

“Secure Attachment and Peer Interaction Quality: Implications on Kindergartners’ Socio Emotional Skills”

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DOI: <https://doi.org/10.47772/IJRISS.2026.100500203>

Received: 20 April 2026; Accepted: 25 April 2026; Published: 26 May 2026

ABSTRACT

This study examined the associations between secure attachment, peer interaction quality, and socio-emotional skill development among kindergartners. A descriptive-correlational research design was employed, utilizing cross-sectional data collected from 241 kindergarten students in a selected school district of Misamis Oriental during School Year 2025–2026. Teacher-administered questionnaires measured secure attachment (emotional security and effective communication) and socio-emotional skills (self-awareness, self-management, and relationship skills), while structured classroom observations assessed peer interaction quality in terms of frequency and supportiveness. Canonical correlation analysis was used to determine multivariate relationships among the variables. Results revealed that kindergartners demonstrated very high levels of secure attachment and peer interaction quality, alongside generally high socio-emotional skills. Secure attachment showed a significant positive association with socio-emotional skills, particularly in enhancing relationship skills, indicating its important role in early childhood socio-emotional development. In contrast, peer interaction quality did not show a statistically significant independent relationship with socio-emotional outcomes, suggesting that peer experiences alone may not directly predict socio-emotional growth without the presence of supportive teacher–child relationships. Overall, the findings highlight that secure attachment with teachers serves as a key foundation for socio-emotional competence, while peer interactions function as a complementary but insufficient predictor when not supported by emotionally responsive caregiving. The study recommends strengthening teacher emotional availability and integrating structured social-emotional learning interventions to enhance children’s developmental outcomes. Future research is encouraged to employ longitudinal designs and explore mediating factors to further understand attachment-related developmental pathways.

Keywords: Secure attachment, Peer interaction quality, Teacher emotional availability, Socio-emotional skills, Kindergartners, Descriptive-correlational design

INTRODUCTION

In recent years, there has been growing recognition that children need to develop not only cognitive abilities but also strong social and emotional competencies to succeed in school and in life. Social and emotional skills include the ability to understand and manage emotions, build positive relationships, show empathy, make responsible decisions, and achieve personal goals. These competencies are important because they influence how children interact with others, respond to challenges, and perform academically. According to the Collaborative for Academic, Social, and Emotional Learning or CASEL (2022), social and emotional competencies are essential for holistic development and long-term success. Similarly, Tussey (2020) and Goleman (2020), emphasized that these skills help children develop self-regulation, social functioning, and emotional stability, which are necessary for both personal and academic growth.

One of the most important factors that shape children’s socio-emotional development is secure attachment. Secure attachment refers to the strong emotional bond between a child and a caregiver, where the child feels safe, loved, protected, and supported. Bowlby (1969), explained that children’s early attachment experiences greatly influence their emotional, social, and cognitive development. Likewise, Ainsworth et al. (1978), found that securely attached children are more likely to demonstrate confidence, independence, emotional control, and

positive relationships with others. These children are also more capable of exploring their environment, coping with stress, and adjusting to social situations.

Socio-emotional competencies are commonly described through five major domains: self-awareness, self-management, social awareness, relationship skills, and responsible decision-making, as outlined in the CASEL framework (2025). These competencies help children understand their own feelings, interact positively with others, and respond appropriately to different situations. Since socio-emotional skills are essential for children's well-being and academic success, it is important to understand the factors that influence their development. Among these factors, secure attachment remains one of the most significant because it provides children with a strong emotional foundation that supports healthy growth.

Although attachment to parents, especially mothers, is often considered the child's primary attachment relationship, children usually form bonds with several caregivers during early childhood. These include grandparents, relatives, daycare providers, nursery staff, and preschool teachers. Arace et al. (2021), noted that professional caregivers and teachers play an important role in children's daily lives because they often spend many hours caring for and guiding young children. Through supportive and responsive interactions, teachers may become important secondary attachment figures who help children feel safe and emotionally secure in school.

In the Philippine context, parental involvement has been identified as a major factor in children's socio-emotional development Garcia et al. (2024), found that strong parental support is associated with better emotional regulation, stronger peer relationships, and improved social adjustment among children. Filipino culture highly values close family relationships, respect, and emotional connectedness, making the family environment especially important in shaping children's behavior and emotional well-being. Santos (2021), further emphasized that Filipino parents significantly influence their children's ability to regulate emotions, form friendships, and navigate social situations.

However, recent educational concerns highlight the importance of strengthening children's socio-emotional well-being. Results from the 2022 Programme for International Student Assessment (PISA) revealed that many Filipino students reported feeling unsafe in school and experienced higher rates of bullying and social difficulties. These findings show the need for supportive environments where children can develop trust, confidence, and positive social interactions. In schools, teachers play an important role in meeting these needs by creating safe, nurturing, and supportive classrooms. Martin et al. (2021), emphasized that teacher-child interactions in early childhood settings serve as the basis for developing secondary attachment relationships that promote children's emotional security.

Research also shows that intervention programs designed to strengthen positive relationships between children and caregivers can improve children's social and emotional outcomes. Programs that encourage secure and supportive relationships at home and in school have been found to improve children's emotional regulation, social competence, and ability to cope with challenges. At home, children benefit from stable and loving relationships with parents or other caregivers. In school, children also need close and positive relationships with teachers and classmates to support their emotional and social development.

