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Original Article

# Co-Curricular Involvement and Academic Performance of Basic Education Learners in a Philippine University

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**Abstract.** Education plays a vital role in the holistic development of learners. However, learning extends beyond the confines of the classroom and occurs in various contexts and experiences. Grounded on Astin's Theory of Student Involvement (1984), this study examined how students' investment of time, energy, and commitment in co-curricular activities influences academic performance. Using a correlational research design, 220 learners were selected through stratified random sampling. A validated questionnaire was used to gather data on co-curricular involvement. General Weighted Average (GWA) was obtained through official academic records. Descriptive statistics, Kruskal–Wallis tests, Spearman's rank correlation, and Simple Linear Regression were employed in the analysis. Findings showed that Basic Education learners reported very high levels of involvement (median = 4), with the widest variation in Junior High School (SD = 0.641). Academic performance was strong overall, with 85.9% of students earning grades of 85 or higher, and more than half (53.2%) clustered in the 90–94 range. Significant differences in co-curricular participation emerged across departments ($\chi^2 = 8.80$, $p = 0.012$) and age groups ($\chi^2 = 12.0$, $p = 0.003$). Furthermore, a weak but significant positive correlation was found between co-curricular involvement and GWA ($r = 0.143$, $p = 0.034$), while regression analysis revealed a moderate positive relationship ($r = 0.374$), with participation accounting for 14% of the variance in GWA ($R^2 = 0.140$). The study concludes that co-curricular involvement supports strong academic performance, though its effects are modest and vary across grade levels. Structured programs at the elementary level foster consistent engagement, while adolescent learners thrive when opportunities balance autonomy and academic integration.

**Keywords:** *Academic performance; Basic education students; Co-curricular involvement; Correlation; Philippine university.*

Education is a key factor in shaping learners' knowledge, skills, and values, helping them reach their full potential and succeed in their chosen paths. Learning, however, does not take place only inside the classroom. Co-curricular activities have become an important part of holistic development. These activities, such as academic clubs, student organizations, cultural events, leadership training, and sports, help students connect classroom lessons to real-life experiences. They also help develop social skills, build confidence, and

strengthen abilities for personal and professional growth. Research has shown that such activities bring many benefits, including gains in socio-emotional skills, stronger identity formation, increased student engagement, and improved peer relationships (Berger et al., 2020; Ren et al., 2021). Other studies further suggest that participation in these programs can improve student motivation, attendance, and retention (Lang & Tapps, 2021; Stewart, 2022). In the Philippine context, basic education reforms under the K–12 curriculum emphasize holistic formation, learner-centered approaches, and the integration of 21st-century skills such as collaboration, critical thinking, and socio-emotional competence (Department of Education, 2016). Within this framework, learning extends beyond formal classroom instruction to structured co-curricular engagements that complement academic content and foster whole-person development.

More recent studies also show that co-curricular activities contribute to academic achievement and overall development by improving time management, organizational skills, teamwork, and problem-solving (Darmal & Weyar, 2024; Laghari, 2024; Noor, 2024). For instance, academic clubs provide opportunities to strengthen critical thinking and analytical reasoning, while cultural programs help foster creativity, cultural awareness, and community involvement (Hume, 2022; Wang, 2022). Leadership activities also contribute to decision-making, confidence, and social-emotional growth (Ahmed, 2020; Noor, 2024). In addition, these programs give students a healthy break from academic routines, often resulting in renewed focus and energy upon their return to studies (Lang & Tapps, 2021).

The literature further highlights the varied and context-specific impacts of co-curricular participation. Adisel et al. (2022) reported that entrepreneurship-related extracurricular programs improve business knowledge and readiness for self-employment. Sun (2022) showed that cultural and event-based activities help deepen appreciation for diversity and heritage. Scouting, as studied by Setiawan et al. (2021), strengthened discipline, leadership, and resilience, while Fujiyama et al. (2021) emphasized that peer networks formed in these spaces can influence students' academic attitudes. Similarly, Rahman et al. (2021) noted that involvement in value-oriented activities can reinforce moral and ethical development among adolescents.

Despite these findings, local literature on co-curricular involvement and its effects on students' academic performance remains limited. Few have used concrete institutional measures such as the General Weighted Average (GWA) to link co-curricular participation with academic performance. This creates a gap in understanding how these activities relate to achievement within Philippine schools, especially in private basic education institutions. Filling this gap is important because local data and culturally relevant evidence must guide effective policies, programs, and student services (Pluim, 2023).

