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Effects of Diverse Classroom Seating Arrangement on the Behavior and Academic Performance of Grade Four Pupils

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Abstract

This study examined the effects of diverse classroom seating arrangements on the behavior and academic performance of Grade Four pupils in selected public elementary schools in Taytay District during School Year 2025–2026. Employing a descriptive-correlational research design supported by documentary analysis, the study involved 25 Grade Four teachers and 386 pupil-respondents from nine public elementary schools. A researcher-made questionnaire-checklist was used to assess the effects of diverse seating arrangements in terms of engagement and motivation, concentration and focus, comfort and well-being, and learning style and differentiation. Pupils' average grades served as the basis for determining academic performance, while the problems encountered in implementing diverse seating arrangements were also examined.The findings revealed that diverse classroom seating arrangements had a moderate effect on pupils' behavior across all four dimensions. A significant difference existed between teachers' and pupils' perceptions regarding engagement and motivation, whereas no significant differences were found in concentration and focus, comfort and well-being, and learning style and differentiation. Respondents' personal and demographic characteristics did not significantly influence their perceptions of the effects of diverse seating arrangements. Furthermore, Grade Four pupils demonstrated Very Satisfactory academic performance. However, no significant relationship was established between diverse classroom seating arrangements and academic performance. Teachers and pupils also reported experiencing moderate implementation-related problems.The study concluded that diverse classroom seating arrangements provide behavioral and affective support to pupils but do not necessarily translate into improved academic performance. It is recommended that school administrators sustain flexible seating practices while strengthening classroom management strategies, promoting pupil participation in seating decisions, and addressing implementation challenges. The proposed action plan may serve as a guide for improving classroom seating practices and creating a more responsive learning environment.

Keywords: Diverse Classroom Seating Arrangements, Pupil Behavior, Academic Performance, Classroom Management, Grade Four Pupils, Flexible Learning Environment

1. Introduction

The classroom environment plays an essential role in shaping pupils' learning experiences, behavioral development, and academic outcomes. Beyond instructional materials, teaching strategies, and teacher competencies, the physical organization of the classroom influences how learners interact, participate, concentrate, and engage in learning activities. Among the important elements of classroom organization is seating arrangement, which determines the spatial relationships among pupils, teachers, and learning resources.

Traditional classroom arrangements commonly emphasize fixed rows and columns, whereas contemporary approaches encourage varied seating configurations that accommodate collaborative learning, individual tasks, peer interaction, and differentiated instruction. As elementary pupils have different learning preferences, behavioral characteristics, and developmental needs, providing diverse classroom seating arrangements may contribute to establishing a more responsive and inclusive learning environment.

Classroom seating arrangements are not merely organizational decisions but also potential instructional and classroom management strategies. The positioning of pupils can influence their opportunities for interaction, accessibility to the teacher, visibility of instructional materials, and participation in classroom activities. Flexible seating, in particular, provides opportunities for learners to experience different physical arrangements depending on the nature of the learning task and their individual needs. However, the effectiveness of these arrangements depends on how teachers manage classroom routines, establish behavioral expectations, and match seating configurations with instructional objectives. Consequently, examining diverse classroom seating arrangements requires consideration of both their potential benefits and the practical challenges associated with their implementation.

Recent studies have provided empirical evidence regarding the relationship between classroom seating arrangements and pupils' behavioral and learning experiences. Halidane et al. (2024) examined the impact of flexible seating on teacher–student interactions, stress adaptation, and mental health among elementary pupils in Quebec. Their findings indicated that flexible seating was associated with differences in selected indicators of students' mental health, although the effects varied according to sex. The researchers emphasized that flexible seating may not be equally suitable for all learners and that teacher support remains important in helping pupils adjust to changes in classroom arrangements. This suggests that seating flexibility should be implemented with consideration of pupils' comfort, individual differences, and social interactions rather than being treated as a universally effective classroom intervention.Similarly, Camacho (2024), in examining rows, group seating, and semicircular arrangements among elementary pupils, found that semicircular seating improved students' focus and behavior, while group seating presented certain difficulties. The findings further indicated that students' academic work did not substantially change across the arrangements. These results suggest that classroom seating configurations may have more immediate implications for behavioral engagement and attention than for measurable academic outcomes. They also demonstrate the importance of identifying seating arrangements that correspond to specific classroom activities and learner characteristics.Furthermore, Hunley et al. (2023) investigated alternative seating and task behavior among second-grade pupils. Their findings showed improvements in task initiation when pupils were allowed to select alternative seating options. The study highlighted the potential contribution of seating choices to classroom participation and task engagement, particularly among learners who experience difficulties with school functioning. These findings reinforce the importance of considering pupils' active participation in classroom organization and the suitability of different seating options for supporting learning behaviors.