On the other hand, children who experience negative caregiving environments, such as harsh, inconsistent, neglectful, or non-responsive parenting, are more likely to develop social-emotional and behavioral problems. Evidence suggests that children exposed to such caregiving conditions are at greater risk for insecure attachment, aggression, anxiety, poor emotional control, and difficulties in social relationships. Negative experiences with caregivers may also affect children's expectations about future relationships and reduce their sense of trust and security.

Furthermore, the family serves as the first and most important environment for children's growth and development. Fan (2022), emphasized that family education provides the foundation for children's learning and serves as an important complement to school education. Secure attachment is considered a protective factor that helps children develop independence, emotional regulation, socialization, and confidence. In contrast, insecure attachment may place children at risk for hostile interactions, behavioral problems, and emotional difficulties.

Given these conditions, there is a need to strengthen children's secure attachment both at home and in school. At home, children need consistent support from their primary attachment figures, usually parents or guardians. In school, teachers can serve as secondary attachment figures who provide care, encouragement, and emotional security. Examining the relationship between secure attachment and socio-emotional skills is important because it can provide valuable insights into how children's emotional and social development can be supported more effectively. This study contributes to the growing body of knowledge on early childhood attachment and its influence on socio-emotional development, particularly within the Philippine educational context. It also provides a basis for designing interventions and programs that strengthen supportive relationships between children, families, and teachers.

Moreover, this study supports the United Nations Sustainable Development Goal 4 on Quality Education, which aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Socio-emotional development and secure attachment are essential components of quality early childhood education because they help children develop confidence, emotional stability, positive relationships, and readiness for learning. By examining how secure attachment influences socio-emotional skills, this study may contribute to the development of educational practices and family support programs that promote safe, nurturing, and supportive environments for young children. In doing so, the study also supports SDG 3 on Good Health and Well-Being, as children's emotional security and social well-being are important foundations for healthy development and overall quality of life.

Theoretical and Conceptual Framework

This study posits that secure attachment and peer interaction significantly contribute to the socio-emotional skills of kindergartners. Bowlby's Attachment Theory (1969) explains that emotional bonding influences children's socio-emotional development and peer competence, particularly during kindergarten when they undertake challenging social tasks, practice emotional regulation, and develop peer relationships. Securely attached kindergartners become adaptable, confident, and emotionally stable, capable of regulating emotions, solving social problems, and working collaboratively (Bowlby, 1969; Ainsworth et al., 1978). This emotional security fosters exploration, trust toward caregivers like teachers, academic success, and social adjustment (Bowlby, 1988; Pianta, 1999). Consequently, secure attachment—through emotional security and effective communication—enhances self-awareness, self-management, and relationship skills, while insecure attachment leads to lower socio-emotional proficiency. As children progress, responsive interactions build emotional clarity and stability, enabling continuous socio-emotional growth (Ainsworth, 1978; Zhang, 2024). These dynamics prompted this study to address gaps in kindergartners' socio-emotional development related to secure attachment and peer interaction quality. The conceptual framework hypothesizes relationships among independent variables—secure attachment (emotional security, effective communication) and peer interaction (frequency, supportiveness)—and the dependent variable, socio-emotional skills (self-awareness, self-management, relationship skills; CASEL, 2020). Secure attachment provides an emotional foundation for confidence and exploration, while frequent, supportive peer interactions offer practice for social competence. Together, these factors cultivate essential socio-emotional proficiency for school readiness and holistic development.

Research Questions

This study aimed to determine the influence of secure attachment and positive peer interactions on the kindergartners' socio-emotional skills, from a district in Misamis Oriental. Specifically, the study sought to answer the following questions:

1. What is the kindergartners' level of secure attachment as assessed by the teachers in terms of:
 - 1.1. Emotional Security; and
 - 1.2. Effective Communication?
2. What is the participants' extent of peer interactions in terms of:
 - 2.1. Frequency; and

2.2. Supportive Interaction?

3. What is the level of participants' socio-emotional skills in terms of:

3.1. Self-awareness;

3.2. Self-Management;

3.3. Responsible Skills?

4. Are the participants' secure attachment, peer interactions, and teachers' emotional availability significantly associated with their socio-emotional skills?

REVIEW OF RELATED LITERATURE AND STUDIES

This study posits that secure attachment and peer interaction significantly contribute to the socio-emotional skills of kindergartners. Bowlby's Attachment Theory (1969) explains that emotional bonding influences children's socio-emotional development and peer competence, particularly during kindergarten when they undertake challenging social tasks, practice emotional regulation, and develop peer relationships. Securely attached kindergartners become adaptable, confident, and emotionally stable, capable of regulating emotions, solving social problems, and working collaboratively (Bowlby, 1969; Ainsworth et al., 1978). This emotional security fosters exploration, trust toward caregivers like teachers, academic success, and social adjustment (Bowlby, 1988; Pianta, 1999). Consequently, secure attachment—through emotional security and effective communication—enhances self-awareness, self-management, and relationship skills, while insecure attachment leads to lower socio-emotional proficiency. As children progress, responsive interactions build emotional clarity and stability, enabling continuous socio-emotional growth (Ainsworth, 1978; Zhang, 2024). These dynamics prompted this study to address gaps in kindergartners' socio-emotional development related to secure attachment and peer interaction quality. The conceptual framework hypothesizes relationships among independent variables—secure attachment (emotional security, effective communication) and peer interaction (frequency, supportiveness)—and the dependent variable, socio-emotional skills (self-awareness, self-management, relationship skills; CASEL, 2020). Secure attachment provides an emotional foundation for confidence and exploration, while frequent, supportive peer interactions offer practice for social competence. Together, these factors cultivate essential socio-emotional proficiency for school readiness and holistic development.

