

Kindergartners' Classroom Engagement and Inhibitory Control: Keys to their Social Skills

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Abstract

Social skills are essential for personal growth and making strong relationships with others. This study explores the influence of classroom engagement and inhibitory control on the social skills of kindergarten learners in a central school in Manolo Fortich II, Bukidnon. Utilizing a descriptive-correlational design with 144 kindergarten students and six teachers, data were gathered using validated observational tools and analyzed through canonical correlation analysis. Results revealed high levels of engagement, inhibitory control, and social skills among learners. Strong positive correlations were found between classroom engagement and inhibitory control with social skills, affirming the pivotal role of these variables in early childhood development. The findings revealed a significant positive correlation between classroom engagement and social skills, with a good percentage of the variation in social skills explained by classroom engagement. Inhibitory control also played a crucial role in fostering cooperation, communication, and empathy. Activities such as group tasks, role-playing, and turn-taking games were highlighted as effective tools for enhancing both social skills and self-regulation. The study concludes that fostering a highly engaging and emotionally supportive classroom environment is essential for developing positive social behaviors in kindergarten students. The research recommends that educators implement more structured activities to improve self-regulation and social competence in young learners, enhancing their readiness for both academic and social success.

Keywords: Classroom engagement, Inhibitory control, Social skills, Kindergarten

INTRODUCTION

Social skills are one's capacity to communicate, interact, and collaborate with others; since these skills are very important in developing teamwork, problem-solving, and relationships (Weidmann & Demin, 2020). Studying into the development of social skills among young children is crucial to academic and life achievement because gaining such skills allows children to learn to cope with others and build healthy relationships, and this research delves into how children at kindergarten level learn to conduct themselves in the classroom, regulate themselves, and gain social skills. The main purpose of this study is to offer to an improvement of the teaching strategies that helps young children in their early years. The social emotional skills are critical as they have the effect of telling us if children are ready for school, and they forecast their academic success (Lechner et al., 2022). Additionally, they stated that the learning environment for children who cannot do well if social skills are not considered, as it has positive influences in their learning environment. According to other researchers, effective social skills in children are because they perform well academically, adapt well in the classroom, and have good relationships with teachers and peers (Baria et al., 2022). Children who possess good social skills tend to work well with their

classmates and even feel good about themselves by interacting with one another because they are working with others in group projects; it is important that these competencies are acquired for the overall development and success within educational settings.

There are a lot of studies that have been done on social skills, but less is known about how classroom involvement and inhibitory control—the capacity to regulate impulses—affect these skills in early children. Children's social skills are significantly shaped by their level of classroom engagement, which encompasses both emotional and active participation. Active involvement in classroom activities fosters the development of essential social competencies, such as cooperation, communication, and empathy. It was discovered by a study that those kids who can participate actively in learning communities is likely to be capable of having a more effective social interaction, raise motivation, and attain a better academic result compared to students that has less interaction with peers in classrooms (National Association for the Education of Young Children, 2020). Positive relationships among teachers and kids also build a working environment in class and associated social skills in children (Chen et al., 2020). The findings of each of the studies show that there is a need for fostering an interesting classroom environment to ensure that the children will be able to develop and improve the social skills that are needed for them to improve their capabilities academically and personally. With the motivation of these gaps, this study examines the relation between classroom engagement, inhibitory control, and social skills among kindergarten learners in a central school in Manolo Fortich II of Bukidnon. It was descriptive-correlational research that used quantitative methods. This study looks into how the way social skills of young children are developed is affected by engagement and inhibitory control, and provides insights for the Philippine educational system; it is growing research on early childhood education. Moreover, this research also relates to UNESCO's Sustainable Development Goals (SDGs) on Goal 4 – “Quality Education, which seeks to achieve inclusive and equitable quality education as well as to promote lifelong learning opportunities for all.”

THEORETICAL FRAMEWORK

This study assumes that kindergartners' social skill development is closely tied to the quality of their engagement and their level of inhibitory control. It focuses on three key theories: Bandura's Social Cognitive Theory, Goleman's Emotional Intelligence (EI) Theory, and Vygotsky's Sociocultural Theory, all of which emphasize the role of social, emotional, and cultural contexts in learning. Bandura's theory highlights the importance of involvement and emotional management for developing social skills. According to Dale et al. (2020), children learn through observation and interaction with peers and teachers. Increased participation in classroom activities and better emotional regulation lead to stronger relationships and enhanced skills like empathy and cooperation. Vygotsky's Sociocultural Theory further explains how supportive learning environments and interactions with peers and teachers contribute to social skill development. It emphasizes that active student engagement and inhibitory control are vital for fostering social competencies. Thus, creating a classroom atmosphere that encourages social participation and self-regulation is critical for developing these essential social skills.

