

# The Risks and Importance of Parental Supervision in Children's Gadget Use: Observations on Attitudes, Behavior, and Development in Fishery Neighborhood

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## Abstract

The ubiquitous presence of technology in the form of devices and applications has resulted in a society that heavily relies on gadgets, especially smartphones, for daily activities. This trend is not just limited to adults, as children from the Z generation are also becoming increasingly dependent on gadgets. However, this excessive use of gadgets by children has several negative effects, including addiction to screen time, behavioral changes, early maturation, and more, which many parents seem to be unaware of. To investigate these effects, an explanatory study was conducted using natural observation on 20 children from the Z generation who use gadgets frequently in fishery neighborhood. Data was collected through observation, interviews, and expert judgment, and the results were analyzed descriptively and based on expert explanations. The study found that gadget-using children tend to have a dependence on gadgets for entertainment and often display a decrease in attention to their environment, alertness, difficulty in shifting focus from gadgets, involvement in situations, and motor skills. Therefore, children require control and supervision in gadget usage from parents, caregivers, or teachers, including guidance, content explanation, information restriction, and time management. Moreover, this study emphasizes the importance of parents, caregivers, or teachers having a good understanding of technology use, digital content and information distribution, and the risks and changes brought by technological advances to prevent excessive gadget use among children.

**Keywords:** Gadget use; Children; Parental supervision; Psychological development

## Introduction

The development of technology in various forms, such as devices and applications, has led to a dependence on gadgets (smartphones) for daily activities. This tendency towards gadget use is not only among adults but also among children, especially the Z generation. Despite causing

negative effects such as addiction to screen time, behavioral changes, and early maturation, the use of gadgets among children has become a common phenomenon. Unfortunately, many parents, caregivers, or teachers are not aware of the harmful impact gadgets can have on children

(Pertiwi & Prakosa, 2021; Sagr & Sagr, 2020; Wijaya & Nugroho, 2021).

Technological devices such as gadgets have become the main choice for daily activities, especially in countries like Indonesia. Gadgets are widely used by people of all ages, for various purposes such as communication, online information search, gaming, entertainment through digital content, social media, promotion, and more. Despite the many benefits, the excessive use of gadgets can have negative effects on both adults and children (Hartanto et al., 2020; Khan et al., 2021; Rukmana et al., 2021; Yuniarni, 2019). The use of gadgets is not only limited to adults but has become a contagious habit among children (Srinahyanti et al., 2019; Suhana, 2018; Verma et al., 2018). Children are often conditioned in an environment that encourages the use of gadgets in their daily activities. Some parents use gadgets to keep their children occupied when they are too busy with work, but without proper control over their children's gadget use, this can lead to negative effects such as addiction and behavioral changes. It is essential for parents, caregivers, and teachers to be aware of the negative impacts gadgets can have on children and take appropriate measures to minimize their gadget use (Novianti & Maria, 2019; Rahmawati & Latifah, 2019).

The author observed that most Z generation children in a Jakarta junior high school have gadgets from their parents, which they use for watching videos, gaming, and social media. Parents and teachers present generally do not control what the children do with their gadgets. This phenomenon reflects changes in values and habits in society due to technology development and limited space to play for children. Ironically, teachers and caregivers who replace parents allow unlimited gadget

use, but supervision is necessary to prevent children from imitating negative behavior from what they watch or play (Novianti & Maria, 2019; Pramudyani, 2020).

The use of gadgets by children can have both positive and negative impacts. On one hand, gadgets can aid in learning and help children adapt to technology from a young age. On the other hand, excessive gadget use without parental supervision can lead to a psychological dependence on gadgets and disrupt children's abilities in communication, responsiveness, and overall growth and development (Jaffar et al., 2019; Martín-Ramallal & Ruiz-Mondaza, 2022; Pertiwi & Prakosa, 2021; Srinahyanti et al., 2019; Wijaya & Nugroho, 2021).

Children from the Z generation have been found to use gadgets for more complex purposes beyond what their parents intended (Abdillah et al., 2018). They can create social media accounts, search for content on sharing sites, play gaming applications, and communicate with others. This study specifically examines the risks of excessive gadget use among children, particularly those from the Z generation. The aim is to understand the changes in their natural attitudes, behaviors, and abilities, and to gain input from experts to obtain a comprehensive understanding of the risks of excessive gadget use by children.

