
HOME LEARNING ENVIRONMENT, PUPILS' BEHAVIOR, AND ACADEMIC PERFORMANCE OF GRADE II PUPILS: A QUANTITATIVE INVESTIGATION

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2. ABSTRACT

This study investigated the home learning environment, pupils' behavior, and academic performance of Grade II pupils across eleven public elementary schools in Kidapawan City District V. A descriptive-correlational design was employed with 100 elementary school teachers as respondents and proxy raters, selected through complete enumeration. A researcher-formulated survey questionnaire assessed the home learning environment across six dimensions — family support, facilities and materials, learning space, digital gadget usage, time management, and household support and discipline — and pupils' behavior across three dimensions: learning tasks, interaction with peers, and self-help tasks. Academic performance was measured through Mean Percentage Score (MPS). Weighted means, Pearson correlation, and multiple linear regression were used for data analysis. Results revealed a generally positive home learning environment, with household support ($M = 4.28$) and facilities/materials ($M = 4.25$) as the strongest dimensions, and digital gadget usage the lowest ($M = 3.85$). Pupils exhibited positive behaviors across all domains, with self-help tasks highest ($M = 4.26$). Academic performance was high ($MPS = 85.84$). All six home learning environment dimensions and all three behavioral dimensions showed significant positive correlations with MPS at the 1% level ($r = 0.460-0.594$ and $0.591-0.873$, respectively). Regression analyses confirmed that the home learning environment significantly predicts academic performance ($R^2 = 0.462$, $F = 7.474$, $p = 0.000$), with digital gadget usage as the strongest individual predictor ($\beta = 0.352$). Pupils' behavior was the most

robust predictor model ($R^2 = 0.764$, $F = 59.217$, $p = 0.000$), with self-help tasks dominant ($\beta = 0.863$).

3. KEYWORDS: Home learning environment; pupils' behavior; academic performance; digital gadgets; self-help tasks; Grade II; descriptive-correlational; Philippines.

4. INTRODUCTION

Teaching aims to ensure students acquire knowledge and develop skills for life. The process of learning, however, does not occur exclusively within the school — the home environment is an equally critical determinant of children's academic and developmental outcomes. Family is the primary cell of society where the child's upbringing must begin from birth [1], and research consistently demonstrates that the quality of the home learning environment exerts significant influence on academic achievement [2,3].

The academic achievements of learners are associated with multiple components of their learning environment. Kapinga [4] claims that the provision of learning facilities enhances learners' academic performance, while Hill [5] revealed that the home environment significantly affects learning. These realities became particularly consequential during the COVID-19 pandemic, when lockdowns necessitated alternative delivery modalities, requiring children to learn at home using digital gadgets and self-learning materials — effectively transforming the home into a primary educational space.

Despite the recognized importance of the home learning environment, research exploring the combined influence of environmental dimensions and behavioral factors on academic performance in Philippine elementary school settings — particularly at the Grade II level — remains limited. This study addressed this gap by investigating: (1) the level of the home learning environment; (2) the extent of pupils' behavior; (3) the level of academic performance; (4) the relationship between home learning environment and academic performance; (5) the influence of home learning environment on academic performance; (6) the relationship between pupils' behavior and academic performance; and (7) the influence of pupils' behavior on academic performance.

The study was theoretically grounded in Vygotsky's Socio-cultural Theory [6], which posits that the social environment profoundly shapes cognitive development; Bronfenbrenner's Ecological Model of Human Development [7], which frames the home as a critical microsystem for child development; and Von Bertalanffy's Systems Theory Input-Output

Model [8], which treats the home environment as an input variable whose quality directly determines academic output.

5. MATERIALS AND METHODS

5.1 Research Design

A descriptive-correlational research design was employed. The descriptive component characterized the levels of the home learning environment, pupils' behavior, and academic performance. The correlational component examined relationships between home learning environment dimensions and academic performance, and between behavioral dimensions and academic performance. Multiple linear regression identified significant predictors of academic achievement.

5.2 Participants

The study was conducted in eleven public elementary schools in Kidapawan City District V: Amas Central Elementary School, Binoligan Elementary School, Puasinda Integrated School, Patadon Elementary School, Malinan Elementary School, Katipunan Elementary School, San Isidro Elementary School, Gayola Elementary School, San Roque Elementary School, Onica Elementary School, and Amazion Elementary School. Complete enumeration was employed, including all 100 elementary school teachers who served as respondents and proxy raters of their pupils' home environments and behaviors.

Table 1. Distribution of Respondents by School, Kidapawan City District V.