More recent research has also explored the relationship between seating arrangements and disruptive classroom behavior. Diansay et al. (2025) investigated different seating configurations as a classroom management intervention among Grade Two learners in the Philippines. The study examined U-shaped, V-shaped, semicircular, clustered, and paired seating arrangements and reported a reduction in observed disruptive behaviors following the intervention. Although the statistical test did not establish a significant difference, the reported effect size suggested a potentially meaningful practical improvement. This finding highlights the value of exploring seating configurations as a classroom-based strategy for promoting appropriate behavior, maintaining classroom order, and improving pupils' opportunities to participate in learning activities.

In the Philippine educational context, Gaytos (2024) examined the relationship between seating arrangements and the academic performance of Bachelor of Elementary Education students. The findings indicated that students generally perceived their seating arrangements positively, particularly in relation to psychological comfort and academic engagement. The study also emphasized the importance of learner-centered seating practices and providing students with opportunities to participate in seating decisions. Although the respondents were college students, the findings provide relevant insights into how seating arrangements may influence learners' perceptions of their educational environment. Nevertheless, the applicability of these findings to elementary pupils requires further investigation because younger learners have different developmental, behavioral, and instructional needs.

Despite the growing interest in flexible and alternative classroom environments, several research gaps remain. First, existing studies have frequently focused on particular seating configurations, such as rows, groups, semicircles, or alternative seating options, rather than examining diverse seating arrangements across multiple behavioral dimensions. Second, some investigations have concentrated on teachers' observations or pupils' perceptions without sufficiently examining whether their assessments differ. Third, the relationship between seating arrangements and academic performance requires further empirical examination, particularly among elementary pupils, since improvements in classroom engagement and behavior do not automatically establish

improvements in academic achievement. Fourth, there remains a need for research that considers the possible influence of teachers' and pupils' demographic characteristics on their perceptions of seating arrangements. Finally, implementation-related concerns, including classroom movement, noise, pupil cooperation, and classroom management, deserve attention because these practical conditions may influence the sustainability of flexible seating practices.

Addressing these gaps, the present study examined the effects of diverse classroom seating arrangements on the behavior and academic performance of Grade Four pupils in selected public elementary schools in Taytay District during School Year 2025–2026. Specifically, it investigated the perceived effects of diverse seating arrangements in terms of engagement and motivation, concentration and focus, comfort and well-being, and learning style and differentiation. It also examined differences in the perceptions of teacher-respondents and pupil-respondents, considered their demographic characteristics, determined pupils' academic performance based on their average grades, and assessed the problems encountered in implementing diverse seating arrangements. By examining these dimensions collectively, the study sought to provide a more comprehensive understanding of the behavioral and academic implications of classroom seating practices in elementary education.

The study is significant because it provides empirical evidence that may guide school administrators and teachers in making informed decisions about classroom organization. Rather than assuming that flexible or varied seating arrangements automatically improve academic achievement, the investigation recognizes their possible contributions to behavioral and affective aspects of learning while acknowledging the practical limitations of implementation. Its findings may serve as a basis for developing appropriate classroom management strategies, improving learner participation, and designing seating arrangements responsive to pupils' diverse needs. Ultimately, the study contributes to the continuing discourse on learner-centered classroom environments by examining whether diverse seating arrangements function primarily as behavioral and instructional supports or also demonstrate a measurable association with pupils' academic performance.