## Literature Review

The study on the use of gadgets among children has been conducted extensively, with different emphases among different studies. Some studies highlight the use of gadgets and their impact on children's mental development, attitudes, behavior, skills, and other personality characteristics. For instance, Sagr and Sagr's (2020) study revealed that long-term use of electronic devices has a negative effect on children's

growth and development. The study also stated that unsupervised use of electronic devices by caregivers affects children's psychological, mental, and behavioral development, particularly those caused by technology addiction in children.

Another study by Rashid et al. (2021) indicated that children's gadget use is influenced by various demographic and habitual factors in the family or society, and has a significant impact on children's physical and mental health. Similarly, Pertiwi and Prakosa's (2021) study showed that children's gadget use can have both positive and negative effects. Gadget use can enhance cognitive skills, provide enjoyable entertainment, and be an effective learning tool. However, the negative impact of gadget use can cause laziness in physical activity, anxiety, decreased concentration, and, in some cases, hyperactivity.

On the other hand, Andriani's (2021) study found that the use of gadgets by children does not affect their growth and development. The study did not find any significant correlation between gadget use duration and children's nutritional status or mental and behavioral development. Another study by Novianti and Maria (2019) revealed that excessive gadget use causes concern for many parents, where 86% of respondents said they must constantly accompany and supervise their children's gadget use. The study also showed that gadget use is inevitable because children are accustomed to seeing and using gadgets from their siblings, friends, or parents. Supervision in gadget use is mainly done for learning purposes (45%) and social media (37%).

Other studies, such as Setiani (2020), Calorina et al. (2021), Khan et al. (2021), Hasanah (2017), Verma et al. (2018), Rahmawati and Latifah (2019), also

highlight that gadget use by children is a prevalent issue faced by parents today. Gadget use requires good supervision to ensure children benefit from it. However, if unsupervised or overused, gadget use can have negative impacts on children, such as addiction to entertainment, gaming, and social media, changes in attitudes and behavior, changes in personality, changes in mental-emotional states, laziness in performing other real-world activities, and stunting certain abilities that should develop with age-appropriate growth.

The previous studies indicate that the use of gadgets by children is unavoidable to some extent. Therefore, the best course of action is to minimize its negative impacts. However, considering demographic differences, social situations, family conditions, and other factors that affect the effects of gadget use by children, this study remains significant, especially in obtaining a clear picture of the risks faced by children and the changes that gadget use may cause in them.

## Methods

This study involved three experts in the field of developmental psychology with subject of twenty Generation Z children in Jakarta particularly children who grow up in fishery residential. The study was conducted over a three-month period from October to December 2022. Data was collected through natural observation of the participating children, recording various trends and changes based on the observation items created, and interviews with experts to obtain explanations and an overview of the study's focus.

An observational instrument for children's behavior was developed by modifying the Indonesia Developmental Pre-screening Questionnaire (IDPQ). The

observation items consisted of 15 items with differential semantic scales and accompanying notes. The interview items consisted of 10 questions focused on the conditions of gadget use in children, potential changes, and the positive or negative impacts of gadgets on children's overall growth and development.

This study was conducted following the following procedures: (1) pre-study and initial observation; (2) literature review and problem focus determination; (3) Table 1. Characteristics of the Subjects

Characteristics	n = 20
Gender	
Male	12
Female	8
Age	
> 5 years	7
< 5 years	13
Observation area	
School	40%
Home	60%

Table 1 displays the characteristics of the subjects, which were 20 Generation Z children in Jakarta. Natural observations

formulation of methodology and instruments; (4) data collection through natural observation and interviews; (5) data processing and analysis; and (6) reporting study results.

## Result

The subjects observed in this study were 20 Generation Z children in Jakarta city. The general characteristics of the children who participated in the research can be seen in the Table 1.

of the children's attitudes and behavior, involving their parents both at school and at home, yielded the results shown in Table 2.

