

Effects of Minimally Decorated and Visually Stimulating Classroom Settings on the Social Behavior of Grade 1 Learners: A Hidden Curriculum Perspective

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Abstract

This study examined the effects of visually stimulating and minimally decorated classroom environments on the observable social behavior of Grade 1 learners, viewing classroom design as a component of the hidden curriculum. Anchored in Bronfenbrenner's Ecological Systems Theory, Hidden Curriculum Theory, and principles of environmental psychology, the study investigated how classroom environments influence cooperation, peer interaction, sharing and turn-taking, classroom participation, and adherence to classroom routines and rules. A quasi-experimental within-subject crossover design was employed involving ten Grade 1 learners from Musuan Integrated School, Maramag, Bukidnon. Participants were exposed to both classroom conditions, and their behaviors were assessed using a Structured Classroom Observation Checklist adapted from established classroom observation frameworks. Data were analyzed using weighted mean, standard deviation, and the Wilcoxon Signed-Rank Test. The findings revealed that learners demonstrated more positive social behaviors in the visually stimulating classroom environment than in the minimally decorated classroom. Higher levels of cooperation, peer interaction, sharing and turn-taking, classroom participation, and adherence to classroom routines and rules were consistently observed in the visually stimulating setting. Statistical analysis further confirmed a significant difference between the two classroom conditions, indicating that classroom environment influenced learners' observable social behavior. The study concluded that visually stimulating classroom environments promote social engagement, positive interaction, active participation, and behavioral regulation among Grade 1 learners. It recommends the use of meaningful and organized visual classroom elements and encourages further studies involving larger samples and diverse educational contexts. This study supports SDG 4 (Quality Education) by contributing evidence on the role of learning environments in enhancing learner development and educational experiences. It also relates to SDG 3 (Good Health and Well-Being) and SDG 11 (Sustainable Cities and Communities) by promoting supportive educational spaces that foster positive social behavior and well-being. The findings contribute to educational, institutional, and community sustainability by informing classroom design practices that support holistic learner development and positive social outcomes.

Keywords: Classroom Environment, Grade 1 Learners, Hidden Curriculum, Observable Social Behavior, Quasi-Experimental Design, Social Development, Visually Stimulating Classroom

1. Introduction

The classroom environment plays a critical role in early childhood development by influencing learners' academic, social, and behavioral growth. Beyond formal instruction, learners acquire values, norms, and behavioral expectations through the hidden curriculum embedded in classroom routines, interactions, and environmental conditions. As Grade 1 learners transition from kindergarten to formal schooling, they become particularly responsive to environmental cues that may shape their observable social behaviors. This study examines how visually stimulating and minimally decorated classroom environments, as dimensions of the hidden curriculum, influence the social behavior of Grade 1 learners.

1.1 Hidden Curriculum and Classroom Environment in Grade 1 Learners

Early childhood is a period of rapid brain development during which children acquire foundational skills that influence future learning and adjustment. Classrooms function not only as academic settings but also as social environments where learners develop self-regulation, cooperation, participation, and appropriate behavior. The concept of hidden curriculum refers to the implicit values, assumptions, and behavioral expectations transmitted through everyday schooling experiences. Jackson (1968) emphasized that discipline, social conformity, participation, and socialization are learned beyond formal instruction, while Margolis (2001) and Woodhead (2013) highlighted the role of social interactions, institutions, and environments in transmitting hidden curriculum. Among Grade 1 learners, classroom environments may communicate implicit messages that influence behavior. Visually stimulating classrooms may encourage engagement, curiosity, and

interaction, whereas minimally decorated classrooms may reduce distraction and sensory overload. These environmental conditions may shape observable social behaviors through the hidden curriculum embedded within the learning space.

1.2 Themes and Insights from Related Literature on Classroom Design and Social Behavior

Existing literature consistently identifies the hidden curriculum as a significant influence on learner behavior. International studies describe hidden curriculum as the transmission of unspoken norms, values, and behavioral expectations through school climate, teacher behavior, and classroom organization (EBSCO, 2014; Simply Psychology, 2024; GCU Blog, 2022). Research further indicates that classroom routines, emotional climate, and group activities contribute to cooperation, discipline, empathy, and social responsibility among learners (Miller and Anderson, 2021; Lee et al., 2022; Gomez and Richards, 2023; Nakamura, 2024). Environmental psychology literature supports the importance of physical learning spaces in shaping learner behavior. Barrett et al. (2015) demonstrated that color, lighting, spatial arrangement, and visual stimulation affect learners' attention, engagement, and well-being. Similarly, WTCS Pressbooks (2025) reported that organized and child-centered environments encourage exploration, cooperation, and participation. Research on Montessori and structured learning environments also suggests that environmental order and aesthetics foster independence, discipline, and social responsibility (Starshine Montessori, 2023; Curriculum Studies, 2021). Recent studies recognize classroom design as a factor affecting learner engagement and behavior. Cui (2024) found that classroom decoration and visual elements influence attention and cognitive focus, while Humphrey (2005) explained that learning environments communicate implicit norms and expectations that shape behavior.

