

THE RELATIONSHIP BETWEEN GADGET USE AND SOCIAL DEVELOPMENT EMOTIONAL BEHAVIOR OF SCHOOL-AGE CHILDREN AT SDN 3 MINDAHAN

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Abstract

The increasing use of gadgets among school-aged children raises concerns about their social-emotional development, particularly regarding their ability to interact socially, manage emotions, and behave prosocially. This study aims to analyze the relationship between gadget use and the social-emotional development of school-aged children at SDN 3 Mindahan, Batealit District, Jepara Regency. This study used a quantitative approach with a cross-sectional design. Sampling was conducted using a total sampling technique, so that the entire population of 119 students was used as the research sample. Data collection was carried out using a gadget use questionnaire and the Strengths and Difficulties Questionnaire (SDQ). Data analysis included univariate and bivariate analysis using the Spearman's Rho test. The results showed that 48% of respondents had low gadget use, 43% had moderate use, and 9% had high use. Most children had normal social-emotional development (90%). There was a significant relationship between gadget use and social-emotional development on the difficulty scale ($p=0.000$; $r=0.559$) with a positive direction and moderate strength. Furthermore, there was a significant negative correlation between gadget use and social-emotional development on the strength scale ($p=0.010$; $r=-0.256$). The study concluded that higher gadget use led to higher levels of social-emotional difficulties and lower prosocial behavior in school-aged children.

Keywords: Child Development, Emotional Development, Gadget Use, School-Age Children, Social Development

INTRODUCTION

Children's social and emotional development is a learning process that enables them to adapt, manage, and fully express both positive and negative emotions, and understand their feelings when interacting with parents, family, and peers in everyday life (Firmansyah, 2021). Disorders in this aspect can manifest in various forms, such as difficulty managing emotions, decreased ability to interact with peers, and aggressive behavior caused by home environment conditions and academic pressure (Astuti et al., 2024). Based on data from the 2018 Basic Health Research (Riskesdas), 9.8% of children in Indonesia experience emotional mental disorders, a significant increase compared to 6.1% in 2013. Data from the World Health Organization in 2019 showed that one in eight people, or 970 million people worldwide, experience emotional mental disorders (Astuti et al., 2024; Dauhan et al., 2025). The National Population and Family Planning Agency (BKKBN) also highlighted that the number of adolescents in Indonesia experiencing mental and emotional disorders continues to increase every year (ANTARA, 2022).

Gadget use is one of the main factors that disrupt children's social and emotional development, along with family factors and peer influence (Aurora et al., 2024). Agita Herliani and Atika (2022) suggest that gadget use can disrupt children's social and emotional development, while Prayito et al. (2024) state that excessive gadget use can lead to addiction, leading to children being lazy about daily activities, which affects physical, motor, psychological, social, and emotional development. According to the Central Statistics Agency (BPS) in 2019, 48.2% of Indonesian children aged 7-17 years had accessed the internet, with 75.8% using it for social media and 74.7% for entertainment (BPS, 2021). BPS data in 2022 recorded that 38.48% of early childhood in Central Java used gadgets, higher than the national average of 33.44%,

while 33.96% were able to access the internet compared to the national average of 24.95% (Ari Sony, 2023; Erlina F. Santika, 2023).

Although gadgets provide benefits such as accelerating access to information and supporting digital learning, their use without time limits has a negative impact on children. Stevanus and Parida (2023) explain that children who use gadgets excessively without time limits tend to be indifferent to their surroundings, experience concentration problems, reduced empathy, and spend more time with gadgets than playing with peers (Stevanus & Parida, 2023; Andini et al., 2025). Data.io recorded that the duration of gadget use in Indonesia reached 6.14 hours per day in 2022 and 6.05 hours per day in 2023, making Indonesia the only country with gadget use exceeding 6 hours per day, which raises concerns about children's development, character, and social relationships (BPS, 2024; Dauhan et al., 2025). Research by Prayito et al. (2024) on 43 respondents at Santo Yosef Kindergarten Ngawi found a strong relationship between gadget use and children's social and emotional development with a calculated r of 0.746, while Dahayu Estiningtiyas et al. (2024) on 45 students aged 8-12 years in Gresik did not find a significant relationship which may be due to differences in location, sample, age, and instrument (Prayito et al., 2024; Dahayu Estiningtiyas et al., 2024; Nuraini & Wardhani, 2023). Lutfitasari et al. (2026) also emphasized that the negative impacts of gadget use are more dominant, especially in increasing the risk of delayed social development, reduced interpersonal interactions, and emotional regulation problems.