2. Material and methods

2.1 Research Design

The study employed a descriptive-correlational research design supported by documentary analysis to determine the effects of diverse classroom seating arrangements on the behavior and academic performance of Grade Four pupils. This design was appropriate for describing the perceived effects of seating arrangements, examining differences in respondents' perceptions, and determining the relationship between classroom seating arrangements and pupils' academic performance without manipulating the study variables.

2.2 Locale of the Study

The study was conducted in nine selected public elementary schools in Taytay District, Rizal, namely Bagong Pag-asa Elementary School, Cresdaville Elementary School, Dolores Elementary School, Kapalaran Elementary School, Muzon Elementary School, Rosario Ocampo Elementary School, San Francisco Elementary School, San Juan Elementary School, and San Lorenzo Elementary School. These schools served as the research locale for examining the implementation and perceived effects of diverse classroom seating arrangements among Grade Four pupils.

2.3 Respondents of the Study

The respondents consisted of 25 Grade Four teachers and 386 Grade Four pupils from the nine selected public elementary schools in Taytay District. The teacher-respondents provided assessments of the effects of diverse classroom seating arrangements, while the pupil-respondents contributed their perceptions and information relevant to the investigation of classroom behavior and academic performance.

2.4 Sample and Sampling Procedure

The study utilized the total population of 25 Grade Four teachers and selected 386 Grade Four pupils using Slovin's formula to determine the required sample size. Simple random sampling was employed in selecting the pupil-respondents to provide each eligible pupil with an equal opportunity for inclusion in the study.

2.5 Research Instrument

The study utilized a researcher-made questionnaire-checklist to gather data on the perceived effects of diverse classroom seating arrangements in terms of engagement and motivation, concentration and focus, comfort and well-being, and learning style and differentiation, as well as the problems encountered in their implementation. Documentary analysis was likewise employed to obtain pupils' average grades in all subjects as the basis for determining their academic performance.

2.6 Data Gathering Procedure
The researcher secured permission from the appropriate educational authorities and school administrators before administering the validated questionnaire to the teacher- and pupil-respondents. After obtaining the necessary parental consent and pupil assent, the questionnaires were distributed, retrieved, and checked for completeness, while pupils' academic records were accessed with proper authorization to obtain their average grades for analysis.

2.7 Data Analysis Techniques
The gathered data were organized, tabulated, and analyzed using frequency, percentage, weighted mean, and appropriate inferential statistical tests to determine respondents' profiles, perceived effects, differences in perceptions, and problems encountered in implementing diverse classroom seating arrangements, while correlation analysis was used to establish the relationship between seating arrangements and pupils' academic performance.

2.8 Ethical Considerations
The study observed research ethics by securing informed consent, ensuring voluntary participation, maintaining respondents' anonymity and confidentiality, protecting collected information, and using the gathered data exclusively for academic and research purposes.

3. Results and Discussion

3.1 Profile of the Two Groups of Respondents in Terms of the Selected Variables
The study involved 25 teacher-respondents and 386 pupil-respondents. Most teachers were 41–50 years old (52%), male (60%), married (88%), and had pursued master's units (40%), with 10–14 years of teaching experience (36%) and Teacher I positions (68%). Meanwhile, most pupils were male (59.6%), third-born children (31.9%), and belonged to families with two children (50.5%) and monthly incomes of ₱10,000–₱19,999 (35.5%). Most of their fathers and mothers were high school graduates (63.5% and 67.4%, respectively), while the majority of fathers worked in private companies (50.5%) and mothers were government employees (40.2%

3.2 Extent of Effects of Diverse Classroom Seating Arrangement on the Behavior of Grade Four Pupils as Perceived by the Two Groups of Respondents with Respect to the Different Aspects
Both teacher-respondents and pupil-respondents perceived diverse classroom seating arrangements to have an overall moderate effect on Grade Four pupils' behavior, with composite weighted means of 3.16 and 3.45, respectively. Both groups rated Learning Style and Differentiation highest, with weighted means of 3.57 and 3.66, interpreted as Often (High Effect), indicating that varied seating arrangements support different learning preferences and instructional approaches. Meanwhile, Engagement and Motivation, Concentration and Focus, and Comfort and Well-being were generally rated as having moderate effects, suggesting that seating changes do not consistently improve all behavioral aspects. These findings are supported by Camacho (2024), who reported that the effects of seating configurations on student performance vary according to classroom arrangement, and Hunley et al. (2023), who found that alternative seating may support pupils' task behavior and school functioning. Similarly, Halidane et al. (2024) highlighted the relevance of flexible seating to teacher–student interactions and pupils' stress adaptation and mental health. Hoekstra et al. (2023) also emphasized that teachers select seating arrangements based on instructional and social-emotional objectives. Collectively, these studies reinforce the finding that diverse seating arrangements serve as a supportive classroom strategy, particularly for differentiated instruction, but their effectiveness depends on purposeful implementation, appropriate classroom management, and responsiveness to pupils' needs.