Cooperation, communication, empathy, and conflict resolution are crucial social skills that help children build strong relationships and navigate social challenges. A positive early childhood environment fosters these skills, preparing children for success in social settings. While research has focused on classroom motivation and self-regulation, little attention has been given to their interaction and its impact on the social skills of young learners in the Philippines, where challenges like large class sizes and limited

resources exist. This study aims to fill this gap by exploring how these challenges can benefit the overall development of young learners. It seeks to inform educational practices and interventions that promote emotional, social, and academic success, as illustrated in Figure 1, which shows the interplay of variables studied.

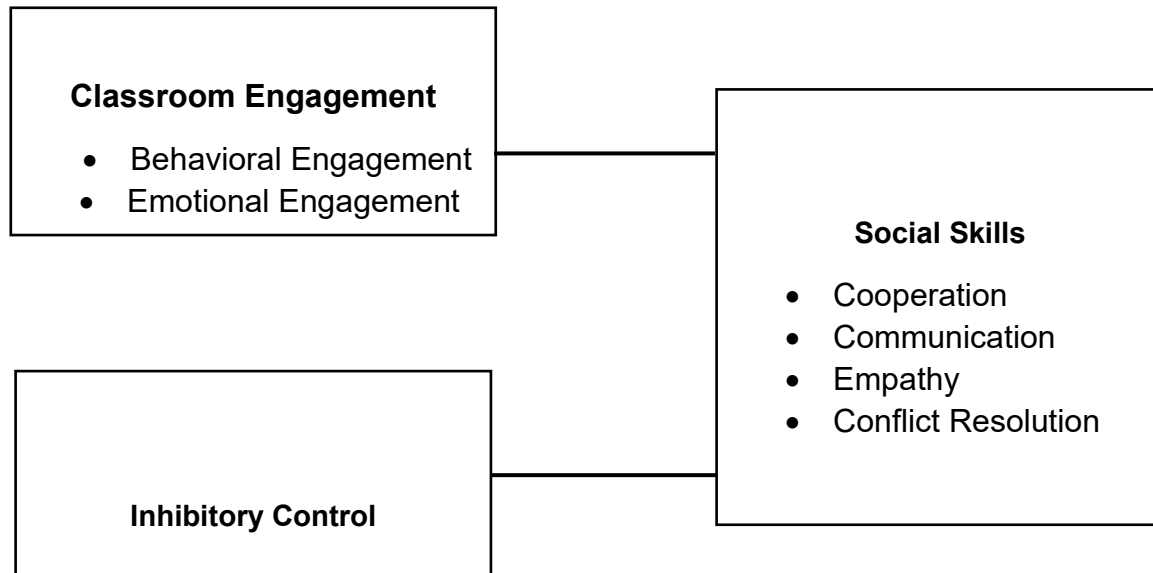


Figure 1. The Schematic Presentation of the Study

RESEARCH QUESTIONS

This study aimed to determine the significant influence of the kindergartners' classroom engagement and inhibitory control on their social skills. The study was conducted in the District of Manolo Fortich II, Bukidnon for SY 2024-2025.

Specifically, the study sought to answer the following questions:

1. What was the kindergartners' level of classroom engagement in terms of:
 - 1.1. Behavioral, and;
 - 1.2. Emotional?
2. What is the kindergartners' level of inhibitory control?
3. What is the kindergartners' level of social skills in terms of:
 4. 3.1. Cooperation;
 5. 3.2. Communication;
 6. 3.3. Empathy; and
 7. 3.4. Conflict Resolution?
8. Do the kindergartners' level of classroom engagement and inhibitory control significantly influence their social skills?

RESEARCH METHODS

A descriptive correlational research design was employed to explore the influence of classroom engagement and inhibitory control on social skills among kindergarten students. The quantitative component included surveys aimed at assessing classroom engagement and inhibitory control, and social skills. Descriptive statistics summarized the levels of classroom engagement, inhibitory control, and social skills, while inferential statistics, such as canonical correlation analysis, examined the relationships among

these variables.

RESULTS AND DISCUSSIONS

Research Question 1. What is the kindergartners' level of classroom engagement in terms of:

1.1. Behavioral; and

1.2. Emotional?

Table 1 Kindergartners' level of classroom engagement in terms of Behavioral and Emotional

Engagement			
Domain	Mean	Interpretation	SD
Behavioral	4.01	High	0.58
Emotional	4.52	High	0.65
Overall Classroom Engagement	4.27	High	0.62