METHODOLOGY

This study provides the methodology for the study on the impact of secure attachment on the socioemotional abilities of kindergartners, which is pertinent to the ongoing research. This section covers the research design, research location, research population and sample, research instrument, instrument validity and reliability, data collection process, scoring process, and statistical analysis.

This study employed a descriptive-correlational research design. According to Creswell and Creswell (2022), correlational research involves collecting data to determine the relationship or association among variables without manipulating or controlling them. This design was appropriate for the study because it allowed the researcher to examine whether secure attachment, peer interactions, and teachers' emotional availability are significantly associated with the socio-emotional skills of kindergartners. The descriptive aspect of the design was used to describe the participants' levels of secure attachment, peer interaction quality, teachers' emotional availability, and socio-emotional skills.

Meanwhile, the correlational aspect was used to determine whether significant relationships exist among these variables. Since the study aimed to identify whether children with stronger attachment, more positive peer interactions, and higher emotional support from teachers also demonstrate better socio-emotional skills, the descriptive-correlational design was considered the most appropriate approach. Data were gathered through a questionnaire administered to kindergarten students and their respective teachers or caregivers. The instrument

included items that measured socio-emotional skill development, attachment security, peer interaction quality, teachers’ emotional availability, and the respondents’ demographic profile.

RESULTS AND DISCUSSIONS

Research Question

Problem 1. As assessed by the teachers’ level of secure attachment in terms of:

Emotional Security; and

Effective Communication?

Table 1 summarizes the participants’ level of secure attachment in terms of emotional security and effective communication. The findings revealed a grand mean of $M = 4.89$ with an $SD = 0.17$, interpreted as *Very High*. This indicates that the kindergartners consistently demonstrated a very strong level of secure attachment to their teachers. This further implies that the learners feel emotionally safe, supported, and comfortable in their classroom environment, which may help them participate actively in learning activities and interact positively with others. A strong sense of secure attachment is important because it contributes to children’s emotional regulation, confidence, and social adjustment. This finding is supported by Dumont et al. (2025), who found that responsive and emotionally supportive teacher-child relationships strengthen secure attachment and improve communication and emotional regulation among young children. Similarly, Bendel-Stenzel et al. (2022), emphasized that teacher responsiveness and emotional availability are important predictors of secure attachment and socio-emotional competence.

Table 1 Summary Table of Secure Attachment

Dimensions	Mean	Interpretation	SD
Emotional Security	4.83	Very High	0.28
Effective Communication	4.95	Very High	0.18
Overall Secure Attachment	4.89	Very High	0.17

Legend: 4.51-5.0 (*Very High*); 3.51-4.0 (*High*); 2.51-3.50 (*Moderate*);
1.51-2.50 (*Low*); 1.0 – 1.50 (*Very Low*)

The pattern of the means indicates that both dimensions of secure attachment were rated within the *Very High* category. Effective communication obtained the highest mean with $M = 4.95$ and $SD = 0.18$, while emotional security followed closely with $M = 4.83$ and $SD = 0.28$. This pattern indicates that the kindergartners consistently demonstrated strong communication skills and emotional stability in their interactions with teachers. The small difference between the two dimensions also shows that both aspects of secure attachment are highly developed among the participants. This trend may indicate that the teachers are able to provide a nurturing classroom environment where children feel emotionally secure and are encouraged to communicate openly. According to Dumont et al. (2025), children who experience emotionally responsive relationships are more likely to develop secure attachment patterns, which positively affect their communication and socio-emotional skills.

Among the two dimensions, effective communication obtained the highest mean of $M = 4.95$ with an $SD = 0.18$, interpreted as *Very High*. This indicates that the kindergartners were highly capable of expressing their needs, feelings, and experiences while also responding appropriately to teacher cues and questions. This is important because communication is one of the main ways through which children build relationships, regulate their emotions, and participate in classroom activities. Strong communication skills also help children develop confidence and become more comfortable interacting with teachers and classmates.

Meanwhile, emotional security obtained a mean of $M = 4.83$ with an $SD = 0.28$, also interpreted as *Very High*. Although it had the lower mean between the two dimensions, it still remained within the highest descriptive category. This means that the kindergartners consistently demonstrated emotional stability, trust, and comfort in their relationships with teachers. Children who feel emotionally secure are more likely to recover quickly from distress, adapt to classroom transitions, and participate actively in learning activities. Emotional security is important because it provides the foundation for positive socio-emotional development and classroom adjustment.

The narrow range between the two means reflects a highly consistent level of secure attachment across the dimensions. This consistency indicates that the kindergartners not only feel emotionally supported by their teachers but also communicate effectively within the classroom environment. Such a pattern highlights that secure attachment among the participants is well-developed and evident in both emotional and communicative aspects of teacher-child relationships. The low standard deviations also indicate that the responses were closely clustered, showing that the participants shared similar experiences of teacher support and attachment.

Moreover, the consistently high ratings in both emotional security and effective communication reflect that the teachers are likely providing a warm, responsive, and supportive environment for the learners. This is important because children who experience positive teacher-child relationships are more likely to demonstrate emotional resilience, classroom engagement, and stronger social competence. Bendel-Stenzel et al. (2022) explained that emotionally available teachers help children feel more secure and socially confident, which positively affects their learning and behavior.

Taken as a whole, the findings show that the kindergartners have a very high level of secure attachment to their teachers. This means that they experience both emotional security and effective communication in the classroom, which are important foundations for socio-emotional growth. From a pedagogical perspective, teachers should continue maintaining nurturing relationships, responsive communication, and emotionally supportive classroom practices. These strategies may help sustain children’s trust, confidence, and positive engagement in school experiences.