School	N
Amas Central Elementary School	17
Binoligan Elementary School	8
Puasinda Integrated School	10
Patadon Elementary School	16
Malinan Elementary School	7
Katipunan Elementary School	7
San Isidro Elementary School	7
Gayola Elementary School	7
San Roque Elementary School	7
Onica Elementary School	7
Amazion Elementary School	7
Total	100

5.3 Instruments

A researcher-formulated questionnaire with three parts was used. Part I assessed the home learning environment across six dimensions using a 5-point Likert scale (1 = Disagree to 5 = Strongly Agree). Part II assessed pupils' behavior across three dimensions using the same

scale. Part III gathered secondary data on pupils' MPS. The instrument was validated for content relevance and clarity prior to administration.

5.4 Statistical Analysis

Weighted means described the levels of all variables. Pearson Product Moment Correlation examined relationships between home learning environment dimensions and MPS, and between behavioral dimensions and MPS. Multiple linear regression identified the extent to which home learning environment dimensions and behavioral dimensions predicted academic performance. All analyses were conducted at the 0.05 significance level.

5.5 Ethical Considerations

Permission to conduct the study was secured from the Schools Division Superintendent, District Supervisor, and school heads. Respondents participated voluntarily with full confidentiality maintained throughout data collection and reporting.

6. RESULTS AND DISCUSSION

6.1 Home Learning Environment

Table 2 presents the home learning environment across six dimensions. Household support and discipline registered the highest mean (M = 4.28, Strongly Agree), reflecting strong parental modeling, consistent rule enforcement, and provision of privacy during assignments. Facilities and materials and learning space both rated 4.25 (Strongly Agree), reflecting adequate physical resources and conducive study areas. Family support (M = 4.14) and time management (M = 4.17) fell in the Agree range, while digital gadget usage registered the lowest mean (M = 3.85, Agree), indicating that while families use digital tools, optimization of educational technology remains a developmental area.

Table 2. Home Learning Environment Dimensions. (N = 100)

Home Learning Environment Dimension	Weighted Mean	Description
Family Support	4.14	Agree
Facilities and Materials	4.25	Strongly Agree
Learning Space	4.25	Strongly Agree
Digital Gadget Usage	3.85	Agree
Time Management	4.17	Agree
Household Support and Discipline	4.28	Strongly Agree

Digital gadget usage receiving the lowest rating despite its proven importance aligns with Chaudron et al. [9], who noted that while digital media are commonplace in modern families, access remains inequitable — a finding particularly salient for families in provincial Philippine settings. The high household support rating is consistent with Harris [10], who

affirmed that structured home environments and consistent discipline create the foundation for children's academic engagement.

6.2 Pupils' Behavior

Table 3 presents pupils' behavioral ratings across three dimensions. Self-help tasks recorded the highest mean ($M = 4.26$, Strongly Agree), with pupils independently dressing, preparing learning materials, and organizing personal belongings — reflecting a strong sense of self-reliance and routine management. Learning tasks ($M = 4.17$, Agree) showed that pupils generally demonstrate enthusiasm and task completion but still benefit from parental guidance for independent learning without assistance ($M = 4.00$). Peer interaction registered the lowest mean ($M = 4.05$, Agree), with conflict management and heated discussion avoidance scoring lowest at 3.85.

Table 3. Pupils' Behavior Dimensions. ($N = 100$)

Pupils' Behavior Dimension	Weighted Mean	Description
Learning Tasks	4.17	Agree
Interaction with Peers	4.05	Agree
Self-Help Tasks	4.26	Strongly Agree

6.3 Academic Performance

The pupils' academic performance, measured by MPS, was 85.84 — indicating a high level of proficiency and demonstrating mastery of key grade-level competencies. This strong performance reflects the supportive home environments, structured routines, consistent parental guidance, and access to learning resources documented in the study.

6.4 Relationship: Home Learning Environment and Academic Performance

Table 4 presents Pearson correlations between home learning environment dimensions and MPS. All six dimensions showed significant positive correlations at the 1% level ($p = 0.000$). Time management demonstrated the strongest correlation ($r = 0.594$), followed by digital gadget usage ($r = 0.571$), household support ($r = 0.560$), family support ($r = 0.528$), learning space ($r = 0.477$), and facilities and materials ($r = 0.460$). These findings reject the null hypothesis and confirm that a well-structured home learning environment comprehensively supports academic achievement.

Table 4. Pearson Correlation: HLE Dimensions and Academic Performance (MPS) | $p < 0.01$.**

HLE Dimension	Pearson r	Sig. (p)
Family Support	0.528**	0.000
Facilities and Materials	0.460**	0.000
Learning Space	0.477**	0.000
Digital Gadget Usage	0.571**	0.000
Time Management	0.594**	0.000
Household Support	0.560**	0.000

Time management's strongest correlation resonates with Apple and Ellis [11], who described time management as a deliberate, self-regulated effort to use time efficiently for goal achievement. The significant correlation of digital gadget usage is consistent with Chaudron et al. [9] and aligns with the growing body of evidence that purposeful technology integration enhances learning engagement and academic outcomes.