An initial survey at SDN 3 Mindahan on 8 respondents showed that 75% of children used gadgets with moderate intensity, 12.5% were in the high category, and 12.5% did not have gadgets. Social emotional development showed that 75% of children were in the normal category while 25% were in the borderline category requiring further supervision. This study aims to determine the relationship between gadget use and the social emotional development of elementary school-aged children at SDN 3 Mindahan, Batealit District, Jepara Regency, identify the description of gadget use and children's social emotional development, and analyze the relationship between the two. This study has urgency because it is relevant to current conditions where gadget use in children is increasing, provides a real picture according to the situation of the research environment, and the findings can be used as considerations for creating an environment that supports children's social emotional development (Andini et al., 2025; Prayito et al., 2024). The novelty of the study lies in the sample of school-aged children at SDN 3 Mindahan, the research location in Jepara Regency, and the instruments used to measure gadget intensity and social emotional development that are different from previous studies.

METHOD

This study is a quantitative study with a cross-sectional design used to study the relationship between risk factors (independent variables) and effect factors (dependent variables) with data collection carried out simultaneously at one time (Sugiyono, 2023; Creswell & Creswell, 2023). The cross-sectional design was chosen because this study aims to analyze the relationship between gadget use as an independent variable and children's social-emotional development as a dependent variable measured simultaneously at a specific point in time (Suryani et al., 2023; Prayito et al., 2024). Quantitative research with this approach is suitable for research on a large population with clear, observable, and measurable problems and aims to test hypotheses (Sugiyono, 2022; Green & Britton, 2024).

Population is the entire object or subject of research that has certain characteristics to be studied, while the sample is part of the population that has the same characteristics and acts as a representative of all members of the population (Suryani et al., 2023; Salsabillah et al., 2022). The population in this study was all students at SDN 3 Mindahan Kidul, Batealit District, Jepara Regency, totaling 119 students in the 2025/2026 academic year. Sampling in this study used a total sampling technique where all members of the population were used as research samples with a total of 119 students (Salsabillah et al., 2022; Sugiyono, 2023). Total sampling was chosen because the population is relatively small, allowing the entire population to be involved in the study to increase the validity and generalization of the results (Green & Britton, 2024; Andini et al., 2025). The respondent criteria in this study were children aged 6-12 years who attended SDN 3 Mindahan and parents who were willing to fill out the questionnaire.

The gadget usage instrument consists of 19 ordinal scale items (0 = never, 1 = rarely, 2 = often) that measure the duration of use and the type of children's viewing; validity testing was conducted by researchers using Pearson Product-Moment correlation on a pre-sample of $n = 30$ with the criteria of r count $> r$ table (0.339), and all 19 items met the criteria ($p < 0.05$), while the reliability test showed very good internal consistency with Cronbach's alpha = 0.897 (the "alpha if item deleted" analysis did not indicate the need for item deletion), so the instrument was declared valid and reliable for use in this study.

The instrument to measure the dependent variable (social emotional development) used the Indonesian version of the Strengths and Difficulties Questionnaire (SDQ) assessed by parents/teachers for ages 4-17 years. The SDQ consists of 25 question items categorized into two subscales: the difficulties subscale (emotional symptoms, behavioral problems, hyperactivity, and peer problems) and the strengths subscale (prosocial behavior). The SDQ questionnaire has been tested for validity and reliability by Cahyaningrum et al. (2023) with validity results showing item correlation values on the strengths aspect moving from 0.391 to 0.503 and the difficulties aspect from 0.000 to 0.530. The reliability test using Cronbach's Alpha produced a value of 0.675 for the strengths aspect and 0.705 for the difficulties aspect, indicating the SDQ instrument is reliable for research (Trisnawati, 2023; Cahyaningrum et al., 2023).