Table 2 summarizes the kindergartners’ peer interaction quality across the two dimensions. The findings revealed a grand mean of $M = 4.93$ with an $SD = 0.11$, interpreted as *Very High*. This indicates that the participants consistently demonstrated a very high level of peer interaction quality in the classroom. This further implies that the learners not only interact frequently with their classmates but also demonstrate positive and supportive behaviors during these interactions. High-quality peer interaction is important because it helps children develop communication skills, empathy, cooperation, and emotional understanding. This finding supports the study of Wang (2025), who emphasized that positive peer interaction in early childhood contributes significantly to the development of social competence and prosocial behavior

Research Question 2. Problem 2. What is the kindergartners' level of peer interaction quality in terms of: Frequency; and Supportiveness?

Table 2 Summary Table of Peer Interaction Quality

Dimensions	Mean	Interpretation	SD
Frequency	4.89	Very High	0.25
Supportiveness	4.98	Very High	0.14
Overall Peer Interaction Quality	4.93	Very High	0.11

Legend: 4.51-5.0 (*Very High*); 3.51-4.0 (*High*); 2.51-3.50 (*Moderate*);

*1.51-2.50 (Low);**1.0 – 1.50 (Very Low)*

The pattern of the means indicates that both dimensions of peer interaction quality were rated within the Very High category. Supportiveness obtained the highest mean with $M = 4.98$ and $SD = 0.14$, while frequency followed with $M = 4.89$ and $SD = 0.25$. This pattern indicates that the kindergartners not only interacted regularly with their peers but also showed supportive behaviors such as inclusion, encouragement, and cooperation. The small difference between the two dimensions also reflects that both frequent interaction and supportiveness are consistently present among the participants. This trend may indicate that the classroom environment provides opportunities for children to engage in meaningful and positive social exchanges. According to Wang (2023), children who experience socially responsive environments are more likely to develop stronger relationship skills and emotional understanding.

Among the two dimensions, supportiveness obtained the highest mean of $M = 4.98$ with an $SD = 0.14$, interpreted as *Very High*. This indicates that the kindergartners frequently demonstrated empathy, encouragement, and inclusiveness toward their peers. This is important because supportive peer behavior helps children feel accepted, valued, and emotionally secure within the classroom. Children who experience supportive peer relationships are more likely to build confidence, cooperate with others, and develop stronger social skills.

Meanwhile, frequency obtained a mean of $M = 4.89$ with an $SD = 0.25$, also interpreted as *Very High*. Although it had the lower mean between the two dimensions, it still remained within the highest descriptive category. This means that the kindergartners frequently engaged in interactions with their peers during classroom activities and play. Frequent peer interaction is important because it allows children to practice communication, social participation, and relationship-building skills on a regular basis. Children who interact often with peers are more likely to become socially confident and emotionally responsive.

The narrow range between the two means reflects a highly consistent level of peer interaction quality across the dimensions. This consistency indicates that the kindergartners not only participate regularly in peer interactions but also demonstrate positive and caring behaviors during these interactions. Such a pattern highlights that peer interaction quality is well-developed among the participants and is evident in both the quantity and quality of their social exchanges. The low standard deviations also indicate that the participants had similar experiences in terms of peer relationships and classroom interaction.

Moreover, the consistently high ratings in both dimensions may reflect that the classroom environment promotes collaboration, empathy, and prosocial behavior. This is important because children who are exposed to positive peer relationships are more likely to develop stronger social awareness, emotional regulation, and conflict resolution skills. Supportive and frequent peer interaction also helps children learn how to work with others, understand different perspectives, and respond appropriately to social situations.

In summary, the findings show that the kindergartners possess a very high level of peer interaction quality. This means that they interact frequently with peers while also demonstrating strong supportive behaviors in the classroom. From a pedagogical perspective, teachers should continue encouraging cooperative play, peer collaboration, and inclusive classroom activities that strengthen positive peer relationships. These strategies may further improve children's empathy, communication skills, and socio-emotional development.

Research Question 3. What are the participants' socio-emotional skills in terms of:

Self-awareness;

Self-management; and

Relationship Skills?

Table 3 summarizes the participants' socio-emotional skills across the dimensions of self-awareness, self-management, and relationship skills. The findings revealed a grand mean of $M = 3.48$ with an $SD = 0.19$, interpreted as *High*. This indicates that the kindergartners generally demonstrated a high level of socio-emotional skills. This further implies that the learners are already capable of recognizing emotions, regulating behaviors,

and interacting positively with peers and teachers, although some socio-emotional abilities are still developing. Socio-emotional skills are important because they help children manage emotions, build relationships, and participate more effectively in classroom activities. According to the Collaborative for Academic, Social, and Emotional Learning (2020), socio-emotional competencies such as self-awareness, self-management, and relationship skills are essential foundations for academic success and social adjustment.

