class sizes, limited instructional resources, and diverse learner backgrounds often affect students' motivation and participation in learning. Learner engagement is commonly conceptualized as a multidimensional construct consisting of behavioral engagement (active participation in classroom activities), emotional engagement (interest, enjoyment, and sense of belonging), and cognitive engagement (investment in learning, self-regulation, and use of learning strategies). When students are meaningfully engaged across these dimensions, they are more likely to demonstrate improved academic performance and sustained learning outcomes (Fredricks, Blumenfeld, & Paris, 2004).

Empirical evidence from secondary public school contexts indicates that learner engagement is strongly associated with academic achievement, persistence, and reduced risk of school failure. Engaged learners tend to exhibit positive academic behaviors such as attentiveness, task completion, and persistence in challenging tasks, which contribute to higher levels of academic performance. Appleton, Christenson, and Furlong (2008) emphasized that learner engagement functions as a protective factor that enhances students' commitment to school and learning, thereby supporting achievement and retention. These findings suggest that engagement serves as a key mechanism through which instructional practices, school climate, and learner motivation influence academic outcomes in public secondary schools.

The significance of learner engagement is also underscored in the global education agenda, particularly in the United Nations Sustainable Development Goal 4 (SDG 4), which aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. SDG 4 highlights the importance of effective learning environments, active learner participation, and improved learning outcomes—elements that are closely aligned with the concept of learner engagement (United Nations, 2015). Moreover, international assessments reported by the Organisation for Economic Co-operation and Development (OECD, 2023) reveal that students' sense of belonging, classroom participation, and positive school climate are associated with better academic performance. In this context, examining the link between learners' engagement and academic performance in public secondary schools provides an essential evidence base for developing school-based interventions that enhance teaching effectiveness, learner motivation, and educational quality in support of SDG 4.

Current State of Knowledge

Learner engagement is widely recognized in recent literature as a multidimensional construct encompassing behavioral, emotional, and cognitive dimensions, particularly relevant in secondary education where students encounter increasing academic demands and social pressures. Behavioral engagement refers to students' observable participation in learning activities, emotional engagement reflects interest, enjoyment, and sense of belonging in school, and cognitive engagement involves sustained effort, self-regulation, and strategic learning. Recent measurement-focused studies affirm that these dimensions, while distinct, are interrelated and collectively shape learners' academic experiences. This multidimensional understanding is especially important in public secondary schools, where students may comply with classroom routines yet remain emotionally or cognitively disengaged, limiting deeper learning and academic growth (Heilporn et al., 2020).

Using this interpretation as a basis, current studies are pointing out that learner engagement is not just a single trait of an individual but rather a continuous process influenced by the methods of teaching and the environment of the school. It is found that the use of encouraging and attractive teaching methods that include promoting student autonomy in classroom activities, having students work on tasks that they consider meaningful, and giving feedback that is facilitating, are all Factors that contribute to Students' emotional and behavioral engagement dual role in teaching. Moreover, the latest meta-analytic data shows the importance of both good relations between teachers and students and of classroom environments that are supportive in keeping the engagement of the secondary students alive. These outcomes imply that engagement works as a basic learning process that affects the students' attitudes towards academic tasks, thus, engagement is positioned as a prior factor leading to academic success in public secondary schools (Cents-Boonstra et al., 2021; Li et al., 2023).

Given this role of engagement as a precursor to learning behaviors, it logically follows that academic performance is closely linked to how actively and meaningfully students engage in school. Academic performance, commonly measured through school grades, grade point averages, and standardized test scores, remains a central indicator of educational effectiveness in recent research. Contemporary studies note that these indicators reflect not only mastery of academic content but also students' capacity to meet classroom expectations and sustain effort over time. Meta-analytic findings further demonstrate that academic achievement shows moderate stability across school years, underscoring its validity as a key outcome variable in secondary education research (Scherrer et al., 2025).

The connection between engagement and performance has been emphasized especially in teacher-assigned grades according to recent literature which however include learners' participation, persistence, and classroom behaviors that are very much aligned with engagement. Studies have indicated that engaged students are more prone to showing diligence, attentiveness, and task completion, all of which are inversely related to academic outcomes. On a larger scale, students who indicate stronger participation, sense of belonging, and positive school climate turn out to perform better in large-scale assessments, as per the international evidence from the Organisation for Economic Co-operation and Development (OECD, 2023) at the system level. When taken together, these studies reaffirm that academic performance in public secondary schools is a direct result of continuous learner engagement, thus presenting a strong empirical justification for investigating the relationship between learners' engagement and academic performance.

Theoretical Underpinnings

Self-Determination Theory (SDT) was the primary theory upon which this research was based, while Achievement Goal Theory (AGT) was used to explain academic performance. Both theories enjoyed considerable usage in present-day educational research geared at uncovering the roles of motivation, participation, and goal orientations in learning behaviors and outcomes of secondary school students (Deci & Ryan, 2000; Elliot, Murayama, & Pekrun, 2011). SDT and AGT, working together, provide a unified theory that views learner engagement as a process and academic performance as an outcome; thus, they are very suitable for research in public secondary school settings.