3.3 Significant Difference Between the Perception of the Two Groups of Respondents on the Extent of Effects of Diverse Classroom Seating Arrangement on the Behavior of Grade Four Pupils With Respect to the Different Aspects
The findings revealed a significant difference between teachers' and pupils' perceptions of the effects of diverse classroom seating arrangements on engagement and motivation ($t = 4.332$, $p = .000$). However, no significant differences were found in their perceptions of concentration and focus ($p = .189$), comfort and well-being ($p = .144$), and learning style and differentiation ($p = .143$). This indicates that both groups generally share similar views on the effects of seating arrangements, except in terms of engagement and motivation, where their perceptions differ. The result highlights the importance of considering pupils' feedback and experiences when planning classroom seating arrangements to ensure that these strategies effectively promote participation, interest, and motivation. This is supported by Romero (2023), who found differences in perceptions regarding the use of U-shaped seating for collaborative activities and its influence on classroom recitation.

3.4 Significant Difference on the Perception of the Two Groups of Respondents on the Extent of Effects of Diverse Classroom Seating Arrangement on the Behavior of Grade Four Pupils with Respect to the Different Aspects in Terms of Their Profile

The findings revealed that there were no significant differences in the perceptions of teacher-respondents regarding the effects of diverse classroom seating arrangements on pupils' behavior when grouped according to age, sex, civil status, educational attainment, length of service, position title, and in-service trainings attended, as all computed p-values exceeded the 0.05 significance level. Similarly, pupil-respondents showed no significant differences in their perceptions when grouped according to sex, sibling position, number of children in the family, monthly family income, parents' educational attainment, and parents' occupation. These results indicate that teachers and pupils generally share consistent perceptions of the effects of diverse classroom seating arrangements regardless of their personal, professional, and family backgrounds. The findings are supported by Gutierrez (2022), who reported that teachers' demographic and professional characteristics did not significantly influence their views on classroom arrangements, and Manalo and Reyes (2022), who found that pupils' personal and family backgrounds did not significantly affect their perceptions of flexible seating

3.5 Level of Academic Performance of the Grade Four Pupils as Revealed by Their Average Grades

The findings revealed that the Grade Four pupils generally demonstrated Very Satisfactory academic performance, obtaining an overall mean of 86.03 and a standard deviation of 3.759. Of the 386 pupils, 38.3% achieved Very Satisfactory performance, 38.0% obtained Satisfactory ratings, and 23.5% attained Outstanding performance. No pupils fell under the Fairly Satisfactory or Did Not Meet Expectations categories, with grades ranging from 80 to 92. These results indicate that the pupils generally met the expected academic standards, although those with Satisfactory ratings may still benefit from additional learning support and enrichment activities. The findings suggest that differentiated instruction and appropriate classroom strategies should be sustained to address varying learning needs and further improve academic achievement

3.6 Significant Relationship Between the Extent of Effects of Diverse Classroom Seating Arrangement on the Behavior of Grade Four Pupils and Their Level of Academic Performance

The findings revealed that there was no significant relationship between the perceived effects of diverse classroom seating arrangements on pupils' behavior and their level of academic performance across all four aspects: engagement and motivation ($r = .061$, $p = .233$), concentration and focus ($r = .011$, $p = .830$), comfort and well-being ($r = .059$, $p = .246$), and learning style and differentiation ($r = .012$, $p = .821$). Since all computed p-values exceeded the 0.05 level of significance, the null hypothesis was not rejected. These results indicate that the perceived behavioral benefits of diverse seating arrangements did not significantly correspond to variations in pupils' academic performance. Although flexible seating may support engagement, comfort, and differentiated learning experiences, these perceived effects do not necessarily translate into higher academic grades. Thus, diverse classroom seating arrangements may be regarded primarily as a strategy for supporting pupils' behavioral and learning experiences rather than as a direct means of improving academic achievement. Other factors, such as instructional quality, study habits, prior knowledge, and home learning environment, may also contribute to pupils' academic performance.