Table 3 Summary Table of Participants’ Socio-Emotional Skills

Dimensions	Mean	Interpretation	SD
Self-awareness	3.33	High	0.32
Self-management	3.31	High	0.33
Relationship Skills	3.81	Very High	0.23
Overall Socio-Emotional Skills	3.48	High	0.19

Legend: 4.51-5.0 (*Very High*); 3.51-4.0 (*High*); 2.51-3.50 (*Moderate*);

1.51-2.50 (*Low*); 1.0 – 1.50 (*Very Low*)

The pattern of the means indicates that relationship skills obtained the highest mean with $M = 3.81$ and $SD = 0.23$, interpreted as *Very High*. This was followed by self-awareness with $M = 3.33$ and $SD = 0.32$, and self-management with $M = 3.31$ and $SD = 0.33$, both interpreted as *High*. This pattern indicates that the kindergartners are more advanced in building positive relationships with others than in understanding and regulating their own thoughts, emotions, and behaviors. This further means that external social behaviors such as cooperation, sharing, and responding positively to others appear to develop earlier than internal skills such as reflection and emotional control. This trend is consistent with research showing that young children often demonstrate observable social skills before more complex self-regulatory abilities become fully established. Warren et al. (2020) found that social-emotional learning activities in early childhood improve peer relationships, empathy, and self-control.

Among the dimensions, relationship skills obtained the highest mean of $M = 3.81$ with an $SD = 0.23$, interpreted as *Very High*. This indicates that the kindergartners were highly capable of cooperating with peers, responding positively to teachers, and maintaining harmonious interactions in the classroom. This is important because relationship skills help children build friendships, feel emotionally secure, and participate effectively in group activities. Children who have strong relationship skills are more likely to develop confidence, empathy, and positive attitudes toward school.

Meanwhile, self-awareness obtained a mean of $M = 3.33$ with an $SD = 0.32$, interpreted as *High*. This means that the kindergartners were beginning to recognize their strengths, understand emotions, and reflect on their actions, although these skills were still in the process of development. Self-awareness is important because it allows children to understand themselves better and become more conscious of their feelings and behaviors. Children who are self-aware are more likely to become emotionally responsive and socially sensitive.

The lowest mean was obtained by self-management with $M = 3.31$ and $SD = 0.33$, interpreted as *High*. Although it had the lowest mean among the dimensions, it still remained within the high category. This indicates that the kindergartners were beginning to regulate their emotions, adapt to changes, and cooperate with others, although these skills were not yet fully consistent. Self-management is often more difficult for young children because it requires emotional control, patience, and the ability to think before acting. As a result, this dimension may require more teacher guidance and repeated practice.

The relatively narrow range of means across the three dimensions reflects a generally consistent level of socio-emotional skills among the participants. This consistency indicates that the kindergartners are developing socio-

emotional competencies in multiple areas, although relationship skills appear to be more advanced than self-awareness and self-management. The lower means in self-awareness and self-management also show that internal emotional and behavioral skills continue to mature gradually during early childhood. According to Rana (2024), culturally relevant and creative classroom activities can strengthen children’s socio-emotional competence and support the development of these emerging skills.

As a whole, the findings show that the kindergartners possess a high level of socio-emotional skills, particularly in relationship-building. This means that they are already capable of engaging positively with peers and teachers, although some internal skills such as emotional regulation and self-reflection are still developing. From a pedagogical perspective, teachers should continue implementing structured social-emotional learning activities that encourage children to express emotions, reflect on their actions, and practice self-control. Supportive classroom environments, guided interactions, and emotionally responsive teaching practices may further strengthen children’s self-awareness, self-management, and relationship skills.

Research Question 4. Are the participants’ secure attachment and peer interactions significantly associated with their socio-emotional skills?

Ho1: The participants’ secure attachment is not significantly associated with their socio-emotional skills.

Ho2: The participants’ peer interactions are not significantly associated with their socio-emotional skills.

Table 11 presents the results of the *canonical correlation analysis between secure attachment and socio-emotional skills*. The findings revealed a canonical correlation of $R = 0.400$ with an $R^2 = 0.160$, indicating a moderate and statistically significant relationship between the two sets of variables. The computed value of $F(6, 472) = 7.89$ with $p < .001$ shows that the relationship is significant at the 0.01 two-tailed alpha level. Therefore, the null hypothesis stating that the participants’ secure attachment is not significantly associated with their socio-emotional skills is rejected. This indicates that secure attachment contributes meaningfully to the socio-emotional development of kindergartners. The R^2 value further means that approximately 16% of the variance in socio-emotional skills may be explained by secure attachment. This finding supports the idea that children who experience emotional security and effective communication with teachers are more likely to demonstrate stronger socio-emotional skills. This is consistent with Bowlby’s Attachment Theory, which explains that emotionally responsive relationships provide children with a secure base for social and emotional growth.

Table 11 Canonical Correlation Analysis Between Secure Attachment and Socio-Emotional Skills

Variable	Cross loading	R	R2	F(6, 472)	p
Secure Attachment		0.400	0.160	7.89**	<.001
Emotional Security	-.259				
Effective Communication	-.303				
Socio Emotional Skills					
Self Awareness	-0.071				
Self Management	-0.014				
Relationship Skills	-0.383				

**significant at 0.01 two-tailed alpha level.

The pattern of the cross-loadings indicates that secure attachment is more strongly associated with some socio-emotional skills than others. On the secure attachment side, effective communication obtained the stronger loading at -0.303 compared to emotional security at -0.259 . On the socio-emotional skills side, relationship

skills had the strongest loading at -0.383 , while self-awareness and self-management had much weaker loadings at -0.071 and -0.014 , respectively. This pattern indicates that secure attachment is most strongly linked with children's ability to form and maintain positive relationships. The trend also implies that teacher-child attachment may influence external social behaviors more strongly than internal emotional and reflective skills. This finding is supported by Gebre (2025), who noted that emotionally supportive teacher-child relationships are closely linked with children's social competence and classroom engagement.