Addressing this gap is particularly important given national commitments to improving educational quality and learner well-being. The Philippines, through the Department of Education, has emphasized whole-child development and inclusive learning environments aligned with the United Nations Sustainable Development Goals. Empirical, locally grounded evidence is therefore necessary to determine whether co-curricular engagement substantively contributes to academic achievement and to justify sustained institutional investment in such programs.

This study is anchored on Astin's Theory of Student Involvement (1984), as cited in Rahman et al. (2020). The theory explains that the quality and quantity of students' physical and psychological investments in structured activities positively affect learning outcomes. When students dedicate their time, energy, and emotional commitment to these activities, they are more likely to achieve meaningful learning and improved academic performance.

Accordingly, this research aimed to: (1) identify the level of involvement in co-curricular activities among BED students, (2) measure their academic performance using GWA, (3) determine the relationship between students' co-curricular activities involvement and academic performance, and (4) determine the extent to which co-curricular involvement predicts the academic performance of Basic Education Department learners at the University of Perpetual Help System DALTA – Molino Campus. The study sought to provide evidence-based insights that will contribute to academic literature and inform school strategies for student development, engagement, and achievement within the Philippine basic education by addressing these objectives.

Ultimately, aligned with global educational priorities, this study supports two key Sustainable Development

Goals (SDGs): SDG 4: Quality Education and SDG 3: Good Health and Well-being. Co-curricular activities directly advance SDG 4 by promoting holistic and inclusive learning experiences that strengthen academic competencies, critical thinking, leadership, and cultural awareness—skills essential for developing well-rounded and future-ready learners. At the same time, these activities contribute to SDG 3 by enhancing students' mental, emotional, and social well-being through positive peer interactions, creative outlets, and healthy engagement in school life. By supporting both quality education and learner well-being, co-curricular initiatives provide a strategic pathway for nurturing balanced, competent, and resilient students in the basic education setting.

## Methodology

### Research Design

This study adopted a quantitative correlational research design to explore how participation in co-curricular activities (CCAs) relates to students' academic performance in the Basic Education Department (BED). This approach was chosen because it allowed the researchers to examine the connection between variables without altering them. In this study, the independent variable was the extent of students' involvement in CCAs, while the dependent variable was their academic performance, measured through their General Weighted Average (GWA). A correlational design was particularly fitting for an educational context, where conducting controlled experiments is often not feasible. More importantly, it provided a way to assess both the strength and direction of the relationship between co-curricular participation and academic outcomes.

### Respondents of the Study

The respondents of this study were Basic Education Department (BED) students enrolled at the University of Perpetual Help System DALTA–Molino (UPHSD-Molino) for the School Year 2025–2026. The research focused on Grade 6, Grades 8–10, and Grade 12 students, as these year levels offered a diverse range of experiences in which co-curricular activities were actively implemented. Inclusion criteria were: (1) currently enrolled in the identified grade levels during SY 2025–2026; (2) officially registered in at least one recognized co-curricular activity during the first semester.

Using G*Power, the minimum required sample size was determined to be 220 respondents. At this sample size, the statistical power was calculated at 0.952, which exceeds the conventional 0.80 benchmark commonly used in social science research. Experts state that statistical power is adequate if it is 0.80 or higher (Lougheed et al., 1999; Steidl et al., 1997), as cited in Roxas (2022). This indicates that the study had sufficient power to detect medium effect sizes in both group-comparison and correlational analyses. As emphasized by Althubaiti (2022), maintaining adequate statistical power is essential to minimize the risk of error and ensure accurate and reliable findings. Also, to ensure fair representation of the student population, stratified random sampling was employed. Students were grouped by grade level, and proportional samples were drawn from each group. The sample distribution was as follows: Grade 6 (n = 46), Grade 8 (n = 49), Grade 9 (n = 44), Grade 10 (n = 42), and Grade 12 (n = 39).

