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Level of Teachers' Implementation of Kindergarten Time Blocks and Learners' Performance in Developmental Domains

1Cherry Dawn A. Apatan, 2Ma. Gloria E. Liquido, PhD

Email:cherrydawn.apatan@deped.gov.ph
1Agusan Colleges Inc. Butuan City, Philippines
2Caraga State University, Butuan City, Philippines

***Abstract*:** This study determined the relationship between teachers' implementation of the kindergarten blocks of time and the level of performance of kindergarten learners across physical, language, cognitive, and socio-emotional developmental domains. Specifically, it examined how instructional strategies, classroom management, and learner engagement, as components of block-of-time implementation, were associated with learners' developmental outcomes. The study employed a descriptive–correlational research design. Data were gathered using researcher-adapted questionnaires based on established instruments and the Early Childhood Care and Development (ECCD) checklist, which underwent face and content validation by experts in early childhood education and reliability testing through pilot implementation. Data collection followed approved administrative procedures, with questionnaires administered both personally and online. Quantitative data were analyzed using descriptive statistics and Spearman's rho correlation coefficient to determine the presence and strength of relationships between variables. Findings revealed that instructional strategies showed a significant positive relationship with language and cognitive development, indicating that learner-centered instructional practices during the kindergarten blocks of time support the development of communication and thinking skills. However, instructional strategies were not significantly related to physical and socio-emotional development. Learner engagement demonstrated a significant positive relationship with physical and language development, suggesting that active participation in classroom activities contributes to improved motor coordination and language skills. No significant relationship was found between learner engagement and cognitive or socio-emotional development. Additionally, classroom management did not show a significant relationship with any of the four developmental domains. The study highlights that instructional strategies and learner engagement play complementary roles in enhancing specific areas of kindergarten learners' development, while classroom management primarily serves as a supportive condition for effective teaching and learning

Keywords: ***Classroom Management, Developmental Domains, Kindergarten Blocks of Time, Learner Engagement***

INTRODUCTION

Kindergarten blocks of time are structured periods that intentionally balance play-based learning, guided instruction, routines, and rest to support children's holistic development. Developmentally appropriate practice emphasizes that young children learn best when daily schedules are predictable, meaningful, and responsive to their developmental needs (National Association for the Education of Young Children [NAEYC], 2020). Research has shown that well-organized time blocks provide young learners with consistent opportunities to explore, interact, and develop foundational skills across developmental domains (Mercader et al., 2021; Whittingham & Hoffman, 2020).

In the Philippine context, the importance of structured kindergarten schedules is reinforced by national education policies. Republic Act No. 10157, or the Kindergarten Education Act of 2012, mandates compulsory kindergarten education for all five-year-old children to establish strong foundations for lifelong learning (Republic of the Philippines, 2012). Further, the Department of Education institutionalized the use of intentional kindergarten time blocks through DepEd Order No. 8, s. 2015, ensuring that daily classroom schedules support age-appropriate learning experiences. More recently, DepEd Order No. 010, s. 2024 under the MATATAG Curriculum emphasized flexibility and meaningful learning by integrating structured and play-based activities within the kindergarten blocks of time (Department of Education [DepEd, 2024).

The effective implementation of kindergarten time blocks depends largely on teachers' instructional strategies, classroom management, and ability to sustain learner engagement. Studies indicate that learner-centered instructional strategies implemented within structured time blocks significantly enhance children's language and cognitive development (Aguilar, 2024; Cruz, 2022; Tan & Dizon, 2021). Similarly, structured and predictable schedules have been found to promote learner engagement and active participation in classroom activities, which are essential for early learning success (Al-Khater & Al-Ali, 2023; Monteiro et al., 2021).

Learner engagement, in particular, plays a crucial role in early childhood development. Active involvement in

classroom activities has been associated with improved physical coordination, language use, and overall developmental outcomes (Almqvist et al., 2025; Celedonia, 2025). However, while structured instruction supports academic development, physical and socio-emotional growth are often more strongly influenced by play-based activities, peer interaction, and emotionally supportive environments (Denham et al., 2012; Peña, 2020; Riser et al., 2024).

Despite strong policy support and growing research evidence, many kindergarten teachers continue to face challenges in effectively implementing the kindergarten blocks of time. Limited professional training and difficulties in applying play-based and developmentally appropriate practices hinder the full realization of intended learning outcomes (Buenaobra & Belena, 2025; Gronlund, 2021). These challenges are evident in classroom practices related to instructional delivery, routine management, and sustaining learner engagement.

In the Cabadbaran City Division, similar concerns have been observed among kindergarten teachers, highlighting the need to examine how effectively kindergarten time blocks are being implemented and how such implementation relates to learners' performance across developmental domains. Guided by these realities, this study aimed to determine the level of teachers' implementation of kindergarten time blocks and its relationship to learners' performance in physical, language, cognitive, and socio-emotional development. The findings of this study serve as a basis for proposing a teacher training program that strengthens instructional practices and enhances the quality of kindergarten education.