Kindergartners' engagement in the classroom is summarized in table 1, which encompasses two primary domains: emotional engagement and behavioral engagement. It can be concluded from the tables that the kindergartners show high classroom engagement with a mean value of 4.27 and behavioral engagement ($M=4.01$) and emotional engagement ($M=4.52$). While there is moderate variation in scores, as indicated by standard deviations of 0.58 for behavioral and 0.65 for emotional engagement, most children actively participate and exhibit strong emotional connections to classroom activities. The classroom encourages student involvement and positive feelings. This matches research that shows both types of engagement are important for improving student success (Fasco et al., 2024). The findings of positive feeling that are felt by the student was seconded by the findings of Feiss and Moroni (2023), it was stated that the positive emotions and enthusiasm that are present in the classroom create an environment that is more engaging, which helps the students to be more physically, mentally, and emotionally engaged with the activities that are being performed in class, which leads to more participation of students and a positive classroom atmosphere. The teacher's responses underscore the value of the inclusion of organized activities, routines, and games to promote kindergartners' inhibitory control. Strategies such as "Simon says," "red light green light," and storytelling, employed by the teachers, serve to help children rehearse self-regulation, listening, and compliance with directions. Clear rules and consistent routines, as reiterated by the teachers, play an important role in minimizing distractions and promoting self-control. These strategies are consistent with the high levels of emotional involvement ($M=4.52$) found in the kindergartners, indicating that activities that support inhibitory control improve classroom behavior and emotional engagement

Research Question 2. What is the kindergartners' level of inhibitory control?

Table 2 Frequency, Percentage, and Mean Distribution of the Kindergartners' Level of Inhibitory Control

Independent Variable	Mean	Interpretation	SD
Inhibitory Control	4.13	High	0.56

Table 2 shows the frequency, percentage, and mean inhibitory control of kindergartners because most of the kindergartners have high inhibitory control, as shown in the table, with a total mean of 4.13, which can be translated as high and this indicates that most of the children can control their impulses well. The figures indicate that 67.36 percent of the children exhibited highly inhibitory control, while 18.75 percent

were classified as very high. These findings are consistent with the findings of Hendry et al. (2022), who discovered that early childhood interventions can assist in the enhancement of inhibitory control; however, obstacles persist in situations that necessitate forbearance and delayed gratification.

Research Question 3. What is the kindergartners' level of social skills in terms of Cooperation, Communication, Empathy and Conflict Resolution?

Table 3 Frequency, Percentage, and Mean Distribution of the Kindergartners' Social Skills in terms of Cooperation, Communication, Empathy and Conflict Resolution

Social Skills	Mean	Interpretation	SD
Cooperation	4.48	High	0.67
Communication	4.54	Very High	0.64
Empathy	4.37	High	0.72
Conflict Resolution Skills	4.40	High	0.69
Overall Mean	4.45	High	0.68

Results show that kindergarten children are likely to possess good social skills, which had a general mean of ($M= 4.45$) and a standard deviation of ($sd= 0.68$), it reflects that overall, the children possess highly developed social skills, which are essential for their academic and social achievement. These skills are important for building relationships and achieving success. Studies show that communication and cooperation enable children to form good relationships and perform well at school (Zöggeler et al., 2023). The findings show that kindergartners typically build excellent social skills that will benefit them academically and emotionally throughout their future. Good communication, cooperation, empathy, and conflict resolution set the stage for positive classroom behavior and social interactions. In addition, these abilities help promote emotional regulation, resilience, and the ability to deal with complicated social situations. The research, however, also points to some areas where more support would be useful, including empathy and conflict resolution, where some variation was noted. These are areas where more attention and specific interventions might be needed to further enhance the emotional intelligence and social skills of the children.

Research Question 4. Are the kindergartners' level of classroom engagement and inhibitory control significantly associated with their social skills?

Ho1: The kindergartners' level of classroom engagement is not significantly associated with their social skills.

Variables	Canonical Loadings	r_c	R_c^2	F(8,276)	p
Classroom Engagement					
Behavioral	-0.81				
Emotional	-0.98				
Social Skills		0.91	0.83	47.21*	<.001
Cooperation	-0.99				
Communication	-0.95				
Empathy	-0.90				
Conflict Resolution	-0.89				

*Significant at .01 level of significance.

Table 4 Canonical Correlation Analysis on the Association of Kindergartners' Classroom