### Data Collection Procedure

Data collection was conducted in accordance with university-approved protocols and established ethical standards. Prior to data gathering, the researchers secured approval from the University Research and Development Center. Informed consent forms and parents' assent forms were distributed to all participants to ensure confidentiality, anonymity, and voluntary participation. Also, the questionnaires were administered via two modalities: online via Google Forms and face-to-face via pen-and-paper distribution, depending on participants' accessibility. Clear instructions accompanied the questionnaire, indicating that respondents should read each statement carefully and select the option that best described the extent of their involvement in co-curricular activities. The data collection through questionnaires yielded a 100% response rate.

Academic performance data for the 1st Semester were obtained from officially recorded General Weighted Average (GWA) records and were validated through the Office of the Registrar. To ensure compliance with the Data Privacy Act of 2012, the researchers signed a non-disclosure agreement prior to accessing academic records. The integration of self-reported co-curricular involvement data with officially documented GWA ensured the accuracy, credibility, and reliability of the data used in the analysis. To ensure de-identification, each participant was assigned a unique research code. Names and student numbers were removed from the working dataset.

**Research Instrument**

The study employed an adapted questionnaire based on instruments developed by Berger et al. (2020) and Hume (2022). The adaptation process involved reviewing the original scales, selecting items that were directly relevant to the study's objectives, and modifying the wording to suit the Philippine basic education context and the characteristics of the respondents. Some items were rephrased for clarity and cultural appropriateness. The instrument underwent content validation by three research experts, yielding a Lawshe's Content Validity Index (CVI) of 0.92 using the averaging method. Pilot testing further established the instrument's reliability, yielding a Cronbach's alpha coefficient of 0.87, indicating high internal consistency.

The instrument was a 4-point Likert-type questionnaire consisting of two sections. The first section gathered demographic information, including grade level and academic track or strand. The second section measured students' level of involvement in co-curricular activities across five domains: Behavioral Involvement, Cognitive Engagement, Affective Commitment, Leadership and Initiative, and Skill Acquisition and Personal Development**.** Each item was rated using the following response format: 4 – Strongly Agree; 3 – Agree**;** 2 – Disagree**;** 1 – Strongly Disagree. Higher response values indicated higher levels of co-curricular involvement. Sample items included *"I regularly attend meetings or practices of my co-curricular activities"* (Behavioral Involvement) and *"I feel excited to join and participate in my co-curricular activities"* (Affective Commitment). These statements captured both observable behaviors and affective dimensions of student engagement.

For data analysis, the median score was computed for each item and for each domain. The use of the median was deemed appropriate given the ordinal nature of Likert-type data and its robustness to extreme values. Item-level medians were computed first. Domain scores were obtained by calculating the median of all items within each domain. An overall involvement score was then computed by taking the median of the five domain medians per respondent. Domain-level medians were then interpreted using the following scale: **3**.51 – 4.00 = Very High Involvement**;** 2.51 – 3.50 = High Involvement**;** 1.51 – 2.50 = Low Involvement**;** 1.00 – 1.50 = Very Low Involvement.

Academic performance was assessed using the General Weighted Average (GWA)**,** a standardized, institutionally recognized indicator of academic achievement. The integration of median-based domain scores and validated GWA records allowed for a rigorous examination of the relationship between students' co-curricular involvement and academic performance.

**Data Analysis Procedure**

Data were analyzed using Jamovi Statistical Software. Descriptive statistics—including frequency, percentage, standard deviation, and median—were computed to summarize respondents' demographics, levels of student engagement, and academic performance. The median was used as the primary measure of central tendency for engagement because it is more appropriate for Likert-scale or ordinal data, as it identifies the middle response without assuming equal intervals between categories (Jamieson, 2004). This approach is further supported by South et al. (2022), who emphasize that ordinal data are best summarized using the median and analyzed using nonparametric procedures. In contrast, the mean and parametric tests are more suitable for interval-level data.

Consistent with this rationale, the nonparametric Kruskal–Wallis test was employed to examine differences in ordinal engagement variables across groups, with Jamovi providing the corresponding chi-square statistics in the output. When significant differences were detected across departments (Grade School, JBHS, and SHS) and age groups, post hoc analyses were conducted using the Dwass–Steel–Critchlow–Fligner (DSCF) procedure to identify pairwise differences between groups.