Theoretical framework

This study was grounded on Albert Bandura's Self-Efficacy Theory (1977), which serves as the mother theory of this research. Bandura, through his Social Cognitive Theory, emphasized that individuals' beliefs in their own capabilities known as self-efficacy which strongly influence their actions, motivation, and performance. He defined self-efficacy as "the belief in one's capabilities to organize and execute the courses of action required to produce given attainments". Within the educational context, this means that teachers who possess a strong sense of self-efficacy are more confident in their ability to design lessons, manage classrooms, and engage learners effectively, even in challenging situations. They are also more likely to exhibit persistence, adaptability, and resilience in the face of instructional difficulties.

Building upon Bandura's foundational theory, Tschannen-Moran and Woolfolk Hoy (2001) developed a framework that contextualizes self-efficacy within the teaching profession. Their model extends Bandura's concept by identifying three interrelated dimensions of teacher self-efficacy: instructional strategies, classroom management, and student engagement. Instructional efficacy refers to teachers' confidence in their ability to plan and deliver effective lessons that address diverse learners' needs. Classroom management efficacy pertains to teachers' belief in their capacity to establish and maintain a well-organized and positive learning environment. Student engagement efficacy involves teachers' confidence in their ability to motivate and sustain learners' active participation in various learning activities. These dimensions serve as the practical and behavioral expressions of Bandura's self-efficacy theory within real classroom settings.

In relation to this study on the implementation of the Kindergarten Blocks of Time in Cabadbaran City Division, teachers' self-efficacy becomes a crucial element in understanding how they implement the daily time blocks prescribed under the MATATAG Curriculum. When teachers possess high self-efficacy, they are more likely to implement the time blocks with confidence, organizing activities that balance play and structured learning, managingtransitions smoothly, and sustaining children's engagement throughout the day. Conversely, teachers with low self-efficacy may feel uncertain about their ability to implement developmentally appropriate practices or maintain learners' attention.

Bandura's Self-Efficacy Theory and Tschannen-Moran and Woolfolk Hoy's framework together help explain how teachers' confidence in their instructional, classroom management and student engagement abilities influences the effective implementation of Kindergarten Blocks of Time. Understanding these self-efficacy dimensions provides a foundation for designing a targeted training program that strengthens teachers' skills and enhances structured learning experiences for young learners in Cabadbaran City.

Methodology

This study utilized a descriptive–correlational research design to examine the relationship between teachers' implementation of the kindergarten blocks of time and learners' performance across physical, language, cognitive, and socio-emotional developmental domains. The descriptive component focused on documenting teachers' instructional strategies, classroom management practices, and learner engagement, as well as learners' developmental performance. The correlational component determined the extent of the relationship between teachers' implementation practices and learners' developmental outcomes.

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The research instruments were researcher-adapted from established sources and underwent face and content validation by experts in early childhood education. Revisions were made based on expert feedback to ensure clarity, relevance, and alignment with the study objectives. The finalized instrument was pilot-tested to establish reliability and practicality before actual data collection.

Data gathering followed approved administrative procedures. Questionnaires were distributed personally and through online platforms, collected upon completion, and checked for completeness. Responses were then systematically organized, encoded, and tabulated for statistical and thematic analysis.

For data interpretation, Spearman's rho correlation coefficient was applied to determine the presence and strength of relationships between teachers' implementation of the kindergarten blocks of time and learners' performance across developmental domains.

Sampling technique and Sample

The study employed complete enumeration as the sampling technique. All kindergarten teachers in the Cabadbaran City Division who were implementing the Kindergarten Blocks of Time were included in the study. This technique ensured full representation of the population and strengthened the validity and reliability of the findings by eliminating sampling bias.The sample consisted of forty (40) kindergarten teachers from public elementary schools in the Cabadbaran City Division, Agusan del Norte. These teachers represented both urban and rural schools and were directly involved in the implementation of the Kindergarten Blocks of Time. Since complete enumeration was utilized, the sample was equivalent to the total population of kindergarten teachers in the division.

Results and Discussions

This section presents the test of a significant relationship in the Level of the Teacher's Implementation of the Kindergarten Blocks of Time and the Level of Performance of the Kindergarten Learners in the Developmental Domains

Table 1 presents the correlation analysis between the level of the teacher's implementation of the kindergarten blocks of time and the performance of kindergarten learners across the four developmental domains: physical, language, cognitive, and socio-emotional development.

Table 1

Correlation analysis between level of the teacher's implementation of the kindergarten blocks of time and the level of performance of the kindergarten learners in the developmental domains

		Physical development	Language development	Cognitive development	Socio-emotional development
Instructional strategies	Correlation Coefficient	.298	.355*	.317*	.274
	p-value	.061	.025	.046	.087
	Decision on H_o	Do not reject H_o	Reject H_o	Reject H_o	Do not reject H_o
	Interpretation/Remarks	Not significant	Significant	Significant	Not significant
Classroom management	Correlation Coefficient	.052	.092	.017	.069
	p-value	.750	.571	.918	.672
	Decision on H_o	Do not reject H_o	Do not reject H_o	Do not reject H_o	Do not reject H_o
	Interpretation/Remarks	Not significant	Not significant	Not significant	Not significant
Learner engagement	Correlation Coefficient	.340*	.373*	.293	.272
	p-value	.032	.018	.067	.089
	Decision on H_o	Reject H_o	Reject H_o	Do not reject H_o	Do not reject H_o
	Interpretation/Remarks	Significant	Significant	Not significant	Not significant