1.3 Local, National, and Global Context of Classroom Environment and Learner Behavior

Globally, studies have primarily focused on teacher influence, school culture, and instructional practices as components of the hidden curriculum, with less attention given to physical classroom environments as independent behavioral influences. Although environmental psychology acknowledges the importance of physical space, direct comparisons between visually stimulating and minimally decorated classrooms remain limited. Within the Philippine context, hidden curriculum studies similarly emphasize social experiences, institutional practices, and school culture. Edupij (2023) reported that school experiences transmit behavioral lessons that shape learners' values and conduct, while Porlares and Tan (2021) highlighted the influence of social, cultural, and environmental factors on learner behavior. A limited number of local studies have linked physical classroom conditions to social behavior. Dela Cruz, Santos, and Reyes (2021) found that organized and stimulating classrooms promote cooperation and engagement, whereas cluttered environments may contribute to disruptive behavior. Likewise, De Guzman and Reyes (2021) reported that classroom arrangements, visibility, and color schemes influence peer interaction and emotional comfort. Additional studies emphasized the role of school routines and teacher modeling in developing cooperation, discipline, empathy, and prosocial behavior (Gunio and Fajardo, 2018; Santos and Dela Cruz, 2022; Ramos et al., 2023; Villanueva and Bautista, 2024).

1.4 Theoretical and Conceptual Basis of Classroom Environment as Hidden Curriculum

This study is anchored in Bronfenbrenner's Ecological Systems Theory, which posits that children's development and behavior are influenced by the environments they regularly experience. The classroom environment therefore serves as a significant context that may affect learners' interactions and behavioral responses. The study is further grounded in Hidden Curriculum Theory, which suggests that classroom environments communicate implicit expectations and behavioral messages beyond formal instruction. Through environmental design, organization, and visual stimulation, classrooms may influence learners' social behavior without direct teaching. Environmental psychology provides additional support by explaining that physical features such as visual complexity, spatial arrangement, and environmental organization influence attention, comfort, engagement, and social behavior (Barrett et al., 2015). Together, these perspectives suggest that classroom design functions as a behavioral influence capable of shaping cooperation, peer interaction, participation, sharing, and adherence to routines.

1.5 Research Gaps and Rationale for Examining Contrasting Classroom Environments

Despite increasing recognition of the hidden curriculum, existing research has focused predominantly on teacher-child interactions, school culture, instructional practices, and classroom routines. The physical classroom environment remains comparatively underexplored as an independent factor influencing learner behavior. Although studies have shown that classroom conditions affect engagement and behavior, few investigations directly compare visually stimulating and minimally decorated classroom environments. Furthermore, much of the existing literature emphasizes academic performance and cognitive outcomes rather than observable social behavior among young learners. Limited quasi-experimental research has isolated environmental visual stimulation as the primary variable influencing behavior, particularly among Grade 1 learners. This study addresses these gaps by examining how contrasting classroom environments function as hidden curriculum and influence observable social behavior. Through a quasi-experimental approach involving the same group of learners across two classroom conditions, the study investigates differences in cooperation, peer interaction, sharing, classroom participation, and adherence to routines.

1.6 Alignment with Relevant Sustainable Development Goals (SDGs)

This study aligns primarily with SDG 4 – Quality Education by contributing evidence on how learning environments influence learner development and educational experiences. Understanding how classroom design affects social behavior may support the creation of inclusive, effective, and learner-centered educational spaces. The study also relates to SDG 3 – Good Health and Well-Being, as classroom environments influence emotional comfort, engagement, self-regulation, and positive social interactions that contribute to learners’ overall well-being. Additionally, the study supports SDG 11 – Sustainable Cities and Communities by providing insights into the design of educational environments that promote positive social development and supportive learning communities.

1.7 Importance of the Study to Multidisciplinary Sustainability

The study contributes to educational sustainability by informing evidence-based classroom design practices that support holistic learner development. It enhances understanding of how environmental conditions influence social behavior, enabling educators and school leaders to create learning spaces that foster cooperation, participation, and positive interactions. The study also contributes to community sustainability by supporting the development of socially competent learners capable of engaging positively with peers and school communities. By promoting behavioral and social growth during early childhood, the findings may help strengthen long-term educational and social outcomes. Furthermore, the research contributes to institutional sustainability by providing schools with empirical evidence that can guide classroom planning, resource allocation, and learning-environment improvement initiatives. The findings may also support future research in environmental psychology, classroom ecology, and hidden curriculum studies.

