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Effects of Classroom Environment on the Academic Performance of Primary Grade Pupils

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Abstract

This study aimed to determine the effects of the classroom environment on the academic performance of primary grade pupils in Quiterio San Jose Elementary School, Teresa Sub-Office. Using a descriptive research design, the study gathered data from 123 respondents to examine the relationship between classroom environment factors—class participation, motivation to learn, and task accomplishment—and pupils' academic performance. Demographic profiles of the respondents revealed that most teachers were female (94.3%), married (69.9%), aged 31–50 years, and held Master's degree units (52%). The majority were Teacher I (75.6%) with 1–10 years of service (56.1%) and had attended in-service trainings primarily at the division level (40.7%).Pupils perceived the classroom environment as highly conducive to learning, with class participation (WM = 4.75), motivation to learn (WM = 4.73), and task accomplishment (WM = 4.71) rated very skillful. Statistical analysis showed that age significantly affected perceptions on class participation and task accomplishment, while civil status influenced all three aspects. No significant differences were observed based on sex, educational attainment, length of service, position, or trainings attended. Academic performance was generally very satisfactory, with a mean grade of 85.35. Among the classroom environment factors, only motivation to learn showed a significant positive correlation with academic performance, whereas class participation and task accomplishment had no significant relationship.The study concluded that a well-structured and supportive classroom environment positively impacts pupils' motivation, which in turn contributes to improved academic performance. It also highlighted that pupils' perceptions are shaped by age and civil status, while teachers' profiles had minimal effect. The study recommended enhancing classroom comfort, safety, and resource accessibility, integrating diverse instructional materials, encouraging broader professional development for teachers, and conducting regular assessments of pupil motivation. Future research should explore qualitative insights and examine mediating factors such as learning styles, home environment, and teacher behaviors to further understand the relationship between classroom environment and academic performance.

Keywords: Classroom environment, Academic performance, Primary education, Motivation, Task accomplishment, Class participation

1. Introduction

Education is a fundamental institution that shapes the future of individuals and society. It is a systematic process of acquiring knowledge, skills, values, and attitudes that form the foundation for personal and social development. Beyond the mere transfer of information, education cultivates informed, responsible, and competent citizens capable of contributing to societal progress. It encompasses formal, non-formal, and informal learning, each playing a crucial role in fostering intellectual growth, moral development, and social responsibility. The primary objectives of education are to broaden knowledge, enhance critical thinking, and promote holistic growth, advancing both individual well-being and collective societal advancement. In the Philippines, the right to education is enshrined in Article XIV, Section 1 of the 1987 Constitution, which mandates the State to "protect and promote the right of all citizens to quality education at all levels and shall take appropriate steps to make such education accessible to all."

Access to quality education not only enables knowledge acquisition but also fosters personal growth, confidence, and the skills to make informed decisions. Schools, as the heart of the education system, are tasked with providing quality education and holistic development. This includes mastery of core subjects, communication, problem-solving, collaboration, and digital literacy. The Department of Education (DepEd) has reinforced this through DepEd Order No. 31, s.2022, emphasizing the integration of children's rights into the curriculum and school environment to create safe, nurturing, and rights-upholding learning spaces. A conducive classroom environment, both physical and psychological, significantly influences pupils' academic performance, cognitive growth, motivation, and well-being.

Several studies have established the role of classroom environment in academic outcomes. Owusu et al. (2021) found that supportive classroom management positively affected students' performance, though punishment and relationship-building strategies showed mixed results. Xiaolan (2024) highlighted the limited research on classroom environment and learning engagement, particularly in foreign language settings. Cooper and Fry (2020) emphasized the sociocultural impact of classroom interaction on engagement, albeit among college students. Local studies by Decena (2023) and Mato (2021) confirmed that classroom environment significantly affects motivation and academic performance, yet gaps remain regarding primary grade pupils. Ledesma (2020) and Plateros (2021) argued that environmental factors alone may not fully explain academic outcomes, pointing to the need for investigating motivational and instructional mediators (Santos, 2024; Agustin et al., 2025; Banzon et al., 2025).