Self-Determination Theory, which was put forth by Deci and Ryan (2000), claims that students will be engaged to a much greater extent if their fundamental psychological needs of autonomy, competence, and relatedness are fulfilled. Autonomy is about the degree to which students feel they are free to choose and take responsibility for their learning, competence is about students' feeling of their ability to carry out academic tasks, and relatedness is about students' having meaningful relationships with their teachers and classmates. The satisfaction of these needs leads to the learners exhibiting higher levels of participation in terms of behavior, emotions, and cognition with respect to the learning activities. Recent research has confirmed that in secondary educational settings the most important factors contributing to autonomy-supportive classrooms and positive teacher-student relationships are engagement and persistence in students' academic tasks (Jang, Kim, & Reeve, 2016; Ryan & Deci, 2020).

Achievement Goal Theory looks at academic performance from the angle of the goals that learners set for themselves in achievement situations. Elliot, Murayama, and Pekrun (2011) point out that learners usually come up with two types of goals: mastery goals which are aimed at developing one's competence and understanding, or performance goals which are focused on showing one's ability in comparison to others. It has become a regular finding that students with mastery goal orientation would be the ones utilizing deep learning strategies, being more persistent, and eventually having more stable academic outcomes, whilst performance-avoidance goals are associated with anxiety and lower attainment (Huang, 2016; Senko, Hulleman, & Harackiewicz, 2011). In secondary education, the students' goal orientations have a considerable impact on their study habits, assessment behaviors, and overall academic performance.

When considered together, Self-Determination Theory and Achievement Goal Theory form a solid theoretical base for the current research. SDT clarifies the reasons for and the ways in which students get involved in learning by meeting their psychological needs, while AGT clarifies the role of engagement in the academic performance of students through their goal orientations and achievement behaviors (Ryan &

Deci, 2020; Elliot et al., 2011). Thus, the study is anchored on these theories which imply that learner engagement at a higher level—supported by freedom, skill, and love—leads to mastery-oriented learning that ultimately improves academic performance. Such a combined theoretical point of view not only helps to understand better but also to review the relationship between learners' engagement and academic performance of the public secondary school students more thoroughly.

Objectives of the Study

This study aimed to examine the link between the learners' engagement and academic performance in public secondary schools within a cluster of a large-sized division of a highly urbanized city in Negros Island Region during the school year 2025 - 2026. Specifically, this study sought answers to the following questions: What is the profile of the respondents in terms of sex, grade level, parents' highest educational attainment, average family monthly income, and number of siblings? What is the level of learners' engagement in terms of the areas academic engagement, social engagement, and emotional engagement? What is the level of academic performance of these learners in the first quarter when grouped according to the aforementioned variables? Is there a significant difference in the level of learners' engagement when grouped and compared according to the aforementioned variables? Is there a significant difference in the level of academic performance when grouped and compared according to the aforementioned variables? And, is there a significant relationship between the levels of learners' engagement and academic performance?

METHODS

This section presents the research design, study respondents, instrumentation, data-gathering procedure, data analysis and statistical tools, and ethical consideration.

Research Design

A descriptive research design is a non-experimental method that aims to describe systematically the characteristics, behaviors, or conditions of a population without manipulating the variables, as they occur naturally. In educational research, descriptive designs are frequently used to study the existing levels, patterns, and relationships among variables, like learner engagement and academic performance. Creswell and Creswell (2018) noted that descriptive research is suitable when the main goal of the study is to use quantitative data obtained through surveys, records, or assessments to provide an accurate depiction of the situations, individuals, or phenomena. This design enables researchers to quantify variables, summarize trends, and develop empirical descriptions that mirror real educational contexts, especially in school-based studies.

The current study is best served by this research design since the intention is to look into the present levels of learners' engagement and academic performance and to find out the connection between these variables, that too without the use of any intervention or treatment. Besides, it is good for the detection of patterns and relationships that can let school managers and teachers know the current situation and where to they need to work on. Creswell and Creswell (2018) have pointed out that descriptive research is one of the best ways to get an empirical basis for understanding educational phenomena and it also provides the

foundation for the future experimental or intervention-based studies, thus it being the right methodological choice for this investigation.

Study Respondents

This study's respondents were 373 out of 12,660 junior high school learners in a cluster in a large-sized division in a highly urbanized city in NIR. Cochran formula was applied to find the sample size. Stratified random sampling was employed for the respondents' selection. This technique is appropriate because the population consists of learners from multiple schools with diverse backgrounds, ensuring that each subgroup or stratum is fairly represented in the study. Selecting participants from each stratum, minimizes sampling bias and enhances the generalizability of the findings. As Creswell (2014) explains, stratified sampling minimizes biases caused by the over- or under-representation of naturally unequal groups such as large and small schools and allows researchers to compare meaningful patterns across strata, including differences in classroom management or student engagement based on school size.

Instrument

This study utilized a self-made survey questionnaire to determine the learners' engagement, while secondary data on academic performance. The instrument consisted of two parts: Part I gathered respondents' profile information, including sex, grade level, parents' highest educational attainment, average family monthly income, and number of siblings, while Part II contained 24 items covering three areas related to learner engagement, with eight items per area. Responses were measured using a five-point Likert scale ranging from 5 (Always) to 1 (Never). And, the learners' academic performance was based on their first-quarter report card average for School Year 2025–2026.