2. Material and methods

2.1 Research Design

This study employed a quasi-experimental within-subject crossover design to determine the effects of visually stimulating and minimally decorated classroom environments on the observable social behavior of Grade 1 learners. The same ten (10) learners were exposed to both classroom conditions, allowing each participant to serve as his or her own control. Observable social behaviors, including cooperation, peer interaction, sharing and turn-taking, classroom participation, and adherence to classroom routines and rules, were assessed using a structured observation checklist.

2.2 Locale of the Study

The study was conducted at Musuan Integrated School in Maramag, Bukidnon. Grade 1 learners were selected because they are in a transitional stage from kindergarten to formal schooling and remain highly responsive to classroom environmental influences.

2.3 Respondents of the Study

The respondents were ten (10) Grade 1 learners aged six to seven years old from Musuan Integrated School. Participants were selected based on regular enrollment, consistent attendance, and secured parental or guardian consent to ensure complete participation throughout the study.

2.4 Sample and Sampling Procedure

Purposive sampling was used to select the participants because they met the requirements of the study (Creswell, 2014). The research was conducted in three phases. First, learners were observed in a minimally decorated classroom for three consecutive days, with one-hour sessions each day. Second, a three-day washout period was implemented to minimize carryover effects. Third, the same learners participated in the same activities in a visually stimulating classroom for another three consecutive days. Identical observation procedures and instruments were used in both conditions.

2.5 Research Instrument

The primary instrument was a Structured Classroom Observation Checklist adapted from established classroom observation frameworks. It was guided by the Classroom Assessment Scoring System (CLASS) of Pianta, La Paro, and Hamre (2008) and the Early Childhood Environment Rating Scale (ECERS-R) of Harms, Clifford, and Cryer (2014). The checklist measured five behavioral domains: cooperation, peer interaction, sharing and turn-taking, classroom participation, and adherence to classroom routines and rules, consistent with social behavior constructs identified by Rubin, Bukowski, & Parker (2006). Behaviors were rated using a Likert-type scale ranging from 1 to 5, following the recommendations of Cohen, Manion, & Morrison (2018). Content validity was supported by studies on classroom environments and hidden curriculum (Barrett et al., 2015; Jackson, 1968; Margolis, 2001). Reliability was enhanced through standardized observation procedures and consistent classroom routines across both conditions.

2.6 Data Gathering Procedure

Data were gathered through direct classroom observation under two classroom conditions. Learners were first observed in a minimally decorated classroom, followed by a three-day washout period, and then observed in a visually stimulating classroom. The same activities, observation checklist, and procedures were used throughout the study to ensure consistency and allow comparison of learners' behaviors across conditions.

2.7 Data Analysis Techniques

Descriptive statistics, specifically the weighted mean and standard deviation, were used to describe learners' observable social behaviors in each classroom environment. The Wilcoxon Signed-Rank Test was employed to determine whether significant differences existed between the two classroom conditions. This non-parametric test was appropriate for the small sample size and paired observations. To determine which classroom environment had a more positive influence on social behavior, weighted mean scores were compared. The null hypothesis was rejected when the p-value was less than or equal to 0.05 and accepted when the p-value was greater than 0.05.

2.8 Ethical Considerations

Parental or guardian consent was secured before data collection, and participants' rights, privacy, confidentiality, and voluntary participation were protected throughout the study in accordance with Creswell and Creswell (2018). The classroom teacher assisted in coordinating schedules, facilitating activities, and maintaining consistent classroom routines during both conditions. Such collaboration supports authentic behavioral observations (Gunio and Fajardo, 2018) and strengthens the validity of studies examining classroom environments and learner behavior (Barrett et al., 2015).

3. Results and Discussion

3.1 Observable Social Behavior of Grade 1 Learners Across Classroom Environments

3.1.1 Social Behaviors in Minimally Decorated and Visually Stimulating Classrooms

The findings showed that learners exposed to the visually stimulating classroom consistently obtained higher mean scores across all behavioral domains than those in the minimally decorated classroom. The greatest increases were observed in peer interaction behavior, classroom participation behavior, and sharing and turn-taking behavior. Improvements were also evident in cooperation behavior and adherence to classroom routines and rules. Overall, learners demonstrated more positive social behaviors in the visually stimulating classroom environment. These findings suggest that visual stimulation within the classroom promotes social engagement, interaction, and participation among young learners. The increase in peer interaction and participation supports Barrett et al. (2015), who emphasized that classroom features such as color and design enhance learner engagement and social responsiveness. Similarly, WTCS Pressbooks (2025) noted that organized and child-centered environments encourage exploration and active participation. The improvements in sharing, cooperation, and adherence to routines further support the idea that classroom environments function as part of the hidden curriculum that shapes learner behavior (Humphrey, 2005). The findings are also consistent with Starshine Montessori (2023), Curriculum Studies (2021), and Miller and Anderson (2021), who highlighted the role of well-designed learning environments in fostering discipline, cooperation, and social competence.

