



THE RELATIONSHIP BETWEEN GADGET USE AND SOCIAL INTERACTION SKILLS OF CHILDREN AGED 5–6 YEARS AT TPP CAHAYA INSAN CENDEKIA KINDERGARTEN, BANDAR LAMPUNG

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Abstract

This study aims to determine the relationship between gadget use and social interaction skills of children aged 5–6 years. This research uses a quantitative approach with a correlational design. The sample consisted of 62 children from three classes at TK TPP Cahaya Insan Cendekia. Data were collected using a Likert-scale questionnaire and supported by observation. The results showed that gadget use was in the low category (81%), while children's social interaction skills were in the high category (90%). The Pearson Product Moment correlation test showed a correlation coefficient of -0.302 with a significance value of 0.017 ($p < 0.05$), indicating a significant relationship between gadget use and children's social interaction skills. Findings of the study confirm that there is a significant negative relationship between the two variables. The study concludes that the relationship is negative, meaning that higher gadget use tends to reduce children's social interaction skills. This indicates that increased exposure to gadgets may contribute to lower social interaction abilities in early childhood. Therefore, proper supervision of gadget use is necessary to support children's social development. Parental and educational control is essential to ensure balanced use of digital technology and optimal social development in children.

Keywords: *Gadget Use, Social Interaction, Early Childhood.*

INTRODUCTION

Technological development that is increasingly rapid has brought significant changes in various aspects of life, including early childhood development. A gadget is a small electronic device with specific functions designed to facilitate human activities through digital technology (Shelly, 2011). Along with this development, gadget use is no longer limited to adults but has also become part of children's daily activities. Gadgets are used as a means of entertainment, communication, and interactive learning media that can attract children's interest through audio-visual content (Wulandari & Kurniasih, 2023). In addition, the use of digital media can also provide cognitive stimulation through the presentation of engaging and interactive information (Hijriyani et al., 2020). This

development shows a shift in children's activity patterns, which are increasingly integrated with digital technology.

Children aged 5–6 years are in an important stage of development, particularly in social skills that play a crucial role in building relationships with their environment. At this stage, children actively explore the world through interaction with peers and adults. However, rapid technological development has made gadgets part of children's daily lives. Excessive use of gadgets has the potential to reduce children's involvement in direct social activities. This condition may limit children's opportunities to communicate, cooperate, share, and build social relationships with their peers. Therefore, it is necessary to examine the relationship between gadget use and the social interaction skills of children aged 5–6 years in order to understand the impact of technological development on early childhood social development (Tristya et al., 2024). Thus, the main issue that arises is the decreasing intensity of children's social interaction in daily life.

The advancement of the digital era has made gadgets an essential part of children's daily lives. Early childhood children appear to be more skilled in using gadgets than adults. This condition affects children's lives, particularly their ability to interact with others at an early age. Observations conducted by the researcher at TPP Cahaya Insan Cendekia Kindergarten show differences in the social interaction skills of children aged 5–6 years. Most children are able to communicate actively, cooperate, and help each other in completing group tasks, such as building towers from blocks. Interactions among children are visible through active conversations and collaborative play activities. However, these interaction patterns are not evenly distributed among all children.

Some children, however, show different behavior, such as preferring to play alone, reducing interaction with peers, and being less responsive to their surroundings. These children tend to focus more on individual play and are often hesitant to participate in group activities, requiring teacher assistance to encourage them to engage and interact with peers. The classroom teacher also reported that several students have a habit of using electronic devices for extended periods at home. This fact serves as a basis for examining the relationship between gadget use and children's social skills. This condition indicates a tendency toward a relationship between the intensity of gadget use and low social interaction among children.

Interview results with several parents at TPP Cahaya Insan Cendekia Kindergarten in Bandar Lampung indicate that children spend more time at home. This situation should provide an opportunity for parents to build communication and interaction with their children. However, not all parents utilize this time effectively. Some parents use gadgets more frequently than interacting with their children and also experience difficulties in managing their time between household responsibilities and supervising their children. In fact, some early childhood children already own personal mobile phones. This condition shows the importance of parental supervision and control over children's gadget use so that they can still engage in direct social activities such as playing with

peers, sharing toys, and interacting with their environment. This highlights the important role of parents in controlling children's gadget use at home.