The validity of the instrument was established with five expert validators who are recognized education professionals, including Chief Education Supervisors and Public Schools District Supervisors within the division. Validation followed the criteria of Good and Scales, with interpretation ranges from Poor to Excellent. The instrument obtained a validation mean of 4.93, interpreted as Excellent, indicating high validity.

Reliability was determined using Cronbach's alpha to assess internal consistency. A pilot test was conducted among 32 learners who were not part of the actual respondents and were drawn from the same cluster. The learner engagement scale yielded a reliability coefficient of 0.888, interpreted as Good, confirming that the research instrument is reliable.

Data Gathering and Procedure

After administering the validity and reliability tests, and upon approval of the schools division superintendent, the questionnaires were administered to the target respondents. The questionnaires were gathered, recorded, and analyzed. The data gathered from the responses of the respondents were tallied and tabulated using the appropriate statistical tools. The encoded data was processed using SPSS.

Data Analysis and Statistical Treatment

Objectives 1 to 3 employed a descriptive analytical scheme, using frequency counts and percentages as statistical tools to assess the profile of respondents, mean to assess the level of learners' engagement across the three areas and level of academic performance. Objectives 4 and 5 utilized a comparative analytical scheme, applying the Mann-Whitney U test to determine significant differences in the levels of learners' engagement and academic performance when grouped and compared according to the aforementioned variables. Lastly, objective 6 used Spearman rho to examine the significant relationship between the levels of learners' engagement and academic performance.

Ethical Consideration

The study strictly observed ethical research standards by ensuring the protection of respondents' rights and welfare throughout the research process. Since the respondents were minors, the researchers secured written informed consent from parents or legal guardians and obtained assent from the learners prior to data collection. Participation in the study was voluntary, and respondents were clearly informed of the purpose of the study, the procedures involved, and their right to withdraw at any time without penalty. To minimize potential harm, the confidentiality of all responses was guaranteed, and the anonymity of the respondents was maintained during data gathering, analysis, and reporting. Moreover, the study complied with the provisions of Republic Act No. 10173, otherwise known as the Data Privacy Act of 2012, which mandates the lawful, fair, and secure processing of personal and sensitive information.

RESULTS AND DISCUSSION

This section presents, analyzes, and interprets the data gathered to carry out the predetermined objectives of this study.

Profile of Respondents

Table 1: *Profile of Respondents*

Variables	Categories	Frequency	Percentage
Age	Male	195	52.30
	Female	178	47.70
Grade Level	Lower (Grade 7 & 8)	184	49.30
	Higher (Grade 9 & 10)	189	50.70
Highest Educational Attainment	Lower (College Level)	266	71.30
	Higher (Bachelor and Post Graduate Level)	107	28.70

Average Monthly Income	Family of Siblings	Lower (less than P19,100) Higher (P19,100 and above)	229 144	61.40 38.60
		Few (less than 3 siblings) Many (3 and above)	194 179	52.00 48.00
		Total	373	100

Table 1 presents the demographic profile of the 373 respondents, showing that males slightly outnumber females (52.30% vs. 47.70%), and there is a balanced representation across lower (Grades 7–8) and higher (Grades 9–10) grade levels. Having representation across sexes and grade levels enhances the generalizability of findings related to learners' engagement and academic performance. Recent studies indicate that learner engagement often changes as students progress through secondary grades, with engagement tending to decline in higher grade levels due to increased academic demands and developmental transitions, which may subsequently influence academic outcomes (Weiland, 2024).

The socioeconomic profile of the respondents reveals that a majority come from families with lower average monthly income (61.40%) and parents with lower educational attainment (71.30%). These characteristics are typical of public secondary school populations and provide important context for understanding learners' engagement and academic performance. Recent empirical research continues to demonstrate that socioeconomic status and parental education are significant predictors of students' academic outcomes, as these factors affect access to learning resources, parental support, and academic expectations at home (Oduro-Ofori et al., 2023).

With respect to family size, respondents are almost evenly divided between those with fewer than three siblings (52.00%) and those with three or more siblings (48.00%). Contemporary studies suggest that family context, including the number of siblings, may influence learners' engagement and academic performance, as larger family size can be associated with diluted parental attention and limited educational resources (Rakesh, 2024). Overall, the demographic characteristics of the respondents underscore the importance of considering background variables when interpreting learners' engagement and academic performance in public secondary schools.

Level of Learners' Engagement

Table 2: *Level of Student Engagement in the Area of Academic Engagement*

Area	Mean	Interpretation
a. Academic Engagement		
<i>As a student, I...</i>		
1. Listen and pay attention to our teacher attentively.	4.09	High Level

2. Apply lessons learned to real-life situations.	3.95	High Level
3. Ask questions for clarifications.	3.78	High Level
4. Seeks research for additional information on our lessons.	3.76	High Level
5. Enjoy activities that require critical thinking.	3.93	High Level
6. Share my opinion with analysis.	3.70	High Level
7. Participate actively in classroom discussions and group activities.	4.10	High Level
8. Complete and submit quality performance tasks.	3.95	High Level
Overall Mean	3.91	High Level

Table 2 presents the level of student engagement in the area of academic engagement, with an overall mean score of 3.91, interpreted as "High Level." The highest obtained mean score was 4.10 in item 7, "Participate actively in classroom discussions and group activities", interpreted as "High Level." Item 6 states, " Share my opinion with analysis" which got the lowest mean score of 3.70, which is interpreted as "High Level."