Despite extensive research, most studies focus on higher education or secondary levels, while the influence of classroom environment on primary grade pupils in Philippine public schools remains underexplored. There is limited evidence on how physical, emotional, and instructional classroom factors collectively influence motivation, participation, and task accomplishment at this foundational stage. This study addresses this gap by examining the effects of classroom environment on the academic performance of primary grade pupils in Quiterio San Jose Elementary School, Teresa, Rizal, providing insights for educators, administrators, and policymakers to enhance early learning outcomes.

2. Materials and methods

2.1 Research Design

A descriptive survey research design was employed, utilizing a researcher-made questionnaire checklist to gather data and to determine the extent of the effects of the classroom environment on the academic performance of primary grade pupils, particularly in terms of motivation to learn, class participation, and task accomplishment. Documentary analysis was also applied, as the average grades of primary grade pupils during the third quarter were used as the basis for assessing their level of academic performance.

2.2 Research Setting

The study was conducted at in several public elementary schools in Teresa, Rizal during the school year 2024-2025. This schools include Abuyod Elementary School, Bagumbayan Elementary School, Pantay Elementary School, Prinza Elementary School, Quiterio San Jose Elementary School, and Teresa Elementary School.

2.3 Respondents

The study considered the total population primary grade teachers in the said schools. This consists of 123 teachers. They were described in terms of age, sex, civil status, educational attainment, length of service, position title and in-service trainings attended.

2.4 Research Instruments

The study employed a researcher-made questionnaire-checklist to collect data. The instrument consisted of two parts: Part I captured respondents' personal information, including age, sex, civil status, educational attainment, length of service, position title, and in-service trainings attended. Part II assessed the extent of classroom environment effects on primary grade pupils' academic performance across three aspects: motivation to learn, class participation, and task accomplishment, with 10 items per aspect (30 items total). A 5-point Likert scale was used, ranging from 1 (Never/Least Extent) to 5 (Always/Very High Extent).

Academic performance was determined through documentary analysis of pupils' third-quarter grades, interpreted using a standard scale: Outstanding (90+), Very Satisfactory (85–89), Satisfactory (80–84), Fairly Satisfactory (75–79), and Did Not Meet Expectations (below 75).

To ensure validity, the instrument was carefully crafted to avoid ambiguous terms. Content validation was conducted by professional lecturers, the thesis adviser, a statistician, a master teacher, a principal, and the dean of the graduate studies program. Feedback and recommendations were incorporated, and the finalized instrument was then administered to the study respondents.

2.5 Data Collection

A Gantt Chart of Activities will be followed in the conduct of the study. This includes the formulation of the research problem up to the revision of the manuscript and submission of the final copy. After the validation of the instrument, consent to conduct the study will be attain from the Office of the Schools Division Superintendent. The questionnaire-checklist will be administered to the respondents. The researcher will also follow the guidelines in the Data Privacy Act of 2012.

After the retrieval, the data were encoded and processed through the Statistical Package for Social Sciences (SPSS). After the analysis and interpretation of data, summary of findings, conclusions and recommendations were formulated. After the final oral defense, the manuscript was revised and incorporating all the comments and suggestions

of the oral examination committee. The manuscript was also subjected to Anti-plagiarism test at the statistical center. Hardbound copies of the manuscript were submitted after the final editing and revision to the office of graduate studies program and other offices concerned.

2.6 Data Analysis

The study employed various statistical tools to analyze and interpret the collected data. To describe the profile of respondents (age, sex, civil status, educational attainment, length of service, position title, and in-service trainings attended), frequency, percentage, and rank distribution were used. The extent of the effects of the classroom environment, as perceived by respondents, was measured using the weighted mean.To determine whether significant differences existed in the perceived effects of the classroom environment across respondents' profile variables, a One-Way Analysis of Variance (ANOVA) was conducted. The academic performance of primary grade pupils, reflected in their third-quarter average grades, was analyzed using frequency, percentage, mean, and standard deviation. Finally, to examine the relationship between the extent of classroom environment effects and pupils' academic performance, correlation analysis was employed.

2.7 Ethical Considerations

The study ensured the protection of the rights and welfare of all respondents. Participation was voluntary, and respondents were informed about the purpose of the study. Confidentiality and anonymity of all information provided were strictly maintained, and data were used solely for research purposes. The researcher ensured that the respondents were treated with respect and that no harm, whether physical, emotional, or psychological, would result from their participation in the study..