Data analysis in this study consisted of univariate and bivariate analysis. Univariate analysis was conducted to explain the characteristics of each research variable presented in the form of a frequency distribution table for the independent variable (gadget use) and the dependent variable (children's social and emotional development). Bivariate analysis was conducted to analyze the relationship between the independent and dependent variables using the Spearman Rho test with the help of SPSS based on a significance value of p -value < 0.05 (Sugiyono, 2023; Dahayu Estiningtiyas et al., 2024). The Spearman Rho test was chosen because the data is ordinal scale and to test the relationship between two variables that are not normally distributed (Suryani et al., 2023; Nuraini & Wardhani, 2023).

The research procedure began with the preparation stage, which included the preparation of a questionnaire instrument, validity and reliability testing at SDN 4 Mindahan with 35 respondents, then continued with the data collection stage by distributing questionnaires to all parents of 119 students at SDN 3 Mindahan Kidul. After the questionnaires were collected, the data were processed through editing, coding, processing, and cleaning stages before univariate and bivariate statistical analysis was carried out using SPSS. The final stage was the interpretation of the analysis results and drawing conclusions to answer the research problem formulation regarding the relationship between gadget use and the social and emotional development of school-age children (Sugiyono, 2022; Prayito et al., 2024). The entire research process was carried out in accordance with research ethics principles by obtaining consent from the respondents' parents and maintaining the confidentiality of the collected data (Andini et al., 2025; Dauhan et al., 2025).

RESULTS AND DISCUSSION

Respondent Characteristics

1. Respondent Characteristics Based on Age

Table 1. Frequency Distribution of Respondents Based on Respondent Age

Variables	Mean	Median	Standard Deviation	Min-Max
Age	9.07	9	1,725	6-12

Based on table 1 above, it can be concluded that the average age of respondents is 9 years, the median value is 9 years. Meanwhile, the youngest respondent's age is 6 years and the oldest is 12 years.

2. Respondent Characteristics Based on Gender

Table 2. Frequency Distribution of Respondents Based on Respondent Gender

Gender	frequency	%
Man	48	48
Woman	52	52
Total	100	100

Based on table 2. above, it shows that the gender of the male respondents is 48 respondents (48%), and the gender of the female respondents is 52 respondents (52%).

3. Respondent Characteristics Based on Class

Table 3. Frequency Distribution of Respondents Based on Respondent Gender

Variables	frequency	%
Class 1	14	14
Grade 2	16	16
Grade 3	18	18
Grade 4	16	16
Grade 5	15	15
Grade 6	21	21
Total	100	100

Based on table 3. above, it shows that the distribution of respondents by class shows that the majority are from class 6, as many as 21 students (21%), while the least are from class 1, as many as 14 students (14%).

Univariate Analysis

1. Gadget Use

Table 4. Characteristics of Gadget Usage

Gadget Use	frequency	%
Low	48	48
Currently	43	43
Tall	9	9
Total	100	100

Based on table 4. above, it states that 48 respondents (48%) use gadgets with low frequency, 43 respondents (43%) use gadgets with medium frequency, while 9 respondents (9%) use gadgets with high frequency.

2. Social Emotional Development

Table 5. Characteristics of Social Emotional Development (Difficulties)

Social Emotional Development	frequency	%
Normal	90	90
Borderline	5	5
Abnormal	5	5
Total	100	100

Based on table 5 above, it shows that social emotional development (difficulties) in school-age children with the normal category was 90 respondents (90%), the borderline category was 5 respondents (5%), while the abnormal category was 5 respondents (5%).