Social skills are an important aspect of early childhood development because they help children interact, communicate, cooperate, and adapt to their surrounding environment. Good social development enables children to build positive relationships with peers and adults and gain various social experiences that support their developmental process. Conversely, children with low social skills tend to experience difficulties in interaction, lack self-confidence, and struggle to express emotions and opinions. Therefore, social skills need to be developed from an early age so that children can adapt to their social environment and achieve optimal development (Madinah et al., 2025).

However, uncontrolled gadget use has the potential to affect children's social development. Children aged 5–6 years are in an important stage of social development characterized by the ability to communicate, cooperate, show empathy, and exercise self-control in various social situations. These social interaction skills are essential to support children's readiness for the next level of education and to build healthy social relationships (Permendiknas No. 137, 2014). Social development at this age is strongly influenced by direct interaction experiences with the surrounding environment, especially through play activities and communication with peers (Anam, 2025).

Excessive gadget use can reduce children's opportunities to interact directly with their environment. Ideal social interaction in early childhood should occur through two-way communication and play activities with peers and the surrounding environment (Pitayanti et al., 2024). High intensity of gadget use tends to make children engage more in individual activities, which can hinder the development of their social skills. This is in line with Iswidharmanjaya's opinion that excessive gadget use can reduce the quality of children's social interaction with their environment (Iswidharmanjaya, 2014). Thus, gadget use is an important factor to be examined in early childhood social development.

Several previous studies have shown a relationship between gadget use and children's social interaction skills. Research conducted by Putra and Anggraini indicates that the higher the intensity of gadget use, the lower the children's social interaction skills (Putra et al., 2023). In addition, Kurniawati also states that the balance between gadget use and social activities is an important factor in early childhood social-emotional development (Kurniawati et al., 2024). These findings are also supported by Handayani's research, which shows that uncontrolled gadget use can lead to a decline in children's social interaction (Handayani et al., 2022).

Based on this background, this study aims to determine the relationship between gadget use and the social interaction skills of children aged 5–6 years. This research is expected to provide empirical evidence regarding the extent to which gadget use is related to early childhood social development.

METHODS

This study employed a quantitative approach with a correlational research design aimed at determining the relationship between gadget use and the social interaction skills of children aged 5–6 years. This approach was used to analyze the extent to which the independent variable is related to the dependent variable statistically. The study was conducted at TPP Cahaya Insan Cendekia Kindergarten, involving children aged 5–6 years as research subjects.

The sample of this study consisted of 62 children from three different classes. The sampling technique was adjusted to the existing population conditions, where all children who met the research criteria were included as respondents. This sample was expected to represent the condition of gadget use and the social interaction skills of children in the institution.

Data collection techniques in this study included questionnaires using a Likert scale to measure both variables, namely gadget use and children's social interaction skills. In addition, direct observation was also conducted during classroom learning activities as supporting data to strengthen the research findings. Both techniques were used to ensure that the data obtained were more accurate and comprehensive.

Data analysis was carried out using the Pearson Product Moment correlation test to determine the relationship between the two research variables. Prior to hypothesis testing, several prerequisite tests were conducted, including tests of normality, homogeneity, and linearity. These tests were carried out to ensure that the data met statistical assumptions so that the research results could be scientifically justified.

RESULTS AND DISCUSSION

The results of the study show that gadget use among children aged 5–6 years falls into the low category with a percentage of 81%. This indicates that the intensity of gadget use among children is relatively controlled. Meanwhile, the children's social interaction skills are categorized as high with a percentage of 90%, indicating that most children are able to communicate, cooperate, show empathy, and exercise self-control in social situations. The Pearson Product Moment correlation test results show a correlation coefficient of -0.302 with a significance value of 0.017 ($p < 0.05$). These findings indicate that there is a significant relationship between gadget use and children's social interaction skills. The negative direction of the correlation suggests that the higher the level of gadget use, the lower the children's social interaction skills tend to be. Thus, these results confirm an inverse relationship between the studied variables.

These findings are consistent with previous studies stating that excessive gadget use can reduce children's opportunities for direct social interaction with their environment (Putra et al., 2023). Optimal social interaction in early childhood requires active involvement in two-way communication, cooperation, and direct social experiences, which cannot be fully replaced by digital device-based interaction (Pitayanti et al., 2024). In addition, Kurniawati emphasizes that the balance between gadget

use and social activities is an important factor in supporting children's social-emotional development (Kurniawati et al., 2024). These findings strengthen the argument that gadget use should be controlled so it does not hinder children's social interaction.