3. Results and Discussion

3.1. The Profile of the Respondents in Terms of Age, Sex, Civil Status, Educational Attainment, Length of Service, Position Title and In-Service Trainings Attended

Table 2 presents the demographic and professional characteristics of the 123 respondents in terms of age, sex, civil status, educational attainment, length of service, position title, and in-service trainings attended. The majority of teachers are aged 31–40 years (39.8%) and 41–50 years (38.2%), indicating a workforce dominated by early- to mid-career professionals. Female teachers comprise 94.3%, highlighting a predominantly female teaching staff. In terms of civil status, most respondents are married (69.9%), with single teachers at 26.8% and widowed teachers at 3.3%.

Regarding educational attainment, over half of the respondents hold graduate-level units (MA/MAEd) (52%), followed by those with a bachelor's degree (24.4%) and completed MA/MAEd (22%). Doctorate-level attainment is minimal (0.8% each for completed or in-progress Ph.D./Ed.D). The length of service indicates that most teachers have 1–10 years of experience (56.1%), with 33.3% serving 11–20 years, 6.5% below 1 year, and 4.1% with 21–25 years.

In terms of position title, Teacher I represents the majority (75.6%), followed by Teacher III (14.6%), Teacher II (8.9%), and Master Teacher I (0.8%). For in-service trainings attended, most have participated at the division level (40.7%), followed by district (26.8%), regional (14.6%), school-based (9.8%), and national trainings (8.1%).

These findings suggest that pupils' perceptions of the classroom environment are shaped primarily by female, early- to mid-career teachers with graduate-level academic preparation, lower rank positions, and mostly localized training exposure. While academically competent and relatively stable, this workforce may have limited leadership experience, higher-level specialization, or exposure to diverse pedagogical contexts.

Consistent with Owusu et al. (2021), the findings indicate that nurturing relationships and supportive reinforcement are key classroom management strategies, particularly among mid-career female teachers. Such approaches contribute positively to pupils' perceptions of a supportive and engaging classroom environment, which can influence motivation, participation, and task accomplishment.Level of Acceptability on the Developed Instructional Module in Teaching English as Perceived by Master Teachers with Respect to the Different Aspects

Table 1: *Level of Frequency and Percentage Distribution of the Respondentsin Terms of the Selected Variables*

Age	Frequency	Percent	Rank
61 years old and above	-	-	-
51 – 60 years old	3	2.4	4
41 – 50 years old	47	38.2	2
31 – 40 years old	49	39.8	1
21 – 30 years old	24	19.5	3
Total	123	100.0	
Sex			

Male	7	5.7	2
Female	116	94.3	1
Total	123	100.0	
Civil Status			
Single	33	26.8	2
Married	86	69.9	1
Widow/Widower	4	3.3	3
Total	123	100.0	
Educational Attainment			
Ph.D/Ed.D	1	.8	4.5
With units (EdD/PhD)	1	.8	4.5
MAT/MAEd	27	22.0	3
With MAT/MAEd units	64	52.0	1
Bachelor's Degree	30	24.4	2
Total	123	100.0	
Length of Service			
21 – 25 years	5	4.1	4
11 – 20 years	41	33.3	2
1 – 10 years	69	56.1	1
Below 1 year	8	6.5	3
Total	123	100.0	
Position Title			
Master Teacher I	1	0.8	4
Teacher III	18	14.6	2
Teacher II	11	8.9	3
Teacher I	93	75.6	1
Total	123	100.0	
In-Service Trainings Attended			
National	10	8.1	5
Regional	18	14.6	3
Division	50	40.7	1
District	33	26.8	2
School	12	9.8	4
Total	123	100.0	

3.2. Effects of Classroom Environment of Primary Grade Pupils as Perceived by the Respondents with Respect to Motivation to Learn, Class Participation, and Task Accomplishment

As depicted in the table, it obtained a composite weighted mean of 4.73 verbally interpreted as Always. Similarly, all the aspects discussed in this table are verbally interpreted as Always. First in rank is classroom participation with weighted mean of 4.75, followed by motivation to learn with 4.73 weighted mean and last in rank is task accomplishment with weighted mean of 4.71. The results implies that the classroom environment strongly supports pupils' learning by fostering participation, sustaining motivation, and aiding task accomplishment.

This again conforms to findings of Kilag (2024) that teachers should make a flexible, resourceful, and inclusive classroom environment that supports a variety of learning strategies tailored to students' needs..