The Spearman rho correlation was employed to determine if there existed a significant relationship between the level of teachers' implementation of the kindergarten blocks of time and the learners' level of performance across four developmental domains: physical, language, cognitive, and socio-emotional development. For instructional strategies, the results show a significant positive relationship with language development ($\rho = .355$, $p = .025$) and cognitive development ($\rho = .317$, $p = .046$). This indicates that when teachers effectively implement learner-centered instructional strategies during the kindergarten blocks of time, learners tend to demonstrate better language and cognitive skills. However, the relationships with physical development ($\rho = .298$, $p = .061$) and socio-emotional development ($\rho = .274$, $p = .087$) were not statistically

significant.

Aguilar (2024), which emphasized that the use of developmentally appropriate and learner-centered instructional strategies significantly improves young learners' language proficiency and cognitive development. Aguilar highlighted that instructional approaches aligned with children's developmental levels foster deeper understanding, sustained attention, and more effective communication skills in early childhood classrooms.

In contrast, the relationships between instructional strategies and physical development and socio-emotional development were not statistically significant. This indicates that while instructional strategies are important for academic and cognitive domains, physical and socio-emotional growth may be more strongly influenced by other factors, such as play-based activities, motor exercises, or emotional support.

Supporting this, studies have shown that play-based learning programs significantly enhance children's physical and socio-emotional development. Play-centered activities improve motor coordination, physical engagement, and overall physical skill development, whereas traditional instructional strategies have a smaller impact on these domains (Play-Based Learning as a Tool in Enhancing Physical Skill Development of Children, 2024).

Meanwhile, learner engagement demonstrated a significant positive relationship with physical development ($\rho = .340$, $p = .032$) and language development ($\rho = .373$, $p = .018$). These findings suggest that higher levels of learner engagement during classroom activities are associated with improved physical coordination and language skills. No significant relationship was found with cognitive development ($r = .293$, $p = .067$) and socio-emotional development ($r = .272$, $p = .089$).

In the present study, learner engagement demonstrated a significant positive relationship with physical development and language development suggesting that children who show higher behavioral and cognitive involvement in classroom activities are more likely to exhibit improvements in motor coordination and expressive language skills. These findings are supported by recent research indicating that engagement in activity settings and instructional tasks enhances children's active involvement, which in turn contributes to better learning and development across domains (Almqvist et al., 2025).

In this study, learner engagement did not show statistically significant relationships with cognitive or socio-emotional development. While engagement is often thought to support higher-order thinking and social skills, evidence suggests that these domains rely more on instructional quality, teacher–child relationships, and classroom social processes. Research with kindergarten populations highlights that social cognition, relational closeness, and prosocial behavior are key predictors of academic engagement outcomes (European Journal of Psychology of Education, 2024).

Further analysis shows that in terms of classroom management, all correlation coefficients across the four developmental domains were very low and not statistically significant ($p > .05$). This implies that classroom management, as implemented in the kindergarten blocks of time, does not show a measurable relationship with learners' physical, language, cognitive, or socio-emotional development in this study.

Recent literature supports this interpretation. Contemporary studies suggest that classroom management primarily serves as a foundational mechanism that allows instruction and engagement to occur, but it does not necessarily predict developmental gains unless paired with high-quality instructional strategies and emotionally supportive interactions. For instance, a large-scale study by Wang, Degol, and Henry (2020) emphasized that classroom management establishes behavioral stability, yet meaningful learning and development are more strongly influenced by instructional quality and learner engagement.

Conclusions

The study concluded that teachers' effective implementation of kindergarten blocks of time is associated with improved learner outcomes in specific developmental domains. Learner-centered instructional strategies significantly supported language and cognitive development, while learner engagement positively influenced physical and language development. However, neither instructional strategies nor learner engagement showed a significant relationship with socio-emotional development, and classroom management did not demonstrate a direct relationship with any developmental domain. The findings indicate that targeted instructional practices and active engagement are key to enhancing selected areas of kindergarten learners' development, while other domains may require play-based and emotionally supportive approaches It is recommended that kindergarten teachers may strengthen the use of learner-centered instructional strategies during the implementation of kindergarten blocks of time to further enhance learners' language and cognitive development. Teachers may also design activities that actively promote learner engagement, as increased participation appears to support physical and language development.

School administrators may consider providing

professional development programs focused on developmentally appropriate, play-based, and emotionally supportive practices to address areas not significantly influenced by instructional strategies alone, particularly socio-emotional development. Additionally, curriculum planners may review the balance of structured

instruction and play-based activities within the kindergarten schedule to ensure holistic learner development.

Future researchers may explore other factors influencing physical and socio-emotional development, such as teacher–child relationships, home environment, and school support systems, to provide a more comprehensive understanding of kindergarten learners' developmental outcomes.

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