To determine the extent to which co-curricular involvement predicts learners' academic performance in the Basic Education Department, linear regression analysis was performed. Following the pragmatic approach suggested by Lei et al. (2023), domain medians were treated as approximated continuous composite scores. This practice is widely supported in the psychometric literature, with multi-item scales demonstrating high internal consistency (Kusmaryono et al., 2022), as evidenced by the present study's reliability coefficient ($\alpha = 0.87$). Such composite scores approximate interval-level properties, thereby justifying the use of ordinary least squares (OLS) linear regression with minimal risk of bias (Tanujaya et al., 2022; Robitzsch, 2020).

**Ethical Considerations**

This study strictly adhered to established ethical standards in educational research to protect the rights, dignity,

and welfare of all participants. Prior to data collection, permission was secured from the appropriate school authorities, and participation was entirely voluntary. All respondents were provided with a written Informed Consent Form detailing the purpose of the study, procedures, duration, potential risks and benefits, confidentiality measures, and their right to withdraw at any time without penalty, with assurance that participation would not affect their grades or academic standing. For participants below 18 years old, parental or guardian consent was obtained, and an Assent Form written in age-appropriate language was provided to ensure that minor participants clearly understood the study and voluntarily agreed to participate. The researcher maintained utmost confidentiality and anonymity by excluding any personally identifiable information from the data. All collected data were properly disposed of after use. The study posed minimal risk, and participants were free to skip any items in the questionnaire they found uncomfortable. Finally, the findings are intended solely for academic purposes and do not necessarily reflect the overall quality of the teaching-learning process or instructional delivery of the University, but rather represent the perspectives of the selected respondents at the time of the study.

## Results and Discussion

### Level of Involvement in Co-Curricular Activities Among BED Students

Table 1 shows the level of student engagement in co-curricular activities across the Basic Education Department (BED), categorized into Senior High School (SHS), Junior Business High School (JBHS), and Grade School (GS). The results indicate that all three groups obtained a median score of 4, which falls under the "Very High Involvement" category. This finding suggests that students across all levels are highly engaged in co-curricular activities, reflecting strong participation and genuine interest beyond their academic requirements (Lastra, 2024; Vispo, 2024).

**Table 1.** *The Level of Involvement in Co-Curricular Activities Among BED Students*

| Department | Median | SD | Variance |
|---|---|---|---|
| Senior High School | 4 | 0.570 | 0.325 |
| Junior Business High School | 4 | 0.641 | 0.410 |
| Grade School | 4 | 0.000 | 0.000 |

Looking at variability, the Junior Business High School (JBHS) group recorded the highest standard deviation (SD = 0.641) and variance (0.410). These results indicate that levels of involvement among JBHS students were more spread out, with some showing very high participation and others showing lower participation. Similar observations were reported by Wang et al. (2024), who noted that adolescent involvement often becomes more varied due to differences in autonomy and personal interests. Gutierrez (2023) also found that academic pressures can affect the consistency with which adolescents participate in activities. By contrast, the Senior High School (SHS) group showed moderate variability (SD = 0.570, variance = 0.325), suggesting a more stable yet still diverse pattern of engagement. On the other hand, the Grade School (GS) group showed no variability at all (SD = 0.000, variance = 0.000), which indicates uniform participation. This outcome is likely linked to structured or mandatory programs at the elementary level, a trend also highlighted by O'Donnell et al. (2024) and supported by Wang (2023), who emphasized that structured after-school activities encourage consistent involvement.

These findings suggest that while student engagement in co-curricular activities is consistently high across all groups, participation patterns differ by department. Grade School students show the most uniform involvement, while JBHS students display the widest variation, possibly due to heavier workloads, changing interests, or time constraints. This suggests that more mature students may need more flexible and interest-based programs to stay engaged. Thus, there is a need for targeted strategies for higher grade levels, where interest, time, or motivation differences may affect participation. Rahman et al. (2021) also observed that co-curricular participation has positive effects on outcomes, even when the intensity of involvement varies. Similarly, Pérez-Guerrero et al. (2024) stressed the importance of applying proper statistical approaches when interpreting variability in ordinal data.