Table 6. Characteristics of Social Emotional Development (Strengths Scale)

Social Emotional Development	Frequency	%
Normal	90	90
Borderline	5	5
Abnormal	5	5
Total	100	100

Based on table 6 above, it shows that the social emotional development (strength) in school-age children with the normal category is 90 respondents (90%), the borderline category is 5 respondents (5%), while the abnormal category is 5 respondents (5%).

Bivariate Analysis

Table 7. Relationship between Gadget Use and Social Emotional Development (Difficulty Scale) of School-Age Children at SDN 3 Mindahan, Batealit District, Jepara Regency

Gadget Use	Social Emotional Development (Difficulty Scale)								P value
	Normal		Borderline		Abnormal		Total		
	f	%	f	%	f	%	f	%	
Low	48	100	0	0	0	0	48	100	0.000
Currently	38	88.4	3	7.0	2	4.7	43	100	
Tall	4	44.4	2	22.2	3	33.3	9	100	
Total	90	90	5	5	5	5	100	100	

Spearman's Rho statistical test value $P=0.000$ ($P<0.05$)

Correlation Coefficient Value = 0.559**

Table 7 shows that the use of gadgets with the development of social emotional children in 100 respondents showed that the results of low gadget use with normal social emotional development (difficulty scale) were 48 respondents, low gadget use with Borderline social emotional development (difficulty scale) 0 respondents, low gadget use with abnormal social emotional development (difficulty scale) 0 respondents. Moderate gadget use with normal social emotional development (difficulty scale) was 38 respondents, moderate gadget use with Borderline social emotional development (difficulty scale) was 3 respondents, moderate gadget use with abnormal social emotional development (difficulty scale) was 2 respondents. High gadget use with normal social emotional development (difficulty scale) was 4 respondents, high gadget use with borderline social emotional development (difficulty scale) was 2 respondents, high gadget use with abnormal social emotional development (difficulty scale) was 3 respondents.

Based on the Spearman rho statistical test, the significance value of the results was $P = 0.000$ ($P < 0.05$), which indicates that there is a significant relationship between the variable of gadget use and the social emotional development (difficulty scale) of school-age children. The Correlation Coefficient value is 0.559, indicating that the relationship is positive with moderate strength, which means that the higher the use of gadgets, the higher the level of social emotional development (difficulty scale) of school-age children. Thus, it can be concluded that there is a significant and unidirectional relationship between the two variables.

Table 8. Relationship between Gadget Use and Social-Emotional Development (Strength Scale) of School-Age Children at SDN 3 Mindahan, Batealit District, Jepara Regency

School Age Children at SDN 5 Mirdanahan, Buntok District, Sepura Regency									
Gadget Use	Social Emotional Development (Strengths Scale)								P value
	Normal		Borderline		Abnormal		Total		
	f	%	f	%	f	%	f	%	
Low	48	100	0	0	0	0	48	100	0.010
Currently	37	86	4	9.3	2	4.7	43	100	
Tall	5	55.6	1	11.1	3	33.3	9	100	
Total	90	90	5	5	5	5	100	100	

Spearman's Rho statistical test value $P=0.010$ ($P<0.05$)

Correlation Coefficient Value = - 0.256**

Table 8 shows that the use of gadgets with the development of social emotional children in 100 respondents showed that the results of low gadget use with normal social emotional development (strength scale) were 48 respondents, low gadget use with borderline social emotional development (strength scale) 0 respondents, low gadget use with abnormal social emotional development (strength scale) 0 respondents. Moderate gadget use with normal social emotional development (strength scale) was 37 respondents, moderate gadget use with borderline social emotional development (strength scale) was 4 respondents, moderate gadget use with abnormal social emotional development (strength scale) was 2 respondents. High gadget use with normal social emotional development (strength scale) was 5 respondents, high gadget use with borderline social emotional development (strength scale) was 1 respondent, high gadget use with abnormal social emotional development (strength scale) was 3 respondents.