Among the secure attachment indicators, effective communication obtained the stronger cross-loading of -0.303 . This indicates that communication between teachers and children plays a more important role in socio-emotional development than emotional security alone. Children who can express their feelings, respond to teacher cues, and share their experiences are more likely to develop stronger social and emotional skills. Effective communication is important because it allows children to feel heard, understood, and supported in the classroom. When teachers communicate warmly and responsively, children may become more confident in interacting with others and expressing their emotions appropriately.

Meanwhile, emotional security obtained a cross-loading of -0.259 , which still reflects a moderate relationship with socio-emotional skills. This indicates that children who feel safe, calm, and emotionally supported by their teachers are more likely to develop positive socio-emotional outcomes. Emotional security is important because it helps children manage distress, adjust to transitions, and participate more actively in classroom activities. Children who feel emotionally secure are also more likely to trust teachers, engage with peers, and develop stronger confidence in social situations.

On the socio-emotional skills side, relationship skills obtained the strongest loading of -0.383 . This indicates that relationship skills are the socio-emotional domain most strongly associated with secure attachment. Children who experience strong attachment with teachers are more likely to cooperate with peers, seek support from adults, and participate positively in group activities. This finding implies that secure attachment may play a particularly important role in shaping children's social competence and ability to form trusting relationships. Murray et al. (2025), also found that positive interpersonal relationships in early childhood contribute significantly to social competence and academic adjustment.

In contrast, self-awareness and self-management obtained much weaker loadings of -0.071 and -0.014 , respectively. This indicates that secure attachment has a less direct relationship with children's internal emotional and behavioral regulation skills. Self-awareness and self-management may depend on other factors such as age, temperament, family support, and opportunities for guided reflection. Since these skills involve internal processes such as recognizing feelings, evaluating choices, and regulating behavior, they may develop more gradually and require more intentional instruction and repeated practice than relationship skills.

In sum, the findings show that secure attachment has a significant and meaningful association with socio-emotional skills among kindergartners. However, the relationship appears strongest in the area of relationship skills rather than self-awareness or self-management. This means that children who experience emotional security and effective communication with teachers are more likely to demonstrate positive peer relationships, cooperation, and social confidence. From a pedagogical perspective, teachers should continue building warm, responsive, and emotionally supportive relationships with children because these interactions contribute greatly to socio-emotional development. Classroom practices that strengthen trust, communication, and emotional support may help children improve both their social competence and emotional well-being.

Table 12 presents the results of the canonical correlation analysis between peer interaction and socio-emotional skills. The findings revealed a canonical correlation of $R = 0.159$ with an $R^2 = 0.0253$, indicating a weak relationship between the two sets of variables. The computed value of $F(6, 472) = 1.066$ with $p = .382$ shows that the relationship is not statistically significant at the 0.05 level. Therefore, the null hypothesis stating that the participants' peer interaction is not significantly associated with their socio-emotional skills cannot be rejected. This indicates that peer interaction does not contribute significantly to socio-emotional skills among the kindergartners in this study. The R^2 value further means that only about 2.53% of the variance in socio-emotional skills may be explained by peer interaction.

This finding implies that although peer interaction is present in the classroom, it may not be a major factor in explaining children’s socio-emotional development. Denham et al. (2020) explained that socio-emotional growth in early childhood depends more heavily on guided learning, emotional coaching, and adult support than on unstructured peer interaction alone.

The pattern of the cross-loadings indicates that the indicators of peer interaction had weak associations with the socio-emotional skills variables. Frequency of interaction obtained a cross-loading of -0.199 , while supportiveness had a very weak loading of -0.004 . On the socio-emotional skills side, relationship skills obtained the strongest loading of -0.840 , followed by self-management with 0.462 and self-awareness with 0.136 . This pattern indicates that although relationship skills appear to be more closely linked to peer interaction than the other socio-emotional dimensions, the overall multivariate relationship remains weak and statistically insignificant. The trend also suggests that peer interaction may affect specific social behaviors, particularly relationship skills, but not enough to influence socio-emotional skills as a whole.

Table 12 Canonical Correlation Analysis Between Peer Interaction and Socio-Emotional Skills

Variable	Cross loading	R	R ²	F(6, 472)	p
Peer Interaction		0.159	0.0253	1.066	.382
Frequency of Interaction	-.199				
Supportiveness	-.004				
Socio Emotional Skills					
Self Awareness	0.136				
Self Management	0.462				
Relationship Skills	-0.840				

Among the peer interaction indicators, frequency of interaction obtained the stronger loading of -0.199 compared to supportiveness at -0.004 . This indicates that how often children interact with peers may have a slightly greater connection with socio-emotional skills than supportive peer behaviors. Children who frequently engage with classmates may have more opportunities to practice communication, sharing, and cooperation. However, the weak loading suggests that frequency of interaction alone is not sufficient to produce strong socio-emotional development. This may be because frequent interaction does not always guarantee meaningful, emotionally supportive, or guided experiences.

Meanwhile, supportiveness obtained a cross-loading of only -0.004 , which indicates an almost negligible relationship with socio-emotional skills. This suggests that supportive peer behaviors, such as encouraging others or including shy classmates, may not yet have a measurable influence on socio-emotional skills among kindergartners. One possible explanation is that supportive behaviors among young children are still inconsistent and may depend more on teacher guidance than on the children’s independent actions. At the kindergarten level, children may still require adult modeling and support to translate peer interactions into deeper socio-emotional learning.