The data imply that students demonstrate a high level of academic engagement, as shown by the overall mean of 3.91. This indicates that learners are generally motivated, attentive, and actively involved in their academic tasks. The highest mean score of 4.10, reflected in "Participate actively in classroom discussions and group activities," suggests that students are highly engaged in collaborative learning experiences, showing strong participation and interaction during lessons. Meanwhile, the lowest mean score of 3.70 for "Share my opinion with analysis," though still interpreted as high, indicates that students may benefit from further support in expressing deeper, analytical insights. Overall, the findings highlight strong student engagement, with opportunities to strengthen critical thinking and analytical communication skills.

The findings of this study are supported by Amarilla et al. (2025), who reported a high level of academic and social engagement among learners in the new normal. In their study, learners demonstrated strong participation in classroom discussions, attentiveness to lessons, and active involvement in academic tasks—patterns that closely mirror the results in Table 2, where the overall mean of 3.91 indicates a high level of academic engagement. The high mean score for active participation in discussions and group activities further aligns with Amarilla et al.'s conclusion that collaborative and interactive learning environments significantly enhance student engagement. However, similar to the present findings, Amarilla et al. also noted that while learners are generally engaged, higher-order skills such as analytical expression and critical thinking require continued instructional support, reinforcing the need for strategies that promote deeper cognitive engagement.

Table 3: *Level of Student Engagement in the Area of Social Engagement*

Area	B. Social Engagement	Mean	Interpretation
<i>As a student, I...</i>			
1. Participate actively in classroom discussions	4.04	High Level	
2. Participate collaboratively in group projects.	4.08	High Level	
3. Join in a group study sessions.	3.87	High Level	
4. Engage actively in school clubs or organizations.	3.72	High Level	
5. Volunteer for school outreach activities.	3.40	Moderate Level	
6. Use social media to promote educational advocacy.	3.42	Moderate Level	
7. Respect the rights and opinions of others in the classroom.	4.19	High Level	
8. Participate in different community activities with my peers.	3.86	High Level	
Overall Mean	3.82	High Level	

Table 3 shows the overall mean scores of 3.82 on the level of student engagement in the area of social engagement interpreted as high level. Item No. 7 which states “Respect the rights and opinions of others in the classroom” got the highest mean score of 4.19, interpreted as high level. Meanwhile, Item No. 5 which states “Volunteer for school outreach activities” got the lowest mean score of 3.10, interpreted as moderate level.

The results indicate that students demonstrate a high level of social engagement, as reflected by the overall mean score of 3.82. This suggests that learners generally interact positively with their peers, participate in social aspects of classroom life, and maintain respectful relationships. The highest mean score of 4.19 for the item “Respect the rights and opinions of others in the classroom” highlights students’ strong interpersonal awareness and their ability to maintain harmonious interactions. This finding implies that students value inclusive and mutual respect, which contributes to a supportive and collaborative classroom environment.

Meanwhile, the lowest mean score of 3.10 for “Volunteer for school outreach activities,” interpreted as moderate, indicates that although students are socially engaged within the classroom, they are less involved in activities that extend beyond the school community. This suggests limited participation in outreach initiatives, possibly due to time constraints, limited exposure, or competing academic priorities. While overall social engagement is strong, the results highlight the need for programs that encourage greater

student involvement in community-based activities, which can further enhance social responsibility and civic engagement.

This claim is supported by Powell et al. (2023), who found that strong student-teacher relationships and positive peer interactions enhance students' sense of belonging, fostering a respectful classroom atmosphere. Teachers can promote respect by supporting students' emotional well-being, involving them in non-academic activities, adapting lessons to their identities, and using structured group work to build peer connections, ultimately creating a safer and more cohesive learning environment.

Table 4: *Level of Student Engagement in the Area of Emotional Engagement*

Area	C. Emotional Engagement	Mean	Interpretation
<i>As a student, I...</i>			
1. Show active participation in classroom activity.	4.13	High Level	
2. Show interest in every classroom task.	4.05	High Level	
3. Develop a harmonious relationships with peers.	4.02	High Level	
4. Seek help and support to teachers when needed.	3.80	High Level	
5. Demonstrate good leadership in group activities.	3.82	High Level	
6. Embrace the diverse cultures of my classmates.	3.70	High Level	
7. Respect the opinions and ideas of my classmates, teachers, and school staff.	4.46	High Level	
8. Shows resilience and positivism in learning difficulties.	4.06	High Level	
Overall Mean	4.00	High Level	

Table 4 shows the overall mean scores of 4.00 on the level of student engagement in the area of emotional engagement interpreted as high level. Item No. 7 which states "Respect the opinions and ideas of my classmates, teachers, and school staff" got the highest mean score of 4.46, interpreted as very high level. Meanwhile, Item No. 6 which states "Embrace the diverse cultures of my classmates" got the lowest mean score of 3.70, interpreted as high level.

The results indicate that students demonstrate a high level of emotional engagement which suggests that learners are generally attentive, empathetic, and responsive to classroom interactions. Students high regard in respecting opinions and ideas of their classmates and school staff reflects students' strong interpersonal skills and their ability to maintain a positive and respectful classroom climate. Embracing the diverse cultures of others, indicates that students may need further encouragement to fully appreciate and

engage with cultural diversity in the classroom. This suggests opportunities for teachers to integrate culturally responsive activities and discussions that promote inclusive and understanding.

