

## THE EFFECT OF DIGITAL MEDIA ON THE SOCIO-EMOTIONAL DEVELOPMENT OF CHILDREN AGED 5–6 YEARS

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### Article Information

**Received:**

November 14, 2025

**Revised:**

January 06, 2026

**Accepted:**

January 12, 2026

### Abstract

*The increasing use of digital media in early childhood is feared to impact children's ability to manage emotions, interact socially, and understand the behaviour of others. The study used a quantitative correlational design with 45 parents of children aged 5–6 years old as respondents. The study was conducted from June to July 2025 at Permata Pelangi Kindergarten, Kediri. The research instruments consisted of a digital media use questionnaire and a social-emotional development questionnaire adapted from SEAM, with a Cronbach's Alpha reliability of 0.87. Univariate and bivariate analyses were performed using the Chi-square test. The results showed that most children used digital media for 1–3 hours per day, and the majority had good social-emotional development. The characteristics of mothers, who were predominantly of productive age and had secondary education, potentially influenced their child's support patterns during digital media use. The analysis showed no significant relationship between screen time and child development ( $p > 0.05$ ). Although descriptively, children with longer screen time tended to have adequate development, this trend was not statistically significant. This indicates that the duration of digital media use is not the primary factor determining a child's social and emotional development. Other factors such as content quality, parenting styles, parental support, and children's social activities at school are thought to play a larger role.*

**Keywords:** Digital Media, Social Emotional

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### 1. Introduction

The very rapid development of digital technology has brought major changes to people's lifestyles, including in the world of children [1]. Children aged 5–6 years are in a golden age, crucial for the development of their personality, character, and social and emotional abilities. During this period, children begin to understand their own emotions, recognize the feelings of others, and adapt their behavior to social contexts [2].

The advancement of digital technology, which should be able to

support the learning process and growth of children, can sometimes have negative impacts if its use is not balanced with appropriate supervision and guidance [3].

Excessive exposure to digital media can affect how children interact and express emotions. Children who overuse digital devices tend to have poor emotional control, become easily angered, lack empathy, and have difficulty socializing in person. Furthermore, age-inappropriate digital content can also trigger aggressive behavior, fear, or anxiety in children. This

phenomenon is a crucial concern for parents, educators, and pediatric healthcare professionals in their efforts to support optimal child growth and development [4].

Previous studies have shown mixed results regarding the relationship between digital media use and children's emotional development. Some studies have found a strong link between gadget use and the social development of preschool-aged children [5].

The process of appropriate support from parents will influence various aspects of child development [6]. Therefore, parental involvement, including in supervising children's use of digital media, is very necessary [7].

Although previous studies have shown that digital media use can impact children's social-emotional development, the trend of digital media use increased dramatically during and after the COVID-19 pandemic. Recent studies have shown that the duration and patterns of digital media use during the pandemic are correlated with changes in children's social, emotional, and behavioral functioning, including increased daily screen time and its potential impact on children's social-emotional well-being [8].

This research focuses on the social and emotional development of children, which is relatively limited compared to studies on cognitive, gross motor, fine motor, and language skills.

Based on the description above, the research question is whether there is a relationship between digital media use and the social and emotional development of children aged 5-6 years. Therefore, this study aims to determine the relationship between digital media use and the social and emotional development of children aged 5-6 years.

## 2. Method

This study used a quantitative correlational method. The study was conducted at Permata Pelangi Kindergarten in Kediri City from June to July 2025. The study population was all

children aged 5–6 years at Permata Pelangi Kindergarten in Kediri City, using purposive sampling. Inclusion criteria included parents who were willing to participate and complete the questionnaire. Exclusion criteria included parents of children with developmental disabilities and respondents who did not complete the questionnaire. The total number of respondents in this study was 45 parents of children aged 5–6 years.

The independent variable was digital media use, or screen time, defined as the duration of children's digital media use per day. The dependent variable was the social and emotional development of children aged 5–6 years, measured using the SEAM instrument and categorized based on cut-off scores.

The research instrument was a structured questionnaire consisting of two parts: a digital media use questionnaire and a child emotional development questionnaire adapted from the Social Emotional Assessment/Evaluation Measure (SEAM). The instrument's validity was tested by three experts, and its reliability was achieved with a Cronbach's Alpha value of 0.87. Data collection was conducted through direct questionnaire distribution. Data analysis includes univariate analysis, bivariate analysis using the chi square test with a significance level of 0.05.

## 3. Results and Discussion

**Table 1.** Characteristics of Mothers

Maternal Characteristics	category	F	%
Maternal Age	<25 years	8	17.8
	25-35 years	26	57.8
	>35 years	11	24.4
Higest level of education	SD/SMP	7	15.6
	SMA/SMK	24	53.3
	College	14	31.1
Occupation	Housewife	21	46.7
	Private Employee	14	31.1
	Entrepreneur	6	13.3
	Civil	4	8.9
	Cervant		

Table 1 shows that the majority of respondents (57.8%) were between the ages of 20 and 35, with most having secondary education, and a small proportion being housewives.

This age group is in the productive age group and is generally more familiar with digital technology. This can indirectly influence child support patterns [9]. Parents who are at a mature and adult age have an ideal level of maturity, so they can provide guidance on their children's activities, including supervising the use of social media that is not safe for children [10].

The research results show that the majority of respondents had secondary education. Parents' education, particularly that of mothers, plays a crucial role in a child's development. Education influences parental knowledge and attitudes about parenting. A person with a secondary education is already capable of managing the information they gain and applying it to their child [11].

Other research also suggests a link between a mother's employment status and the frequency of gadget use. Working mothers influence the mother's role in educating children. Housewives spend more time supervising their children's activities at home, including gadget use [12].