Table 2: *Effects of Classroom Environment of Primary Grade Pupils as Perceived by the Respondents with Respect to Motivation to Learn, Class Participation, and Task Accomplishment*

Aspects	Overall $W\bar{X}$	Verbal Interpretation	Rank
Motivation to Learn	4.73	Always	2
Class Participation	4.75	Always	1
Task Accomplishment	4.71	Always	3
Composite $W\bar{X}$	**4.73**	**Always**	

3.3. Significant Difference on the Extent of Effects of Classroom Environment as Perceived by Themselves with Respect to the Different Aspects in Terms of Their Profile

Table 3 presents the results of the F-test examining the differential perceptions of primary pupils regarding the effects of the classroom environment on their academic performance, analyzed in relation to selected demographic and professional characteristics of teachers. The study investigated three key dimensions: Motivation to Learn, Class Participation, and Task Accomplishment.Correlation analysis revealed that Motivation to Learn was the only variable demonstrating a statistically significant relationship with academic performance ($r = -0.269$, $p = 0.003$). Although the correlation is weak, it indicates a meaningful association, suggesting that pupils' motivation is modestly influenced by classroom environmental factors. Conversely, Class Participation ($r = -0.146$, $p = 0.107$) and Task Accomplishment ($r = -0.142$, $p = 0.117$) exhibited very weak, non-significant correlations, implying that these aspects of classroom engagement are minimally affected by the perceived environment.The F-test further elucidated the role of teacher-related profile variables in shaping pupils' perceptions. Age significantly affected perceptions of class participation ($F = 4.149$, $p = 0.008$) and task accomplishment ($F = 4.889$, $p = 0.003$), but had no significant effect on motivation to learn ($F = 1.225$, $p = 0.304$). Civil status was significantly associated with all three dimensions: motivation to learn ($F = 6.814$, $p = 0.002$), class participation ($F = 4.908$, $p = 0.009$), and task accomplishment ($F = 3.534$, $p = 0.032$). In contrast, sex, educational attainment, length of service, position title, and in-service trainings attended did not yield statistically significant differences in pupils' perceptions across any of the measured dimensions.These findings suggest that pupils' perceptions of the classroom environment are shaped predominantly by teachers' age and civil status, rather than by other demographic or professional characteristics. Moreover, the results underscore that while the classroom environment has a demonstrable impact on pupils' motivation to learn, its influence on class participation and task accomplishment is less pronounced. The study highlights the need for a nuanced understanding of how teacher characteristics interact with environmental factors to affect pupil engagement and academic outcomes. These insights provide valuable implications for educational planning, professional development, and classroom management strategies aimed at optimizing learning experiences in primary education contexts.

Table 3: *Result of the F-test in the Significant Difference on the Extent of Effects of Classroom Environment of Primary Pupils as Perceived by Themselves With Respect to the Different Aspects in Terms of Their Profile*

Aspects/Variables	F-value	p-value	Ho	Verbal Interpretation
Age				
Motivation to Learn	1.225	.304	Accepted	Not Significant
Class Participation	4.149	.008	Rejected	Significant
Task Accomplishment	4.889	.003	Rejected	Significant
Sex				
Motivation to Learn	.011	.916	Accepted	Not Significant
Class Participation	.016	.899	Accepted	Not Significant
Task Accomplishment	.057	.812	Accepted	Not Significant
Civil Status				
Motivation to Learn	6.814	.002	Rejected	Significant
Class Participation	4.908	.009	Rejected	Significant
Task Accomplishment	3.534	.032	Rejected	Significant
Educational Attainment				
Motivation to Learn	1.397	.239	Accepted	Not Significant
Class Participation	.272	.895	Accepted	Not Significant
Task Accomplishment	.516	.724	Accepted	Not Significant
Length of Service				
Motivation to Learn	.545	.653	Accepted	Not Significant
Class Participation	.517	.671	Accepted	Not Significant
Task Accomplishment	1.109	.348	Accepted	Not Significant
Position Title				
Motivation to Learn	1.975	.121	Accepted	Not Significant
Class Participation	1.368	.256	Accepted	Not Significant
Task Accomplishment	1.656	.180	Accepted	Not Significant
In-Service Trainings Attended				
Motivation to Learn	.722	.579	Accepted	Not Significant
Class Participation	1.254	.292	Accepted	Not Significant
Task Accomplishment	.521	.721	Accepted	Not Significant