In connection with this, research study of Kratochvílová & Havel (2013) highlights that respect in schools means accepting every person for who they are. In inclusive schools, showing respect among students, teachers, staff, and administrators is key to building a positive school climate and encouraging understanding and appreciation of everyone's differences. Additionally, research by Lee et al. (2023), found that students' ethnic and cultural identities strongly influenced their engagement in classrooms; when students felt that their cultural backgrounds were recognized and valued, their emotional engagement and motivation increased.

Level of Learners' Academic Performance

Table 5: *Level of Academic Performance for the School Year 2025-2026 when grouped according to the aforementioned variables*

Variables	Categories	Mean	Interpretation
Sex	Male	86.45	Very Satisfactory
	Female	86.96	Very Satisfactory
Highest Educational Attainment	Lower	86.62	Very Satisfactory
	Higher	86.88	Very Satisfactory
Grade Level	Lower	86.56	Very Satisfactory
	Higher	86.82	Very Satisfactory
Number of Siblings	Few	87.04	Very Satisfactory
	Many	86.32	Very Satisfactory
Average Family Monthly Income	Lower	86.22	Very Satisfactory
	Higher	87.44	Very Satisfactory

Table 5 reveals that learners across all categories attained Very Satisfactory academic performance, showing minimal variation among the different groups. This pattern demonstrates that academic achievement is relatively stable regardless of sex, grade level, parental education, income bracket, or number of siblings.

The uniformity in mean scores suggests that these demographic and socioeconomic factors exert only a slight influence on learners' performance. This consistency implies that the school's instructional support and learning environment may be effective in helping students maintain strong academic outcomes regardless of their backgrounds. In other words, the consistency in scores suggests that the school's internal systems rather than students' demographic characteristics play a more decisive role in shaping academic

achievement. In effect, strong school-based supports help ensure that learners achieve comparable academic outcomes, even when their home circumstances differ.

These findings are supported by the study of Lusa et al. (2025), which examined learning styles and academic performance of BEED students and found that academic performance remained at a satisfactory to very satisfactory level across different learner profiles. Their results indicated minimal variation in academic achievement when grouped according to demographic characteristics, suggesting that individual and contextual differences do not necessarily lead to large performance gaps when instructional support is adequate. Similarly, the present study shows that learners across sex, grade level, parental educational attainment, family income, and number of siblings consistently attained Very Satisfactory academic performance.

Comparative Analyses in the Levels of Learners' Engagement

Table 6. *Difference in the Level of Learner Engagement in the Area of Academic Engagement when grouped and compared according to the aforementioned variables*

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Sex	Male	195	184.62	16890.000	0.654		Not Significant
	Female	178	189.61				
Grade Level	Lower	184	187.14	17363.000	0.981		Not Significant
	Higher	189	186.87				
Highest Educational Attainment	Lower	266	178.59	11995.000	0.017	0.05	Significant
	Higher	107	207.90				
Average Family Monthly Income	Lower	229	182.07	15358.500	0.264		Not Significant
	Higher	144	194.84				
Number of Siblings	Few	194	175.82	15193.500	0.037		Significant
	Many	179	199.12				

Table 6 presents the findings on the difference in the level of learner engagement in the area of academic engagement when grouped and compared according to sex, grade level, parents' highest educational attainment, average family monthly income and number of siblings.

The table shows that when learners were grouped according to gender, there was no significant difference in the level of learner engagement in the area of academic engagement between male and female learners. The mean rank was 184.62 for male group and 189.61 for female group. The Mann-Whitney U test yielded a value of 16890.000 at a p-value of 0.654, indicating no significance at the 0.05 level of significance. Therefore, the null hypothesis, which states that there is no significant difference in the level of learner engagement when grouped as male and female, is accepted. This suggests that gender does play a significant role on how learners perceive their teachers' support for academic engagement. When learners were classified based on their grade level, learners obtained mean ranks of 187.14 and 186.87 for different groups. The Mann-Whitney U test resulted in a value of 17363.000 at a p-value of 0.981. Since the p-value is greater than the significance level of 0.05, it shows that there is no significant difference in the level of learner engagement in the area of academic engagement based on their grade level. Therefore, the null hypothesis is accepted. The table shows a significant difference in the level of learner engagement in the area of academic engagement when grouped based on the parents' highest educational attainment. Those learners whose parents fall under the lower category (266 in number) obtained a mean rank of 178.59, while learners whose parents are in the higher category (107 in number) obtained a mean rank of 207.90. The Mann-Whitney U test resulted in a value of 11995.000 at a p-value of 0.017. Since the p-value is less than the significance level of 0.05. Therefore, the null hypothesis is rejected.

When categorized as to average family monthly income, learners received mean ranks of 182.07 and 194.84 across two groups. The Mann-Whitney U test yielded a value of 15358.500 with a p-value of 0.264. Because this p-value is above the significance level of 0.05 threshold, therefore, there is no significant difference in the level of learner engagement in the area of academic engagement based on their average family monthly income. Thus, the null hypothesis is rejected. The level of learner engagement in the area of academic engagement significantly differ based on the number of siblings in the family. The mean rank for fewer group was 175.82, and for the many group, it was 199.12. The Mann-Whitney U test yielded a value of 15193.500 at a p-value of 0.037, indicating significance.