### Academic Performance Among BED Students

Table 2 presents the distribution of academic performance among Basic Education Department (BED) students across the Senior High School (SHS), Junior Business High School (JBHS), and Grade School (GS) levels. The findings reveal that most students (53.2%) attained grades within the 90–94 range, signifying a very satisfactory level of academic performance. Within this range, SHS students accounted for the largest proportion at 41.8%, followed by JBHS at 8.2% and GS at 3.2%. A smaller group of students, 19 or 8.7%, achieved outstanding

performance with grades between 95–100, with SHS contributing 5.9%, GS at 2.3%, and JBHS at only 0.5%. These results indicate that while high achievement is evident, only a limited number of students consistently attain the highest academic standards. Similar patterns were noted in Philippine studies (Lastra, 2024; Vispo, 2024), which found that while many students maintain satisfactory grades, few consistently reach the highest performance levels.

**Table 2.** *Academic Performance Among BED Students*

| General Average | Department | Counts | % of Total |
|---|---|---|---|
| 95-100 | SHS | 13 | 5.9% |
| | JBHS | 1 | 0.5% |
| | GS | 5 | 2.3% |
| 90-94 | SHS | 92 | 41.8% |
| | JBHS | 18 | 8.2% |
| | GS | 7 | 3.2% |
| 85-89 | SHS | 53 | 24.0% |
| | JBHS | 6 | 2.7% |
| | GS | 2 | 0.9% |
| 80-84 | SHS | 16 | 7.3% |
| | JBHS | 2 | 0.9% |
| | GS | 0 | 0.0% |
| 75-79 | SHS | 4 | 1.8% |
| | JBHS | 0 | 0.0% |
| | GS | 1 | 0.5% |

The second-largest concentration of students fell within the 85–89 range, comprising 61 students (27.7%). SHS students again dominated this group, representing 24.1% of the total, while JBHS and GS contributed 2.7% and 0.9%, respectively. Meanwhile, only 18 students (8.7%) were in the 80–84 range, and five students (2.3%) scored between 75–79. Notably, JBHS recorded no students in the lowest grade range, while GS had only one student, reflecting minimal representation of low academic performance across these departments. This aligns with Gutierrez (2023), who reported that co-curricular engagement in the Philippine setting helps prevent students from falling into the lowest academic categories, often by fostering motivation and persistence.

The cumulative percentage shows that 85.9% of BED students scored 85 or higher, indicating that most perform satisfactorily to excellent levels. When students with grades 80 and above are included, this proportion increases to 96.8%, suggesting that nearly all students meet or exceed academic expectations. These results imply that the BED consistently upholds high academic standards, with only a small subset of students requiring targeted interventions and additional academic support to improve their performance further. These findings are consistent with international evidence (Rahman, 2021; Wang, 2023), which shows that students involved in structured academic and extracurricular programs tend to maintain strong academic outcomes, though targeted support remains essential for those at risk of underperformance.

**Difference in the Level of Involvement in Co-Curricular Activities**

**Table 3.** *Kruskal–Wallis Test of Differences in Co-Curricular Involvement Across Departments*

| Variable | $\chi^2$ | *df* | *p* | Decision | Interpretation |
|---|---|---|---|---|---|
| Involvement in Co-Curricular Activities | 8.80 | 2 | 0.012 | Reject the $H_0$ | Significant |

The results presented in Table 3 indicate that the Kruskal–Wallis test produced a test statistic of $\chi^2 = 8.80$ with 2 degrees of freedom and a p-value of 0.012. This finding confirms a statistically significant difference in co-curricular involvement among the three departments: Senior High School (SHS), Junior Business High School (JBHS), and Grade School (GS). In other words, the extent of student participation in co-curricular activities is not uniform across these groups. Wang et al. (2024) observed similar patterns, which reported that younger students tend to exhibit more structured and consistent participation, while adolescents show greater variability as they gain autonomy and independence. Within the Philippine setting, Vispo (2024) likewise noted significant differences in extracurricular engagement across grade levels, with elementary learners participating more consistently than their counterparts in secondary schools. These results are also consistent with those of O'Donnell et al. (2024), who emphasized the influence of developmental stages and institutional structures on variation in student involvement across educational levels.