Engagement to their Social Skills

Table 4 shows the result of a canonical correlation analysis of the relationship between kindergarten classroom participation, both emotional and behavioral, and its relationship with their social skills. It can be gleaned from the figures that kindergartners' classroom engagement is significantly associated with their social skills ($rc = 0.91$, $Rc^2 = 0.83$, $F(8,276) = 47.21$, $p < .001$). The results suggest that the high levels of engagement present in the classroom, which encompass the active participation and emotional engagement of the students, are closely linked to ensuring that the kindergartners have better social skills. This supports the null hypothesis rejection by providing evidence that the kindergartners who are more engaged in class tend to demonstrate high social skills than students who do not actively engage in group activities, and recitations. The variables that were present have shown a strong positive relationship due to high classroom engagement among kindergartners, which resulted in 83% of the variations in the social skills of the kindergartners. It was also revealed in the canonical loadings which indicates the strength and direction of the correlation that there is a negative correlation for behavioral engagement (-0.81), emotional engagement (-0.98), cooperation (-0.99), communication (-0.95), empathy (-0.90), and conflict resolution (-0.89) with their canonical covariate. These outcomes align with previous research highlighting the importance of engagement in developing social skills. Studies by Jones and Harris (2020) and Apat et al. (2023) emphasize that active participation enhances skills like empathy and conflict resolution. Therefore, promoting interactive and emotional activities in the classroom is crucial for improving students' social skills.

Ho2: The kindergartners' inhibitory control is not significantly associated with their social skills.

Table 5 Canonical Correlation Analysis on the Association of Kindergartners' Inhibitory Control to their Social Skills

Variables	Canonical Loadings	r_c	R_c^2	$F(4,139)$	p
Inhibitory Control	1.00	0.77	0.59	51.89*	<.001
Social Skills					
Cooperation	0.99				
Communication	0.94				
Empathy	0.86				
Conflict Resolution	0.90				
*Significant at .01 level of significance.					

Table 5 shows the result of a canonical correlation analysis between the kindergartners' inhibitory control and their social skills. The figures show that kindergartners' inhibitory control is significantly associated with their social skills ($rc = 0.77$, $Rc^2 = 0.59$, $F(4,139) = 51.89$, $p < .001$). Hence, the null hypothesis is rejected. From the findings of this study, there is sufficient evidence that kindergartners who can manage their impulses more effectively demonstrate better cooperation, communication, empathy, and conflict resolution. These variables have a strong positive relationship, where their inhibitory control explains 59 percent of the variation in the kindergartners' social skills. The other 41% variance suggests that the other variables, such as emotional regulation, family support, peer relationship, and climate in the class, also contribute highly to the acquisition of social skills. This shows how complex and varied the process of developing social skills in the early years is when both self-regulation and environmental factors must be considered. This shows the complex, multifaceted nature of social skill development in early childhood,

when both self-regulation and external influences must be considered. canonical loadings, which represent the correlation between the observed variables and their respective canonical variates, were examined to interpret the nature of this relationship. Cooperation (loading = 0.99), communication (loading = 0.94), empathy (loading = 0.86), and conflict resolution (loading = 0.90) have a positive correlation with their canonical covariate. These variables contribute to their social skills. Research supports this relationship; for instance, studies have shown that children with higher inhibitory control exhibit better social competence and interpersonal skills (Barakat & Ahlam, 2025). This shows how important it is for young children to manage their impulses. It helps them have better social interactions. Thus, the teachers' feedback underscores the importance of integrating structured activities, emotional support, and positive reinforcement to nurture academic and social competencies in young learners. These findings align with the researcher's emphasis on the role of "Games", "Routines", and "Positive Discipline" in promoting a supportive and engaging learning environment for kindergartners. Ren et al. (2022) argue that clear routines and positive discipline techniques provide the structure necessary for young children to thrive academically and socially, further supporting the teachers' observations in this study.

CONCLUSIONS

The study confirms that kindergartners' engagement and ability to control their impulses are associated with their social skills. The kindergartners showed high levels of engagement and impulse control. These qualities were strongly linked to improvements in important social skills like cooperation, communication, empathy, and resolving conflicts. These results support the idea that being engaged in the classroom and managing behavior are key for fostering positive social interactions in early childhood. Moreover, the study's findings support existing theories about early childhood development. They show that emotional and behavioral engagement fosters positive social interactions. Inhibitory control, or the ability to manage impulses, is important for responding appropriately to social cues. Therefore, the study met its objectives and confirmed the theories used.

RECOMMENDATIONS

The recommendations below are based on the study's findings. They focus on improving social skills in kindergarten students:

1. Teachers. That they may create and use teaching methods that encourage student participation in the classroom. Use group activities, team projects, and hands-on learning experiences to help students interact with each other.
2. Early Childhood Education Professionals. They may enhance their programs to promote social skills as an important aspect of early childhood education.
3. Parents and Guardians. They may help children develop social skills at home. Also, parents are encouraged to attend workshops that can create a strong partnership in supporting these skills. Community programs can also provide activities that encourage teamwork and empathy among children.
4. Future researchers. They may explore how other factors, like relationships between teachers and children and interactions among peers, affect the development of social skills. Understanding how engagement, self-control, and social skills influence each other will help clarify their impact on academic success in different cultural settings, such as the Philippines. There is also room to research

how various social environments and teaching methods influence the growth of important social skills in children.

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