Based on the Spearman rho statistical test, a significance value of $P = 0.010$ ($P < 0.05$) was obtained, which indicates that there is a significant relationship between the variable of gadget use and the social emotional development (strength scale) of school-age children. The Correlation Coefficient value is -0.256 , indicating that the relationship is negative with low strength, which means that the higher the use of gadgets, the lower the level of social emotional development (strength scale) of school-age children. Thus, it can be concluded that there is a significant but opposite relationship between the two variables.

DISCUSSOR

Univariate Analysis

1. Gadget Usage

Based on table 4, it is known that the majority of respondents have a frequency of gadget use in the low category, as many as 48 respondents (48%), while 43 respondents (43%) have a frequency of gadget use in the medium category, and only 9 respondents (9%) use gadgets with a high frequency. These results indicate that the majority of elementary school students still use gadgets in the low to moderate category, which means that gadget use in children is still relatively controlled.

These findings align with the Indonesian Pediatrician Association (IDAI)'s recommendations regarding appropriate gadget usage duration for children over 6 years old, which states that children can use gadgets more flexibly, but must be supervised by parents. Flexible here doesn't mean children are free to use gadgets; rather, parents need to regulate the duration, type of viewing, and time of use to avoid disrupting their primary activities such as studying, socializing, and resting. Based on this theory, the study's findings suggest that most school-age children still use gadgets within reasonable limits.

The results of this study are also in line with Prayito et al. (2024) In preschool-age children, the majority demonstrated low to moderate gadget use and good social-emotional development. Although the study was conducted at different ages, these findings support the author's research that controlled gadget use does not disrupt children's social-emotional development.

Besides that Nurrahmah et al. (2024) They also revealed that moderate gadget use is still considered safe when done under parental supervision, as it can aid children's learning and social communication. This suggests that controlled gadget use can actually help children utilize technology positively, particularly for learning and enhancing creativity.

Conversely, children in the high category are likely to have freer access to gadget use. According to Nuraini & Wardhani (2023b) Excessive use of gadgets can hinder children's social aspects, such as children having difficulty socializing with friends and family members, and children tend to experience a decline in their ability to communicate, which has an impact on children, for example children have difficulty conveying feelings or understanding messages from their surroundings.

A similar thing was also conveyed by Lucky et al. (2025) which revealed that excessive gadget use not only impacts social aspects but also reduces children's focus and motivation to learn. Children with excessive gadget use tend to experience decreased focus and motivation to learn and disrupt their social and emotional development.

Based on the survey results of respondents' answers to the gadget usage questionnaire, the question with the highest frequency of responses was "children use gadgets for more than 1 hour per day." This indicates that although most children fall into the low to moderate gadget usage category, there is a tendency for some children to exceed the recommended gadget usage limits.

Meanwhile, the question that had the least number of answers was "My child doesn't do his homework because he plays with gadgets." This indicates that most children still demonstrate responsibility for their academic activities. These findings demonstrate that gadget use remains under control. Even with prolonged use, children are able to balance playtime with their study obligations.

Although gadget use among elementary school-aged children at the study site showed that most children were still classified as low to moderate and within safe limits, it is important for parents and

educators to monitor their children's gadget use time to minimize the potential negative impacts of gadget use.

2. Development Social Emotional

Table 5 shows that social emotional development (Difficulties) in school-age children with the normal category was 90 respondents (90%), the borderline category was 5 respondents (5%), while for the abnormal category was 5 respondents (5%). These results indicate that some respondents showed a normal category of social emotional development (difficulty scale).

In line with this, Table 6 also shows similar results, indicating that some respondents also demonstrated normal social-emotional development (Strength Scale). This finding indicates that the majority of school-age children in this study have good social-emotional abilities and do not exhibit any impairments, either in terms of emotional symptoms, peer relationship problems, behavioral problems, hyperactivity, and prosocial behavior.

The child's social emotional development itself is a learning process, where the child learns to understand, manage feelings and express emotions completely, both positive and negative emotions. (Firmansyah, 2021). As the social emotional development of children includes several important components such as self-awareness, self-management, social awareness, social relationship skills, and responsible decision-making. If these components develop in balance, children will be able to manage their emotions, interact well with their environment, and develop positive prosocial values.