**Table 4.** *Dwass–Steel–Critchlow–Fligner (DSCF) Pairwise Comparisons for Differences in Co-Curricular Involvement Across Departments*

| Departments | | *W* | *p* | Interpretation |
|---|---|---|---|---|
| SHS | JBHS | -0.0433 | 1.000 | Not significant |
| SHS | GS | -4.2054 | 0.008 | Significant |
| JBHS | GS | -3.7508 | 0.022 | Significant |

The post hoc results using the Dwass–Steel–Critchlow–Fligner test (Table 4) indicate no significant difference in co-curricular involvement between Senior High School (SHS) and Junior Business High School (JBHS), with a p-value of 1.000. This indicates that the two groups have similar participation levels. However, significant differences were observed between SHS and Grade School (p = 0.008) and between JBHS and Grade School (p = 0.022). These findings suggest that Grade School students have a unique pattern of involvement compared to the older groups. This result can be explained by the more structured and often required programs at the elementary level, while older students are given greater freedom to choose the activities they wish to join. These results support the findings of O'Donnell et al. (2024) and Vispo (2024), who emphasized that developmental stage and school policies strongly influence participation across departments.

**Table 5.** *Kruskal–Wallis Test of Differences in Co-Curricular Involvement Across Age Groups*

| Variable | $\chi^2$ | *df* | *P* | Decision | Interpretation |
|---|---|---|---|---|---|
| Involvement in Co-Curricular Activities | 12.0 | 2 | 0.003 | Reject the $H_0$ | Significant |

Table 5 shows that the Kruskal–Wallis test produced a test statistic of $\chi^2 = 12.0$ with 2 degrees of freedom and a p-value of 0.003. This result indicates a statistically significant difference in co-curricular involvement across age groups, specifically among Older Adolescents (OA), Middle Adolescents (MA), and Young Adolescents (YA). The findings suggest that age plays an important role in the extent of student participation. Wang et al. (2024) also reported that patterns of involvement differ by developmental stage, with younger students exhibiting more structured, required participation while older students have greater freedom and flexibility. O'Donnell et al. (2024) further emphasized that extracurricular participation shapes adolescents' sense of belonging and school engagement, which becomes more varied as they mature. In the Philippine setting, Vispo (2024) found similar results, noting that younger learners often display more consistent participation than older students.

**Table 6.** *Dwass–Steel–Critchlow–Fligner (DSCF) Pairwise Comparisons for Differences in Co-Curricular Involvement Across Age Groups*

| Age Groups | | *W* | *p* | Interpretation |
|---|---|---|---|---|
| Older Adolescents | Middle Adolescents | -1.16 | 0.692 | Not significant |
| Older Adolescents | Young Adolescents | 4.66 | 0.003 | Significant |
| Middle Adolescents | Young Adolescents | 4.76 | 0.002 | Significant |

The Dwass–Steel–Critchlow–Fligner test for age groups (Table 6) indicates no significant difference between Older Adolescents (OA) and Middle Adolescents (MA), with a p-value of 0.692. This result shows that these two groups demonstrate similar levels of involvement. On the other hand, significant differences were found when comparing Young Adolescents (YA) with both OA (p = 0.003) and MA (p = 0.002). These findings suggest that younger students participate differently from their older peers. Younger learners often display more uniform and structured participation, which may be due to school requirements and closer teacher supervision. At the same time, older students tend to exercise more choice and independence in selecting their activities. These findings are consistent with those of Wang et al. (2024) and O'Donnell et al. (2024). In the Philippine context, Vispo (2024) also found that elementary students, who are usually categorized as Young Adolescents, participate more consistently than those in higher grade levels.

**Relationship Between Level of Involvement and Academic Performance**

**Table 7.** *Spearman's Rank Correlation Between Academic Performance and Level of Co-Curricular Involvement*

| Variables | *r* | *df* | *p* | Decision | Interpretation |
|---|---|---|---|---|---|
| Academic Performance and Level of Co-Curricular Involvement | 0.143 | 218 | 0.034 | Reject the $H_0$ | Significant |

Table 7 presents the Spearman's rank correlation analysis examining the relationship between students' academic performance and their level of co-curricular involvement. The test yielded a correlation coefficient of r = 0.143

with 218 degrees of freedom and a p-value of 0.034. The null hypothesis was rejected because the p-value was less than 0.05. This means a statistically significant relationship exists between academic performance and co-curricular involvement. The positive correlation coefficient suggests that as students increase their participation in co-curricular activities, their academic performance also improves slightly. Studies by Lastra (2024) and Gutierrez (2023) observed similar outcomes, finding that participation is positively associated with academic outcomes, though the effect is modest.