In summary, the results from Table 6 indicate that the level of learner engagement in the area of academic engagement significantly differed based on learners' parents' highest educational attainment and number of siblings. This implies that learners' academic engagement is influenced by their family background, with parental educational attainment and sibling structure shaping how actively they participate in academic tasks. However, no significant differences were found when learners were grouped according to sex, grade level, and average family monthly income suggesting that these factors do not strongly influence learners' academic engagement in class. Overall, the findings highlight that family-related factors play a more meaningful role in shaping learners' academic engagement than individual demographic characteristics such as sex, grade level, or income.

Research supports the finding that family background influences learners' academic engagement. For instance, Jeynes (2012) found that parental educational attainment positively affects students' involvement and performance in school, suggesting that more educated parents can provide support that encourages active academic participation. Similarly, Baron (2025) reported that parental involvement, linked to educational attainment, positively predicted student engagement. These findings support the idea that parental education and family background shape learner engagement more than individual demographics. In addition, Yidana and Arthur (2024) found that male and female students showed similar engagement when accounting for self-esteem, indicating that gender had no significant effect similar to the result of this study.

Table 7. *Difference in the Level of Learner Engagement in the Area of Social Engagement when grouped and compared according to the aforementioned variables*

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Sex	Male	195	183.44	16660.000	0.503		Not Significant
	Female	178	190.90				
Grade Level	Lower	184	188.57	17098.500	0.780		Not Significant
	Higher	189	185.47				
Highest Educational Attainment	Lower	266	175.98	11300.000	0.002	0.05	Significant
	Higher	107	214.39				
Average Family Monthly Income	Lower	229	181.20	15160.500	0.189		Not Significant
	Higher	144	196.22				
Number of Siblings	Few	194	179.80	15966.000	0.178		Not Significant
	Many	179	194.80				

Table 7 presents the findings on the difference in learner engagement levels in the area of social engagement when grouped and compared according to sex, grade level, parents' highest educational attainment, average family monthly income and number of siblings.

When learners were classified based on their gender, there was no significant difference in the level of learner engagement. The mean rank for 195 male learners was 183.44, and for 178 female learners, it was 190.90. The Mann-Whitney U test yielded a value of 16660.000 at a p-value of 0.503, indicating no significant difference. Therefore, the null hypothesis was accepted, suggesting that no significant difference in the level of learner engagement in the area of social engagement based on gender. This means that male and female learners exhibit similar levels of social engagement in school.

The table shows no significant difference in the level of learner engagement in the area of social engagement when grouped based on their grade level. The mean rank for 184 learners within the lower grade level was 188.57, and for 189 learners within the higher grade level, it was 185.47. The Mann-Whitney U test yielded a value of 17098.500 at a p-value of 0.780, which indicates no significant difference. Therefore, the null hypothesis is accepted, which states that there is no significant difference in the level of learner engagement in the area of social engagement based on their grade level. This suggests that grade level does not influence how learners engage socially within the school environment.

When learners were grouped based on their parents' highest educational attainment, there was a significant difference in the level of learner engagement in the area of social engagement. The mean rank for learners with parents under lower educational attainment was 175.98, and for those with higher educational attainment, it was 214.39. The Mann-Whitney U test yielded a value of 11300.000 at a p-value of 0.002, indicating a significant difference. Therefore, the null hypothesis was rejected, suggesting a significant difference in learner engagement level based on their parents' highest educational attainment. This means that learners whose parents with higher educational attainment generally report higher levels of social engagement than those with lower educational attainment.

The table shows no significant difference in the level of learner engagement in the area of social engagement when grouped based on their average family monthly income. The mean rank for 229 learners within the lower level income was 181.20, and for 144 learners within the higher level income, it was 196.22. The Mann-Whitney U test yielded a value of 15160.500 at a p-value of 0.189, which indicates no significant difference. Therefore, the null hypothesis is accepted, which states that there is no significant difference in the level of learner engagement in the area of social engagement when grouped based on their average family monthly income. This suggests average family monthly income does not influence how learners engage socially within the school environment.

When learners were grouped based on the number of siblings in a family, it was shown that there is no significant difference in the level of learner engagement in the area of social engagement. The mean rank for learners with fewer siblings was 179.80, and for those under the many sibling category, it was 194.80. The Mann-Whitney U test yielded a value of 15966.000 at a p-value of 0.178, indicating no significant difference. Therefore, the null hypothesis was accepted, suggesting a significant difference in learner engagement level based on the number of siblings. This means that learners with fewer siblings exhibits similar levels of social engagement as those with many siblings.

In summary, the results from Table 7 suggest that parents' highest educational attainment significantly influence the level of learner engagement when it comes to social engagement. However, learners' social engagement is the same based on sex, grade level, average family monthly income and number of siblings indicating that these demographic factors do not substantially shape how learners interact socially in school.

In line with these findings, a study on parental education and involvement significantly influence students' engagement: for example, parental educational involvement was positively associated with middle-school students' learning engagement, with gratitude and hope partly mediating this relationship (Li et al., 2023). These insights underscore by contrast, in China, parental education but not family income per se was linked to children's reading achievement primarily through parental involvement (Chen & Liu, 2018), and positive parenting (rather than socioeconomic status itself) predicted student engagement in a Korean sample (Kim & Park, 2025).