3.7 Extent of the Problems Encountered by the Two Groups of Respondents in Implementing Diverse Classroom Seating Arrangement

The findings revealed that both teacher-respondents and pupil-respondents sometimes encountered problems in implementing diverse classroom seating arrangements, with overall weighted means of 3.13 and 3.02, respectively. For teachers, the most frequently encountered concern was frequent classroom movement affecting pupils' concentration ($\bar{W}x = 3.64$), interpreted as Often Encountered. For pupils, the leading concerns were over-dependence on groupmates when completing tasks and frequent classroom movement, both obtaining weighted means of 3.42 and interpreted as Sometimes Encountered. Both groups also identified noise management as a recurring challenge, while other concerns included distractions, limited visibility of instructional materials, discomfort with certain seating positions, and difficulties during group discussions. These findings indicate that although the challenges were generally moderate, classroom movement, noise, and unequal participation require attention to ensure that flexible seating arrangements remain conducive to learning. Teachers may address these concerns by establishing clear movement routines, setting expectations for collaborative tasks, promoting individual accountability, and arranging seats to provide adequate visibility and opportunities for participation. The findings are consistent with Camacho (2024), whose study reported that group seating could increase distractions and off-task behavior, while also identifying noise management and student movement during transitions as implementation challenges. This reinforces the need for effective classroom management to maximize the benefits of diverse seating arrangements while minimizing potential disruptions.

4. Conclusion & Recommendations

The study concluded that diverse classroom seating arrangements had a moderate effect on the behavior of Grade Four pupils, particularly in supporting learning style and differentiation. Although teachers and pupils generally recognized their benefits, their perceptions differed significantly only in terms of engagement and motivation. The findings further revealed that respondents' personal, professional, and family profiles generally did not significantly influence their perceptions, while pupils demonstrated Very Satisfactory academic performance, with an overall mean of 86.03. However, no significant relationship was established between the perceived behavioral effects of diverse seating arrangements and pupils' academic performance. Both groups also reported moderate implementation problems, particularly concerning classroom movement, noise management, and pupils' dependence on groupmates. These results suggest that diverse seating arrangements can support pupils' classroom experiences and behavioral development but should not be considered a direct determinant of academic achievement.

In view of these findings, teachers are encouraged to continue implementing varied seating arrangements based on lesson objectives, pupils' learning needs, and classroom conditions. They should establish clear routines for movement, strengthen noise and behavior management, promote individual accountability during group activities, and ensure that all pupils have comfortable seats and clear visibility of instructional materials. Teachers should also regularly seek pupils' feedback, particularly regarding engagement and motivation, to improve seating arrangements and encourage active participation. School administrators may support these efforts through professional development and the provision of appropriate classroom resources. Furthermore, the proposed action plan should be implemented and monitored to address the identified challenges and strengthen classroom management practices. Future researchers may conduct similar studies involving other grade levels, schools, and additional factors affecting academic performance to gain a broader understanding of the role of diverse classroom seating arrangements in the teaching-learning process.

5. Compliance with ethical standards

The authors affirm that no conflicts of interest exist in relation to this study. The research was conducted in accordance with accepted ethical principles for human-participant research, including obtaining informed consent, ensuring voluntary participation, allowing participants to withdraw at any stage without consequence, and protecting participant confidentiality through anonymous, secure, and aggregated data management. Because the study examined psychological well-being, all research procedures were non-invasive and implemented with appropriate measures to reduce the risk of discomfort. Participants were informed of available support services should the need arise. Furthermore, the necessary institutional approvals were obtained for the administration of the research instruments and access to relevant academic records.

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