On the socio-emotional skills side, relationship skills obtained the strongest loading of -0.840 . This indicates that among the three socio-emotional dimensions, relationship skills are the most closely connected with peer interaction. Children who interact more frequently with peers may have greater opportunities to practice cooperation, conflict resolution, and teamwork. However, despite this stronger loading, the overall relationship between peer interaction and socio-emotional skills remained insignificant. This means that peer interaction alone may not be enough to shape relationship skills without the support of teachers and structured classroom experiences.

Self-management obtained a moderate loading of 0.462, while self-awareness obtained a weak loading of 0.136. These findings indicate that peer interaction has only a limited connection with children's ability to regulate emotions, reflect on their actions, and understand themselves. Internal socio-emotional skills such as self-awareness and self-management may be influenced more strongly by factors such as teacher support, family environment, emotional coaching, and classroom structure. Since these abilities involve self-reflection and emotional control, they may not develop directly through peer interaction alone.

Altogether, the findings show that peer interaction does not have a significant association with socio-emotional skills among the kindergartners. Although peer interaction may provide opportunities for communication, cooperation, and relationship-building, it appears to function more as a supplementary factor rather than a primary influence on socio-emotional development. From a pedagogical perspective, teachers should continue providing guided social-emotional learning activities, structured peer interactions, and emotional coaching to help children develop stronger socio-emotional skills. This means that teacher support remains essential in helping children transform peer experiences into meaningful opportunities for emotional and social growth.

CONCLUSIONS

This study highlights the importance of creating emotionally supportive and responsive classroom environments in early childhood education. The findings emphasize that socio-emotional development is strengthened when children experience trust, security, and open communication with their teachers. In practical terms, kindergarten teachers need to be equipped not only with instructional skills but also with the ability to provide emotional support, reassurance, and consistent positive interactions. Classroom routines that promote emotional safety, active listening, and responsive communication may help children become more confident, cooperative, and socially engaged. These findings also reinforce the need for schools to integrate structured social-emotional learning activities that strengthen self-awareness, self-management, and relationship skills among young learners.

The results further confirm Bowlby's Attachment Theory, which explains that children develop stronger emotional regulation, confidence, and social competence when they experience stable and supportive relationships with significant adults. The study supports the idea that teachers can function as important attachment figures in the classroom, especially during the kindergarten years when children are still highly dependent on adult guidance and reassurance. At the same time, the findings partially support Bronfenbrenner's Ecological Systems Theory. While peer interaction remains an important part of the child's microsystem, the results indicate that teacher-child relationships have a stronger and more direct influence on socio-emotional development than peer interaction alone. This means that peer interactions become more meaningful when they are guided, modeled, and supported by teachers.

Pedagogically, the study underscores the importance of professional development programs that enhance teachers' emotional availability, classroom management skills, and ability to facilitate healthy peer relationships. Schools may benefit from designing classroom practices that encourage cooperative play, emotional expression, guided reflection, and teacher-mediated peer interaction. These strategies can help children translate daily social experiences into deeper socio-emotional learning. Overall, the study contributes to a better understanding of how early childhood classrooms can become spaces that nurture emotional well-being, social competence, and readiness for future academic and interpersonal success. This study highlights the importance of creating emotionally supportive and responsive classroom environments in early childhood education. The findings emphasize that socio-emotional development is strengthened when children experience trust, security, and open communication with their teachers. In practical terms, kindergarten teachers need to be equipped not only with instructional skills but also with the ability to provide emotional support, reassurance, and consistent positive interactions. Classroom routines that promote emotional safety, active listening, and responsive communication may help children become more confident, cooperative, and socially engaged. These findings also reinforce the need for schools to integrate structured social-emotional learning activities that strengthen self-awareness, self-management, and relationship skills among young learners.

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RECOMMENDATIONS

School administrators may prioritize professional development programs focused on attachment-based teaching practices—particularly emotional responsiveness, sensitivity to children's needs, and effective communication strategies—while providing teachers with training on classroom strategies like positive reinforcement, guided emotional expression, and supportive management, and establishing school-based programs and policies that promote emotionally safe learning environments for kindergarten learners. Kindergarten teachers may intentionally foster secure attachment relationships through consistent emotional support, reassurance, and encouragement; engage in meaningful, responsive communication to build trust, confidence, and emotional security; and guide peer interactions via cooperative activities, role-playing, and teacher-mediated social experiences to support socio-emotional skills development. Parents may provide consistent, responsive caregiving at home to strengthen children's emotional security and confidence, support emotional expression, behavior management, and positive social interactions through regular guidance and open communication, and collaborate regularly with teachers to ensure consistency between home and school in promoting socio-emotional development. Future researchers may include larger samples and additional variables to better understand attachment-socio-emotional pathways, conduct longitudinal studies to track how secure attachment and skills develop over time, and explore mediating variables such as classroom climate, parenting style, and teacher practices to explain the non-significant relationship between peer interaction and socio-emotional skills.

Compliance with Ethical Standards

The study religiously adhered the ethical standards. Approval was then granted by the ethics committees, and informed consent was obtained from the participants. The participants' right for privacy was secured and protected under the Data Privacy Act of 2012, and the study followed the key ethical principles of respect, beneficence, and justice, as outlined in the Belmont Report. For the analysis of the data, the study also used descriptive statistics to show the summary of students' skills and linear regression to examine the factors which affects the writing quality of the participants.

ACKNOWLEDGMENTS

The journey of completing this paper will never be successful without the supervision of God and the help of supportive people to whom the researchers are greatly indebted. It is with a genuine heart that the researchers would like to express their utmost gratitude to the following individuals who patiently extended their undying love just to secure the success of this study:

Father Almighty, for his constant guidance and heavenly wisdom bestowed upon the researchers and the people who helped them on this study. Despite the limited resources and challenges encountered along the way, God never failed to provide.