6.5 Influence: Home Learning Environment on Academic Performance

The regression model confirmed that the home learning environment as a composite significantly influences academic performance ($R^2 = 0.462$, $F = 7.474$, $p = 0.000$), accounting for 46.2% of the variance in MPS. Digital gadget usage emerged as the only statistically significant individual predictor ($\beta = 0.352$, $p = 0.029$). Family support ($\beta = 0.165$, $p = 0.379$), facilities and materials ($\beta = -0.106$, $p = 0.650$), and learning space ($\beta = -0.138$, $p = 0.561$) were not statistically significant individual predictors, though they contribute collectively to the model's explanatory power.

Table 5. Regression: HLE \rightarrow Academic Performance | $R^2 = 0.462$; $F = 7.474$; $p = 0.000$ | $*p < 0.05$

HLE Predictor	β	t	p
Family Support	0.165	0.887	0.379
Facilities and Materials	-0.106	-0.457	0.650
Learning Space	-0.138	-0.584	0.561
Digital Gadget Usage	0.352*	2.240	0.029
Time Management	0.283	1.422	0.161
Household Support	0.217	1.311	0.196

Digital gadget usage as the sole significant individual predictor underscores the transformative potential of purposeful technology use in extending learning opportunities at home. Ruhyana and Aeni [12] affirmed that educational facilities and infrastructure are key determinants of learning outcomes, though the statistical primacy of digital gadgets over

physical materials in this study signals the accelerating shift toward technology-mediated home learning.

6.6 Relationship: Pupils' Behavior and Academic Performance

Table 6 presents Pearson correlations between behavioral dimensions and MPS. All three dimensions were significantly positively correlated at the 1% level. Self-help tasks demonstrated the strongest correlation ($r = 0.873$, $p = 0.000$), followed by learning tasks ($r = 0.622$, $p = 0.000$) and interaction with peers ($r = 0.591$, $p = 0.000$). The exceptionally strong self-help correlation indicates that pupils' independence, organization, and personal responsibility are powerfully associated with academic achievement.

Table 6. Pearson Correlation: Pupils' Behavior and Academic Performance (MPS) | $p < 0.01$**

Pupils' Behavior Dimension	Pearson r	Sig. (p)
Learning Tasks	0.622**	0.000
Interaction with Peers	0.591**	0.000
Self-Help Tasks	0.873**	0.000

6.7 Influence: Pupils' Behavior on Academic Performance

The behavioral regression model was highly robust ($R^2 = 0.764$, $F = 59.217$, $p = 0.000$), explaining 76.4% of variance in MPS — making it a substantially stronger predictor than the environmental model. Self-help tasks was the dominant and only statistically significant individual behavioral predictor ($\beta = 0.863$, $p = 0.000$). Learning tasks ($\beta = -0.049$, $p = 0.715$) and peer interaction ($\beta = 0.069$, $p = 0.585$) were not individually significant in the regression model, suggesting that their influence on academic performance operates more indirectly through self-management behaviors.

Table 7. Regression: Pupils' Behavior → Academic Performance | $R^2 = 0.764$; $F = 59.217$; $p = 0.000$ | $p < 0.01$**

Behavioral Predictor	β	t	p
Learning Tasks	-0.049	-0.367	0.715
Interaction with Peers	0.069	0.550	0.585
Self-Help Tasks	0.863**	9.179	0.000

Self-help tasks' extraordinary predictive power ($\beta = 0.863$) demonstrates that Grade II pupils who develop independence in daily responsibilities — dressing, organizing learning materials, and managing personal belongings — are significantly more likely to achieve strong academic performance. Steedly et al. [13] emphasized that social development and

personal management skills positively predict school adjustment and academic success, supporting the interpretation that self-regulatory behaviors cultivated through household routines generalize into academic competencies.

7. CONCLUSION

The home learning environment of Grade II pupils in Kidapawan City District V is generally positive and supportive, with household support, facilities, and learning space as the strongest features. Digital gadget usage, while present, represents the most variable dimension, reflecting the digital divide persisting among Filipino families. Pupils exhibit positive behaviors across all domains, with self-help tasks as the most developed behavioral area. Academic performance is high (MPS = 85.84). All home learning environment dimensions and all behavioral dimensions are significantly and positively correlated with academic performance. The home learning environment significantly influences academic performance ($R^2 = 0.462$), with digital gadget usage as its single most predictive component. Pupils' behavior constitutes the more powerful predictor system ($R^2 = 0.764$), with self-help tasks identified as the strongest behavioral predictor of academic achievement. These findings collectively affirm that both the quality of the home environment and the behavioral dispositions cultivated within it are critical and complementary drivers of Grade II pupils' academic success.

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