Furthermore, the low level of gadget use among most children in this study indicates the role of parental and school supervision in controlling digital device usage. Limiting children's screen time allows them greater opportunities to engage in peer play, communicate directly, and learn social rules in their environment. Direct play activities play an important role in helping children develop cooperation, sharing, conflict resolution, and empathy. Thus, parental supervision becomes an essential factor in maintaining the balance of children's social development.

The relatively low correlation coefficient indicates that gadget use is not the only factor influencing children's social interaction skills. Other factors such as family environment, parenting style, and opportunities to interact with peers also play important roles (Handayani et al., 2022). The high level of social interaction skills also reflects the positive contribution of the school environment through group play activities, simple discussions, and collaborative learning. A conducive school environment has been shown to support optimal social development in children.

Social interaction skills are a crucial aspect of development in children aged 5–6 years as they help children build positive relationships with their surroundings. Social skills include empathy, tolerance, cooperation, and adaptive behavior in various social situations. Children with strong social skills tend to interact more easily with peers, work well in groups, respect differences, and adapt to new environments. In contrast, low social skills may lead to difficulties in adaptation, limited cooperation, and reduced concern for others. Therefore, the development of social skills is an essential component of early childhood education.

The negative relationship between gadget use and children's social interaction skills can be explained by the fact that excessive gadget use tends to make children more focused on individual activities. Children interact more with screens than with their surrounding social environment. This condition reduces opportunities to practice two-way communication, understand emotional expressions, and develop cooperation skills. At the age of 5–6 years, real-life interaction is essential for optimal social development. Therefore, the intensity of gadget use must be a primary concern in child development guidance.

In addition, excessive gadget use may reduce children's sensitivity to their surroundings. Children may become less attentive during interactions as their focus shifts to digital content. In some cases, children may also show impatience when asked to stop using gadgets. However, gadget use is not always negative if used wisely and appropriately, as it can serve as an interactive learning medium that supports language, cognitive, and creativity development when used within appropriate limits. Thus, what needs to be controlled is the pattern and intensity of usage.

Observation results also show that most children are able to interact actively with peers, including communicating, cooperating, showing empathy, and self-control. However, some children tend to be passive and require teacher guidance to participate in group activities. This finding supports the quantitative results indicating that children's social interaction skills are generally high, although individual variations still exist.

Children's social interaction skills are also influenced by family factors, which serve as the first social environment for children. Children who frequently communicate with parents and receive adequate attention tend to have better social skills. Appropriate parenting helps children develop the ability to express opinions and understand others. In addition, the school environment and peers also play an important role in providing direct social experiences. The combination of these environments significantly determines children's social development.

Therefore, gadget use in early childhood should receive attention from both parents and teachers. Parents need to establish rules regarding gadget use, such as time limits and age-appropriate content selection, as well as accompany children during digital device use. Teachers also play a role in educating parents about the importance of balancing technology use with social interaction. This balance is essential to ensure optimal child development.

This study has limitations because it was conducted in only one institution with a relatively small sample size, so the findings cannot be widely generalized. In addition, the study only focused on two variables without deeply considering other factors such as parenting styles and family environment. Therefore, future research is recommended to expand variables and research scope.

Overall, the results of the study indicate that there is a relationship between gadget use and the social interaction skills of children aged 5–6 years. The higher the use of gadgets, the lower the children's social interaction skills tend to be. Thus, gadget use needs to be controlled so that children's social development can take place optimally through direct interaction with their surrounding environment.

CONCLUSION

This study shows that there is a significant relationship between gadget use and the social interaction skills of children aged 5–6 years. The relationship is negative with a low level of correlation, meaning that the higher the intensity of gadget use, the lower the children's social interaction skills tend to be. Thus, these findings confirm the existence of an inverse relationship pattern between the two research variables. However, the low strength of the relationship indicates that gadget use is not the only factor influencing children's social interaction skills, as other factors such as family environment, parenting styles, and opportunities for direct social interaction also play important roles. This suggests that children's social development is multifactorial in nature.

These findings contribute to the enrichment of studies on the impact of digital technology on early childhood social development, particularly in the context of the increasing use of gadgets among

children. The main contribution of this study is providing empirical evidence of a negative relationship between gadget use and the social interaction skills of early childhood children. The practical implications of this study emphasize the importance of supervision, limiting screen time, and selecting age-appropriate content by parents and educators. This serves as a preventive effort to maintain a balance between technology use and children's social development. In addition, children should be given more opportunities to engage in direct social activities, such as playing with peers, in order to support the development of communication, cooperation, empathy, and self-control in an optimal way. Thus, direct social interaction remains a key factor in optimizing the social development of early childhood children.

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