Table 8. *Difference in the Level of Learner Engagement in the Area of Emotional Engagement when grouped and compared according to the aforementioned variables*

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Sex	Male	195	178.69	15734.500	0.118	0.05	Not Significant

	Female	178	196.10			
Grade Level	Lower	184	187.49	17297.000	0.930	Not Significant
	Higher	189	186.52			
Highest Educational Attainment	Lower	266	177.40	11678.500	0.007	Significant
	Higher	107	210.86			
Average Family Monthly Income	Lower	229	182.70	15503.000	0.330	Not Significant
	Higher	144	193.84			
Number of Siblings	Few	194	173.67	14777.000	0.013	Significant
	Many	179	201.45			

Table 8 shows the difference in the level of learner engagement in the area of emotional engagement when grouped and compared according to sex, grade level, parents' highest educational attainment, average family monthly income and number of siblings. The table includes the mean ranks and the results of the Mann-Whitney U test, a non-parametric test used to compare two independent groups. When classified according to sex, the level of learner engagement obtained a mean rank of 178.69 for 195 male learners and a mean rank of 196.10 for 178 female learners. The Mann-Whitney U test yielded a value of 15734.500 at a p-value of 0.118. Since the p-value (0.118) is greater than the significance level of 0.05, there is no significant difference in the level of learner engagement in the area of emotional engagement when grouped as younger and older. Therefore, the null hypothesis, which states no significant difference, is accepted.

When grouped as to grade level, learners obtained mean ranks of 187.49 and 186.52 for different groups. The Mann-Whitney U test resulted in a value of 17297.000 at a p-value of 0.930. Since the p-value is greater than the significance level of 0.05, there is no significant difference in the level of learner engagement in the area of emotional engagement based on their grade level. Therefore, the null hypothesis is accepted. When classified according to parents' highest educational attainment, learners whose parents fall under the lower category (266 in number) obtained a mean rank of 177.40, while learners whose parents are in the higher category (107 in number) obtained a mean rank of 210.86. The Mann-Whitney U test resulted in a value of 11678.500 at a p-value of 0.007. Since the p-value is less than the significance level of 0.05, there is a significant difference in the level of learner engagement in the area of emotional engagement when grouped based on the parents' highest educational attainment. Therefore, the null hypothesis is rejected.

When categorized as to average family monthly income, learners received mean ranks of 182.70 and 193.84 across two groups. The Mann-Whitney U test yielded a value of 15503.000 with a p-value of 0.330. Because this p-value exceeds the significance level of 0.05 threshold, there is no significant difference in the level of learner engagement in the area of emotional engagement based on their average family monthly income. Thus, the null hypothesis is accepted. When classified according to number of siblings, whose family size falls under the fewer category (194 in number) obtained a mean rank of 173.67,

while those falls under the many category (179 in number) obtained a mean rank of 210.45. The Mann-Whitney U test resulted in a value of 14777.000 at a p-value of 0.013. Since the p-value is lesser than the significance level of 0.05, there is significant difference in the level of learner engagement in the area of emotional engagement when grouped based on the number of siblings. Therefore, the null hypothesis is rejected.

In summary, the findings from Table 8 indicate a significant difference in the level of learner engagement in the area of emotional engagement based on parents' highest educational attainment and number of siblings. However, there is no significant difference level of learner engagement in the area of emotional engagement when grouped according to sex, grade level, and average family monthly income. This suggests that family-related factors, particularly parents' educational attainment and household size, play a meaningful role in shaping learners' emotional engagement. In contrast, demographic characteristics such as sex, grade level, and income appear to have little influence, indicating that emotional engagement is more closely tied to the home environment than to individual learner differences.

Parental Involvement and Students' Engagement Among Junior High School Students in a State University Laboratory High School in Mindanao, Philippines found that greater parental involvement was significantly associated with higher levels across behavioral, emotional, and cognitive engagement dimensions (Canoy et al., 2024). Meanwhile, studies indicate that gender, grade level, and socioeconomic status alone often have little direct effect on emotional engagement, with parental involvement being a much stronger predictor (Balaba & Bauyot, 2025).

Comparative Analysis in the Levels of Learners' Academic Performance

Table 9. *Difference in the Level of Academic Performance for the School Year 2025-2026 when grouped and compared according to the aforementioned variables*

Variable	Category	N	Mean Rank	Mann Whitney U	p-value	Sig. level	Interpretation
Sex	Male	195	182.53	16483.500	0.401	0.05	Not Significant
	Female	178	191.90				
Grade Level	Lower	184	183.01	16654.500	0.480	0.05	Not Significant
	Higher	189	190.88				
Highest Educational Attainment	Lower	266	184.88	13668.000	0.549	0.05	Not Significant
	Higher	107	192.26				
Average Family	Lower	229	175.75	13912.500	0.011	0.05	Significant
	Higher	144	204.89				

Monthly
Income

Number of Siblings	Few	194	194.20	15965.500	0.178	Not Significant
	Many	179	179.19			

Table 9 presents the differences in learners' academic performance when grouped according to sex, grade level, parents' highest educational attainment, average family monthly income, and number of siblings. The results reveal no significant differences in academic performance when learners were grouped by sex, grade level, parents' highest educational attainment, and number of siblings. Therefore, the null hypotheses which state that there is no significant difference in the level of academic performance when learners are grouped according to sex, grade level, parents' educational attainment, and number of siblings are accepted. These findings indicate that learners across these categories demonstrate comparable academic performance, suggesting that these demographic factors do not strongly influence learners' academic outcomes.