**Table 2.** Digital Media Use by Children Aged 5-6 Years in Kediri City

No	Duration of Digital Media use	F	(%)
1	< 1 hours per day	7	15.6
2	1-3 hours per day	25	55.5
3	>3 hours per day	13	28.9
Total		45	100

Table 2 shows that more than half (55.5%) of respondents use digital media between 1 and 3 hours per day.

Children who use gadgets for more than 1 hour per day have poorer social development. Therefore, there is a relationship between the duration of gadget use and the social development of preschool children with a p value of

<0.05 [9]. Excessive gadget use can impact a child's social development. Parents give their children gadgets as a distraction because they are busy and lack attention. To prevent negative impacts, parents should regulate and limit their children's use [13].

Preschool-aged children (6-7 years old) should be given the opportunity to use gadgets for less than 1 hour. This is done to minimize the negative impacts of gadget use [14].

**Table 3.** Social and Emotional Development of Children Aged 5-6 Years

No	Socio-Emotional Development	F	(%)
1	Good	26	57.8
2	Moderate	14	31.1
3	Poor	5	11.1
Total		45	100

Table 2 shows that more than half (57.8%) of respondents had good social-emotional development.

Excessive gadget use increases the risk of ADHD (Attention Deficit Hyperactivity Disorder) in children. Therefore, it is crucial to limit children's gadget use [12].

Parent-child interactions can also influence a child's social and emotional development. The mother figure at home plays a crucial role in filtering information on social media, which can have both positive and negative impacts on social and emotional well-being [15].

**Table 4.** Relationship between Digital Media Use and Children's Social and Emotional Development

Duration of Use Media Digital	Socio-Emotional Development			F	%
	Good	Moderate	Poor		
<1 hours per day	6	1	0	7	17.8
1-3 hours per day	16	6	3	25	55.6
>3 hours per day	4	7	2	13	28.9
Total	26	14	5	45	100

Table 4 shows that the majority of children who use digital media for 1-3 hours per day have good social-emotional development. Meanwhile, children who use digital media for more than 3 hours per day have generally fair social-emotional development.

Direct social interaction is a crucial component in developing emotional regulation and social competence. Prolonged digital media use can reduce children's opportunities for interactive social activities, potentially impacting their social-emotional development [15].

Excessive gadget use is associated with an increased risk of impaired emotional regulation and reduced social skills in preschool-aged children. Children who use social media for more than 2-3 hours per day tend to have difficulty controlling their emotions and exhibit less adaptive social behaviour [16].

Overall, the results of this study support the hypothesis that the duration of digital media use is a factor influencing the social and emotional development of children aged 5-6 years. Longer digital media use tends to be associated with a decline in the quality of social and emotional development if not accompanied by adequate parental guidance and time management.

**Table 5.** Chi-Square Test Results of the Effect of Digital Media on the Social-Emotional Development of Children Aged 5-6 Years

	Value	df	Asymptotic Significanc e (2-sided)	Exact Sig. (2- sided)	Exact Sig. (1- sided)
Pearson Chi-Square	6.967 a	4	0.138		
Fisher's Exact Test				0,152	0,127
Linear-by- Linear Association	0.392	1	0.531		
N of Valid Cases	45				

a. *Beberapa sel (44,4%) memiliki expected count kurang dari 5.*

b. *Fisher's Exact Test digunakan sebagai uji alternatif karena distribusi tidak ideal.*

The chi-square test yielded a Pearson Chi-Square value of 6.967,  $p = 0.138$  ( $p > 0.05$ ), concluding that there is no significant relationship between digital media use and children's social and emotional development. Because there were cells with an expected count  $<5$ , the analysis was continued using the Fisher's Exact test, which also showed no significant result ( $p = 0.152$ ).

The results of this study indicate that there is no significant relationship between digital media use and the social and emotional development of children aged 5-6 years. This finding indicates that the duration of digital media use alone is not necessarily directly related to children's social and emotional development. This finding aligns with several previous studies that reported no significant relationship between screen time and social and emotional aspects in preschool-aged children, particularly when digital media use has become part of the child's daily activities [17].

The insignificant results of this study may be influenced by the correlational research design, which uses a cross-sectional approach. This design only describes conditions at a specific point in time and therefore fails to explain the causal relationship between digital media use and children's social and emotional development. Furthermore, correlational designs cannot capture the dynamics of changes in children's behavior and development over the long term [18].

Many parents use digital media as a learning tool, such as educational videos, children's songs, or interactive learning apps. This suggests that digital media isn't always negative; it can even support social development, such as sharing, understanding emotions, and communication. Smartphone use, under parental supervision, for 3.5 hours per day, has a positive impact and improves children's ability to choose appropriate content [18].

Another factor that could potentially influence the results is sample size and characteristics. The relatively small number of respondents, coming from a single educational institution, limited variation in child characteristics and digital media usage patterns.

Screen time cannot stand alone as a predictor of child development [19]. These factors are influenced by the family environment, and the quality of interactions is more important [20].

#### 4. Conclusion

There was no effect of digital media use on the social and emotional development of children aged 5-6 years. Digital media is not the sole factor determining a child's social and emotional development. Other factors such as the quality of content accessed, parenting styles, parental guidance, and social activities appear to play a more dominant role in shaping social and emotional development. Furthermore, several previous studies have shown that the influence of digital media on social and emotional aspects is highly dependent on the context of use, so duration alone is not sufficient to describe its impact.

#### 5. Acknowledgements

The authors would like to express gratitude to all parties who helped and IIK Bhakti Wiyata Kediri who facilitated the research process.

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