To the members of the panel who deliberately check and provided helpful insights to polish this paper. Their passion in guiding the researchers and dedication in providing quality work is beyond appreciated.

Lastly, the entire researchers' family, friends, and everyone who showed their support financially and in prayers. The researchers are forever grateful for the help.

REFERENCES

1. Ainsworth, M. D. S., & Bowlby, J. (2024). Caregiver sensitivity and socio-emotional development.
2. Arace, A., Prino, L. E., & Scarzello, D. (2021). Emotional competence of early childhood educators and child socio-emotional wellbeing. *International Journal of Environmental Research and Public Health*, 18(14), 7633. <https://doi.org/10.3390/ijerph18147633>
3. Bendel-Stenzel, L. C., An, D., & Kochanska, G. (2022). Infants' attachment security and children's self-regulation within and outside the parent-child relationship at kindergarten age: Distinct paths for children varying in anger proneness. *Journal of Experimental Child Psychology*, 221, 105433. <https://doi.org/10.1016/j.jecp.2022.105433>
4. Bowlby, J. (1969). *Attachment and loss: Vol. 1. Attachment*. New York: Basic Books
5. Bronfenbrenner, U. (1979). *The ecology of human development: Experiments by nature and design*. Cambridge, MA: Harvard University Press.
6. CASEL. (2022). What is SEL? Collaborative for Academic, Social, and Emotional Learning. <https://casel.org/what-is-sel/Educational> *Psychology*, 45(3), 257–274. <https://doi.org/10.1080/01443410.2025.2466652>
7. CASEL framework (2025). <https://casel.org/fundamentals-of-sel/what-is-the-casel-framework/>
8. CASEL (2020) framework, The role of socio-emotional security on school engagement and academic achievement: a systematic literature review <https://www.frontiersin.org/journals/education/articles/10.3389/feduc.2024.14372> 97/full
9. Creswell, J. W., & Creswell, J. D. (2022). *Research design: Qualitative, quantitative, and mixed methods approaches* (6th ed.). SAGE.
10. Denham, (2020). Observing preschoolers' social-emotional behavior: Structure, foundations, and prediction of early school success. *Journal of Genetic Psychology*, 181(2–3), 157–176.
11. Dumont, (2025) Attachment in autistic children as measured with the strange situation procedure: a systematic review and a meta-analysis, *Attachment & Human Development*, 27:4, 634-656, DOI: 10.1080/14616734.2025.2541232
12. Fan, Z. (2022). A study on the impact of the 'Double Reduction' policy on the parenting styles and anxiety levels of parents of Grade 5-6 students in Guangdong, China [Master's thesis]. University of Oxford.
13. Garcia, F. (2024). Parental socialization based on warmth and strictness among adolescents and young adults: Which parenting dimension is related to greater adjustment? *Sage Open*, 14(4), 1- 17. <https://doi.org/10.1177/21582440241289684>
14. Goleman, D. (1995). *Emotional intelligence*. Bantam Books, Inc
15. Gebre, Z. A. (2025). The impact of teacher socio-emotional competence on student engagement: A meta-analysis. *Frontiers in Psychology*, 16, 1526371. <https://doi.org/10.3389/fpsyg.2025.1526371>
16. Guo, J. (2023). The roles of social-emotional skills in students' academic and life success: A multi-informant and multicohort perspective. *Journal of Personality and Social Psychology*, 124, 1079–1110. <https://doi.org/10.1037/pspp0000426>
17. Martin, C. (2021) Supporting young children exposed to potentially traumatic events: Implications for early care and education policy. *Policy Insights From the Behavioral and Brain Sciences*, 8(2), 119–126. <https://doi.org/10.1177/23727322211033880>
18. Murray-2025 Supporting Young Children's Social-Emotional Wellbeing in Early Childhood Education and Care: Perspectives from the Sector *Education Sciences*, 15(5), 569.
19. Pianta 2012 *Teacher-Student Relationships and Engagement: Conceptualizing, Measuring, and Improving the Capacity of Classroom Interactions* <https://psycnet.apa.org/record/2012-11872-017>
20. Rana 2022 *Developing Socio-Emotional Domain of Kindergarten Pupils Using Aesthetic/Creative Activities* <https://ejournals.ph/function/author.php?id=31321>

21. Santos, A 2023. "Social and Emotional Competencies as Predictors of Student Engagement in Youth: A Cross-Cultural Multilevel Study." *Studies in Higher Education* 48 (1): 1–19. <https://doi.org/10.1080/03075079.2022.2099370>
22. Tussey 2021 Supporting Social and Emotional Development Through Literacy Education DOI: 10.4018/978-1-7998-7464-5.ch01
23. Wang 2025 The Relation Between Family Intimacy and Preschoolers' Social-Emotional Competence: The Mediating Role of Psychological Resilience and the Moderating Role of Family-Preschool Interaction. *Behav Sci (Basel)*. 2025 Nov 17;15(11):1564. doi: 10.3390/bs15111564. PMID: 41301365; PMCID: PMC12649113.
24. Warren 2023 Digital and interactive technologies for children's mental health and socio emotional wellbeing: Exploring potential, gaps, and design opportunities
25. Zhang L, 2024 The role of social-emotional competencies in interpersonal relationships: a structural equation modeling approach. *Front Psychol*. 2024 Oct 3;15:1360467. doi: 10.3389/fpsyg.2024.1360467. PMID: 39421841; PMCID: PMC11484989.