Based on the distribution of each item on the social-emotional development questions (difficulty scale), the question most frequently answered "correctly" was "has one or more good friends." This statement falls under the category of peer problems, but this item is a positive one, so the results indicate that the child has good social development, such as being sociable. This indicates that the child has improved social skills in the context of friendships according to their developmental stage.

Conversely, the least frequently answered items were "Constantly restless or squirming" and "Stealing from home, school, or other places." Both of these items fall under the hyperactivity and behavioral problems category, so the low frequency of responses indicates that only a small proportion of children experience hyperactivity and behavioral problems. This indicates that the majority of children are able to adapt and control their behavior according to school rules.

Meanwhile, for the results of the distribution of questions on social emotional development for each item in the (strength scale), the questions that were most often answered "correctly" were "If they have toys, fun, or pencils, children are willing to share them with other children" and "Be kind to younger children." This shows that children are able to get through age-appropriate prosocial behavior.

In line with this, Erik Erikson's psychosocial theory explains that at school age, children are in the industry vs. inferiority phase (6-12 years), where children begin to develop a focus on academics and social skills. Children who grow up with positive support from family and teachers tend to be able to pass through this phase well, so that children grow into individuals who are confident, independent, and able to socialize well. The presence of hyperactive behavior and behavioral problems in a small number of children is still considered normal, because it is a process of social development and learning self-control. The results of this study show that most children are in the normal category, indicating that they have succeeded in developing social emotional abilities according to the stages of development according to Erik Erikson.

The results of this study are also in line with research Firmansyah (2021) which states that social and emotional development is a crucial aspect in shaping a child's character and personality. Teachers and parents play a significant role in optimizing the potential for positive social and emotional development. This statement supports research findings that the majority of children have normal social and emotional development, suggesting that positive social and emotional development is likely due to the role of a supportive environment, although this was not directly measured in this study.

Although the results of this study indicate that most children are within the normal range, there are several aspects that require vigilance, particularly those exhibiting symptoms of hyperactivity and

behavioral problems. These conditions require attention from families, teachers, and the social environment to ensure optimal development of children, both in terms of strengths and in overcoming social-emotional difficulties.

Bivariate Analysis

1. The Relationship Between Gadget Use and the Social and Emotional Development of School-Age Children

Based on the results of the bivariate analysis with the Spearman rho statistical test in tables 7 and 8, two main results were obtained which illustrate the relationship between gadget use and the social emotional development of school-age children.

The first result that has been described in table 7 shows a significant relationship with a positive direction and moderate strength between the variable of gadget use and the social emotional development (difficulty scale) of school-age children, with a significance value of $P = 0.000$ ($P < 0.05$), and the Correlation Coefficient Value is 0.559. Which means that the higher the intensity of gadget use, the higher the level of social emotional development (difficulty scale) in school-age children.

The results of this study are in line with research conducted Anggraini et al. (2025) entitled "The Relationship Between Gadget Use and Emotional Development in School-Age Children at SDN 01 Sambiroto, Semarang City" which shows a significant relationship between gadget use and children's emotional development ($p=0.000$) and ($r=0.747$). The strong and positive correlation value indicates that the worse the gadget use, the more abnormal the child's emotional development level. The study also explains that children who use gadgets excessively will tend to show emotional symptoms such as anxiety, irritability and tend to withdraw from social environments.

Besides that, Lucky et al. (2025) also revealed that excessive gadget use not only impacts social aspects but also reduces children's focus and motivation to learn. Children with excessive gadget use tend to experience decreased focus and motivation to learn and disrupt their social and emotional development.