According to Cohen's (1988) guidelines, as cited in Gignac & Szodorai (2016), a value of 0.143 indicates a weak correlation, indicating that co-curricular involvement contributes to academic performance but only to a small degree. Other factors such as study habits, teaching quality, and student motivation may play a stronger role. International research also reflects this trend, with Rahman (2021) and Wang (2023) reporting positive but limited effects of extracurricular programs on academic achievement.

**Co-Curricular Involvement as a Predictor of Academic Performance of Basic Education Learners**

**Table 8.** *Linear Regression Results of Co-Curricular Involvement and Academic Performance of Basic Education Learners*

| Model | *r* | $R^2$ | Adjusted $R^2$ |
|---|---|---|---|
| 1 | 0.374 | 0.140 | 0.0672 |

**Note**. Models estimated using a sample size of N=220.

Table 8 presents the results of the simple linear regression analysis, which showed that co-curricular involvement was moderately positively related to academic performance ($r = 0.374$, $R^2 = 0.140$, Adj. $R^2 = 0.0672$, $N = 220$). This means that about 14% of the variation in students' academic performance can be explained by their level of participation in co-curricular activities. Moreover, the computed statistical power of 0.952 indicates a 95.2% chance of correctly identifying a true effect, confirming that the result is both statistically sound and practically meaningful. In practical terms, the finding suggests that students who are more actively engaged in co-curricular programs tend to achieve higher academic results. Although co-curricular participation accounts for only 14% of the variance, this portion is still educationally meaningful. It implies that, among the various factors that shape students' performance—such as study habits, family support, teaching quality, and mental health—co-curricular engagement alone contributes a noteworthy share—roughly one-seventh—of the total variation. Therefore, active participation in co-curricular activities leads to modest yet dependable improvements in students' academic achievement.

## Conclusion

The study found that student engagement in co-curricular activities varies significantly by department, grade level, and age. Grade School students exhibited more distinct and flexible engagement patterns than those in Junior Business High School (JBHS) and Senior High School (SHS), where participation was more stable. Similarly, younger adolescents differed significantly from middle and older adolescents, who showed no meaningful differences between them. These results suggest that early educational stages—particularly Grade School and early adolescence—are critical periods when engagement is more responsive to instructional and social influences. At the same time, involvement tends to stabilize as students mature.

Regression analysis indicated a moderate positive relationship between co-curricular involvement and academic performance ($r = 0.374$, $R^2 = 0.140$, $N = 220$), with co-curricular participation explaining about 14% of the variance in academic performance. Although modest, this effect underscores the meaningful contribution of co-curricular engagement to students' academic success. It highlights the role of schools in fostering environments where academic and non-academic experiences reinforce holistic development.

Grounded in Astin's Theory of Involvement, the findings affirm that students who invest more time, energy, and effort in co-curricular and learning-related activities achieve better academic outcomes. High involvement among Basic Education Department (BED) students reflects the effectiveness of structured, teacher-guided programs, particularly in Grade School. In contrast, the greater variability in JBHS and SHS suggests that increased autonomy shifts involvement toward personal motivation and priorities. Overall, the results support Astin's assertion that meaningful, quality engagement—beyond mere participation—is essential for sustained academic and personal growth.

Given these findings, schools should strengthen structured and teacher-guided co-curricular programs in Grade School, where engagement is more flexible and responsive, while designing autonomy-supportive, student-led opportunities for JBHS and SHS to sustain meaningful involvement. Emphasis should shift from mere participation counts to quality engagement aligned with academic goals, supported by faculty mentoring and academic monitoring systems. Future research should adopt longitudinal or quasi-experimental designs and include additional predictive variables to understand better the broader determinants of academic success in Basic Education contexts.

This study has several limitations. Its correlational design does not allow causal conclusions about the relationship between co-curricular involvement and academic performance. Academic achievement was measured using general averages, which may not reflect subject-specific outcomes, and co-curricular participation relied on self-reported data that may be affected by response bias. The sample was drawn from a single institution (N = 220), limiting generalizability to other school contexts. Moreover, since co-curricular involvement explained only 14% of the variance in academic performance ($R^2 = 0.140$), other relevant factors—such as family background, instructional quality, and student motivation—were not examined and may significantly influence academic outcomes.

## Contributions of Authors

All authors contributed equally to the conceptualization, data collection, writing, editing, and overall direction of the study.


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## Conflict of Interests

The authors declare no conflict of interest.


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