In contrast, a significant difference in academic performance was observed when learners were grouped according to average family monthly income, with learners from higher-income families achieving higher academic performance than those from lower-income families. Therefore, the null hypothesis which states that there is no significant difference in the level of academic performance when learners are grouped according to average family monthly income is rejected. This result implies that family income plays a meaningful role in shaping learners' academic performance, possibly due to differences in access to educational resources, academic support, and learning opportunities.

These results are consistent with the findings of Maculada et al. (2025), who reported that academic performance does not significantly differ across several learner background variables. Similar to the present study, their results showed no significant differences in academic performance when learners were grouped by sex, grade level, parents' educational attainment, and number of siblings, suggesting that these demographic factors alone do not strongly determine academic outcomes. However, the significant difference observed in academic performance when grouped by average family monthly income supports Maculada et al.'s conclusion that contextual and socioeconomic factors linked to the home environment may still influence learners' academic achievement.

Relational Analysis Between the Level of Learners' Engagement and Academic Performance

Table 10. *Relationship between the Level Learner Engagement and the Level of Academic Performance*

Variable	rho	p-value	Sig. level	Interpretation
Level of Student Engagement	1.000	0.052	0.05	Not Significant

Level of Academic Performance

Table 10 presents the relationship between the level of learner engagement and the level of academic performance. The table indicates that Spearman's rho value, which measures the strength and direction of the relationship between the two variables, is 1.000. The p-value associated with the correlation is 0.052. In statistical hypothesis testing, the p-value represents the probability of obtaining results as extreme or more extreme than what was observed if the null hypothesis were true. In this case, the null hypothesis states that there is no relationship between the level of the learner engagement and the level of academic performance. The significance level of the test is given as 0.05, the commonly used threshold in hypothesis testing. If the p-value is less than or equal to the significance level (in this case, 0.05), it is considered statistically significant, and we reject the null hypothesis in favor of the alternative hypothesis, indicating a relationship between the variables. On the other hand, if the p-value is greater than the significance level, it fails to reject the null hypothesis, suggesting that there is no significant relationship between the variables.

In Table 10, the p-value is 0.052, greater than 0.05. Therefore, we fail to reject the null hypothesis. This means there is no statistically significant relationship between the level of learner engagement and the level of academic performance based on the data provided. The correlation between these two variables is not strong enough to be considered significant at the 0.05 level of significance.

In summary, the results suggest that based on the data analyzed, there is no significant relationship between the level of learner engagement and the level of academic performance implying that while engagement is important, other factors may play a more decisive role in influencing academic outcomes.

In a pilot study of 44 engineering students, Correlation between Classroom Engagement and Academic Performance of Engineering Students by Mazumder et al. (2020) reported only a weak relationship between classroom engagement and academic performance, concluding that higher engagement did not necessarily lead to better performance.

On the other hand, several studies support the finding that student engagement significantly impacts academic performance as opposed to this study's result. Çali et al. (2023) found that behavioral, cognitive, and emotional engagement are positively correlated with academic success, with behavioral engagement emerging as the strongest predictor. Similarly, Williams et al. (2017) demonstrated that students who are socially engaged particularly those who maintain strong peer interactions tend to perform better academically, emphasizing the importance of collaborative learning environments.

Conclusion

The demographic profile of the respondents reveals a balanced distribution in terms of sex and grade level, with a substantial proportion of learners coming from families with lower average monthly income and parents with lower educational attainment. This profile mirrors the prevailing context of public secondary schools and provides a grounded basis for interpreting learners' engagement and academic performance. While individual demographic characteristics alone did not appear to exert a strong influence on learning outcomes, the findings underscore the importance of situating educational experiences within

learners' broader familial and socioeconomic contexts, as these conditions shape access to academic resources, parental support, and learning opportunities.

The study further established that learners generally exhibited a high level of engagement across academic, social, and emotional dimensions, reflecting a learning environment characterized by active participation, positive peer interaction, and respectful interpersonal relationships. Such findings suggest that the school climate and instructional practices are effective in fostering student involvement and emotional responsiveness. Nonetheless, comparatively lower levels of engagement in analytical expression, community-oriented activities, and cultural appreciation indicate areas requiring intentional pedagogical intervention. These results imply that while engagement is robust at the surface level, sustained efforts to promote deeper cognitive processing, civic responsibility, and culturally responsive teaching are necessary to further enrich the quality of learners' engagement.

With respect to academic performance, learners consistently achieved a Very Satisfactory level across most demographic groupings, suggesting that academic outcomes are generally stable and supported by effective school-based instructional systems. However, the significant influence of average family monthly income on academic performance highlights the persistent role of socioeconomic inequality in shaping educational achievement. Moreover, the absence of a statistically significant relationship between learner engagement and academic performance suggests that academic success is mediated by a complex interplay of structural, instructional, and contextual factors beyond engagement alone. Collectively, these findings emphasize the critical role of schools in providing equitable learning environments while simultaneously pointing to the need for targeted policies and interventions that address socioeconomic disparities to ensure sustained and inclusive academic success.

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