Rahmawati et al. (2020) also stated the same thing about the Relationship of Gadget Use to the Social Emotional Development of Children Aged 5-6 Years in the 4.0 Era, which found that there is a relationship between gadget use and social emotional development proven by prerequisite tests, namely the normality test, linearity test and heteroscedasticity test and using the hypothesis. With a significant value of $0.013 < 0.05$, it is stated that H_0 is rejected and H_a is accepted. The study explains that the use of gadgets for more than 2 hours per day is at risk of increasing behavioral disorders, decreasing focus, and causing a decrease in the ability to adapt.

Meanwhile, for the second result listed in table 8, a significance value of $P = 0.010$ ($P < 0.05$) was obtained, with a Correlation Coefficient Value of -0.256, which indicates that there is a significant relationship with a negative direction and low strength between the variable of gadget use and the social emotional development (strength scale) of school-age children. This states that the higher the use of gadgets, the lower the level of social emotional development (strength scale) of school-age children.

This finding is also supported by (Nuraini & Wardhani, 2023) Studies have shown a link between gadget use and emotional development. Excessive gadget use can hinder children's social development, such as making it difficult to socialize and experiencing decreased communication skills. This can have negative consequences, such as difficulty expressing feelings or understanding messages from those around them.

On the other hand, some studies show different results, such as research conducted Dahayu Estiningtiyas et al. (2024) The study, titled "The Relationship Between Gadget Use and the Social and Emotional Development of Children Aged 8-12 Years at the UPT SD Negeri 75 Gresik," revealed no relationship between gadget use and social and emotional development. This difference may be due to the children's relatively controlled gadget use. The study also explained that children's social and emotional development remained relatively good despite gadget use, due to parental supervision and guidance.

In general, the results of this study indicate that gadget use has two patterns of relationships with the social and emotional development of school-age children. Excessive gadget use is associated with increased levels of difficulties (emotional symptoms, peer relationship problems, behavioral problems, and hyperactivity) and can also contribute to decreased levels of strengths (prosocial behavior) in children.

Thus, it can be concluded that gadget use has a significant relationship with the social and emotional development of school-age children. The higher the gadget use, the higher the level of social and emotional difficulties and the lower the child's prosocial behavior. This phenomenon demonstrates the need for parental and teacher support in managing children's time, viewing time, and the purpose of gadget use, so that children can maintain good social and emotional development at their stage.

Research Limitations

1. A limitation of this study lies in the questionnaire completion process. This is because the questionnaires were left with the students, who then distributed them to their parents. Consequently, some parents did not return the questionnaires or were unwilling to complete them. Consequently, the final sample size for this study was only 100 respondents.
2. Another limitation of this study is that it did not take into account the children's residential location, which could potentially influence their access to and access to gadgets. Children living in environments with adequate internet access tend to have different levels of gadget use compared to children living with limited internet access. This needs to be considered in future research.

CONCLUSION

This study shows that gadget use has a significant relationship with the social-emotional development of school-aged children at SDN 3 Mindahan, Batealit District, Jepara Regency. Most respondents are in the low to moderate gadget use category and show social-emotional development in the normal category. The results of the Spearman's Rho test indicate a positive relationship with moderate strength between gadget use and the social-emotional difficulties scale, meaning that the higher the gadget use, the higher the level of social-emotional difficulties experienced by children. In addition, a negative relationship with low strength was found between gadget use and the social-emotional strength scale, indicating that increased gadget use tends to be followed by a decrease in children's prosocial behavior. These findings confirm that excessive gadget use has the potential to affect children's ability to manage emotions, interact socially, and build positive relationships with their surroundings.

This study has several limitations, including a reduced sample size compared to the initial population because not all parents returned the questionnaires. Other factors that may influence children's social and emotional development, such as parenting styles, family environment, parental education level, and internet access at home, were not taken into account. Therefore, future research is recommended to use a broader sample size, include more diverse control variables, and employ a longitudinal design to obtain a stronger picture of causal relationships. Practically, the results of this study provide important implications for parents, teachers, and schools to consistently monitor and support children's gadget use. Regulating the duration of use, selecting age-appropriate content, and increasing direct social interaction activities need to be optimized so that children's social and emotional development can grow healthily and in accordance with their developmental stages.

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