3.2 Differences in Observable Social Behavior Between Classroom Environments

3.2.1 Significance of Behavioral Differences Between Classroom Conditions

The results revealed a significant difference in the observable social behaviors of Grade 1 learners between the two classroom environments. The Wilcoxon Signed-Rank Test showed that the scores obtained in the visually stimulating classroom were consistently higher than those in the minimally decorated classroom. The median score for the visually stimulating classroom exceeded that of the minimally decorated classroom, indicating more favorable social behavior outcomes under the visually stimulating condition. The findings indicate that classroom environment significantly influences learners' social behavior. The visually stimulating classroom appeared to provide a more engaging and socially supportive setting that encouraged communication, collaboration, participation, and peer interaction. These results support Hanley, Piazza, Keen, and Blair (2017), who found that stimulating classroom environments contribute positively to children's social engagement and cooperative behavior. Likewise, Guardino and Fullerton (2010) explained that meaningful visual elements can enhance attention, motivation, and behavioral engagement. The findings are further supported by Maxwell (2016), who reported that classroom environmental quality affects children's social competence and classroom behavior.

3.3 Classroom Environment with Greater Influence on Social Behavior

3.3.1 Positive Influence of the Visually Stimulating Classroom Environment

The findings showed that the visually stimulating classroom had a stronger positive influence on the observable social behavior of Grade 1 learners than the minimally decorated classroom. Learners consistently obtained higher behavioral scores in the visually stimulating setting, particularly in cooperation, participation, sharing, and peer interaction. The significant difference between the two environments confirmed that classroom design contributed to variations in learners'

social behaviors. The results suggest that classrooms enriched with visual materials, colors, displays, and engaging learning resources create an environment that supports positive social interaction and participation. This finding aligns with the views of Lev Vygotsky, who emphasized the importance of social interaction and environmental context in learning and development, and Jean Piaget, who highlighted the role of active interaction with the environment in children's development. The findings are also supported by Barrett et al. (2015), who found that well-designed classroom environments contribute to learners' academic and social development, and by Fisher, Godwin, and Seltman (2014), who reported that appropriately stimulating classroom decorations can enhance learner engagement. Overall, the results emphasize the importance of classroom aesthetics and environmental design as components of the hidden curriculum that influence learners' social development and classroom interactions.

4. Conclusion and Recommendations

The study concluded that classroom environment significantly influences the observable social behavior of Grade 1 learners. Learners exposed to a visually stimulating classroom environment demonstrated higher levels of cooperation, peer interaction, sharing and turn-taking, classroom participation, and adherence to classroom routines and rules than those in a minimally decorated classroom. The findings further revealed a significant difference between the two classroom conditions, indicating that the visually stimulating classroom environment more effectively promoted social engagement, positive interaction, active participation, and behavioral regulation. These results highlight the importance of classroom design as part of the hidden curriculum in supporting the social development of young learners.

Teachers are encouraged to incorporate meaningful and organized visual elements, such as educational displays, learning corners, attractive color schemes, interactive materials, and child-friendly visual aids, to foster positive social behaviors among Grade 1 learners. Future researchers should conduct similar studies using larger samples from multiple schools and grade levels to strengthen the reliability and generalizability of the findings. Replication of the study in different educational contexts, including public and private schools, urban and rural settings, and inclusive classrooms, is also recommended to further examine the influence of classroom environments on learner behavior.

The study was limited by its small sample size of ten Grade 1 learners from a single school, which may restrict the generalizability of the findings to broader populations. The research was also confined to two classroom conditions within a specific educational setting, limiting the extent to which the results can represent diverse school environments and learner populations.

Compliance with ethical standards

The authors declare no conflict of interest and report that this study received no external funding. The study was conducted at Musuan Integrated School with the participation of Grade 1 learners, and informed consent was obtained from parents or guardians prior to data collection. Participation was voluntary, and data were gathered through non-invasive classroom observations conducted in collaboration with the classroom teacher. All information was treated confidentially, and no identifying details of the participants were disclosed in the study.

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