3.4. Level of Academic Performance of the Primary Pupils as Revealed in Their Average Grades

Table 4 presents the distribution of academic performance among primary pupils as reflected in their average grades during the third quarter. The data indicate that the majority of pupils (85.4%) attained grades within the 85–89 range, classified as "Very Satisfactory." A smaller proportion (13.8%) achieved grades between 80–84, corresponding to a "Satisfactory" performance level. Only a single pupil (0.8%) achieved an "Outstanding" grade of 90 or above. Notably, no pupils were recorded in the "Fairly Satisfactory" (75–79) or "Did Not Meet Expectations" (below 75) categories, indicating that all pupils met or exceeded the expected academic standards.The computed mean grade of the group is 85.35, which situates the average pupil within the Very Satisfactory performance bracket. The standard deviation of 1.324 reflects minimal variation in the grades, suggesting a relatively uniform level of academic achievement across the cohort. The range of grades spans from a minimum of 83 to a maximum of 96, further demonstrating that the pupils' performance is both high and concentrated within a narrow band.Overall, these findings indicate that primary pupils in the study exhibit consistent and commendable academic performance, with the majority achieving high levels of proficiency. This consistency underscores the effectiveness of the instructional environment and classroom management strategies employed, providing a supportive context for sustaining pupil motivation and learning outcomes.

Table 4: *Level of Academic Performance of the Primary Pupils as revealed by their Average Grades*

Rating		Frequency	Percentage
90 and above	Outstanding	1	.8
85-89	Very Satisfactory	105	85.4
80-84	Satisfactory	17	13.8
75-79	Fairly Satisfactory	-	-
Below 75	Did not meet expectation	-	-
Total		**123**	**100**
Mean			**85.35**
Std. Deviation			**1.324**

3.5. Significant Relationship between the Perceived Extent of Effects of Classroom Environment and the Pupils' Level of Academic Performance

The statistical analysis examined the extent to which the classroom environment affects three aspects of pupils' academic performance: Motivation to Learn, Class Participation, and Task Accomplishment. The results revealed that only Motivation to Learn showed a statistically significant relationship with the classroom environment, with an r-value of -0.269, indicating a weak negative correlation, and a p-value of 0.003, which is below the 0.05 threshold for significance. This suggests that, although the relationship is weak, changes in the classroom environment can still have a meaningful impact on pupils' motivation to learn. In contrast, Class Participation and Task Accomplishment both showed very weak negative correlations, with r-values of -0.146 and -0.142, respectively, and p-values of 0.107 and 0.117, both of which exceed the 0.05 significance level. This indicates that these relationships are not statistically significant. These results indicate that any observed relationships in these areas are not statistically significant and may be due to random variation rather than a true effect of the classroom environment. Overall, the findings suggest that among the three variables, motivation to learn is the most influenced by classroom environmental factors.

Table 5:*Significant Relationship between the Perceived Extent of Effects of Classroom Environment and the Pupils' Level of Academic Performance*

	r-values	p-value	Ho	VI
Motivation to Learn	-.269	.003	Rejected	Significant
Class Participation	-.146	.107	Accepted	Not Significant
Task Accomplishment	-.142	.117	Accepted	Not Significant

4. Conclusion & Recommendations

The study concludes that primary pupils generally perceive the classroom environment as positively influencing their motivation, class participation, and task accomplishment, with motivation to learn being the only aspect significantly correlated with academic performance. Pupils' perceptions were notably affected by age and civil status, while teachers' demographic and professional profiles did not significantly impact these perceptions. These findings highlight that a well-structured, supportive, and engaging classroom environment is essential for enhancing pupil motivation, which in turn directly contributes to improved academic outcomes.

In light of the findings, it is recommended that schools strengthen environmental factors—such as comfort, safety, and access to instructional resources—and incorporate varied learning materials that promote engagement and active participation. Teachers should be encouraged to attend in-service trainings at regional and national levels to enhance pedagogical strategies and optimize classroom impact. Additionally, regular assessments of pupil motivation should be conducted alongside targeted interventions to sustain learning drive. Future research should explore underlying factors affecting motivation, including qualitative investigations through interviews or focus groups, and examine potential mediating influences such as learning styles, home environment, and teacher practices.

Compliance with ethical standards

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