Table 2. Frequency Description for the Observation Results

		Statistics														
N	Valid	Item 1	Item 2	Item 3	Item 4	Item 5	Item 6	Item 7	Item 8	Item 9	Item 10	Item 11	Item 12	Item 13	Item 14	Item 15
	Missing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	Mean	6.70	6.80	6.20	6.40	6.20	6.85	7.00	7.10	6.70	7.00	7.40	6.85	6.40	7.55	7.40
	Median	7.00	7.00	6.00	6.00	6.00	7.00	7.00	7.00	7.00	7.00	7.50	7.00	6.50	7.00	8.00
	Mode	7	7 <sup>a</sup>	6	6	6	6 <sup>a</sup>	7	7	6 <sup>a</sup>	7	8	7	6 <sup>a</sup>	7	8
	Std. Deviation	1.129	1.281	1.105	1.095	1.005	1.089	.973	.968	1.031	1.124	1.095	1.040	1.231	1.276	1.142
	Variance	1.274	1.642	1.221	1.200	1.011	1.187	.947	.937	1.063	1.263	1.200	1.082	1.516	1.629	1.305
	Range	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4
	Minimum	4	4	4	5	4	5	5	5	5	5	5	5	4	6	5
	Maximum	9	8	8	9	8	9	9	9	9	9	9	9	8	10	9
	Sum	134	136	124	128	124	137	140	142	134	140	148	137	128	151	148
	Percentiles															
	25	6.00	6.00	5.25	6.00	6.00	6.00	6.00	6.25	6.00	6.00	7.00	6.00	6.00	7.00	6.25
	50	7.00	7.00	6.00	6.00	6.00	7.00	7.00	7.00	7.00	7.00	7.50	7.00	6.50	7.00	8.00
	75	7.00	8.00	7.00	7.00	7.00	8.00	8.00	8.00	7.00	8.00	8.00	7.00	7.00	8.75	8.00

a. Multiple modes exist. The smallest value is shown

Table 2 presents the frequency description for the observation results. The findings from Table 3 indicate that, on a scale of 1 to 10, gadget use by the children had the greatest negative impact on their

attention to their surroundings (<5=25%), alertness (<5=20%), ability to shift their focus away from the gadget (<5=20%), and engagement in the situation around them (<5=20%). Nevertheless, the observation

results also revealed that the gadget use did not significantly affect the children's ability to respond to new things (<5=0%), physical condition (<5=5%), identification skills (<5=5%), memory (<5=5%), attitude towards others (<5=5%), attitude towards people (<5=10%), orientation towards objects other than gadgets (<5=10%), communication skills with others (<5=10%), and interest in things other than gadgets (<5=10%).

## Discussions

The statistical description related to the previous observation results shows that the use of gadgets by children has an impact on all aspects of their abilities and personalities, although with varying levels of influence. The biggest attention is given to changes in children's ability to pay attention to the surrounding environment, their level of alertness, their ability to shift focus from gadgets, and their level of engagement in certain situations they are in. The observation results indicate that the observed children had the biggest decline in these areas.

The author presented these observation results to experts to gain insights into the risks children face from gadget use. The interviews conducted revealed several important points as follows.

First, the use of technology. The development of technology, with various devices and applications it brings, has a great appeal to society and has brought changes in the way people live their lives or carry out their daily activities. This condition is inevitable, considering that technological advancements also bring a large wave of globalization, values, and culture from outside through unlimited access to information in the digital era. The

digital world with its various features is even considered more real than the world that is being lived in. This, in turn, changes the patterns and lifestyles of society. The use of gadgets, in this case, becomes one of the crucial points of lifestyle changes for society, not only for adults and teenagers but also for children.

Second, the use of gadgets among children. The use of gadgets among children is an unavoidable part of the digital era. Children are already in an environment and become part of a community that uses gadgets in their daily lives. Children, from an early age, are subjects who learn through imitation of what they see. If they live among people who use gadgets, then children will imitate and consider gadgets as a fun thing for them too. This process generally occurs naturally. Parents can certainly provide control for the use of gadgets by children, but their interest in gadgets will continue as long as they see others doing it.

Third, the benefits of technology. The use of gadgets or other technological devices has a number of benefits as the essence of technology itself is intended to make human life easier. In the context of using gadgets by children, these technological devices can basically be used to help children learn, communicate, or train certain skills through information that can be obtained through the technology device.

Fourth, using gadgets or other technology devices without control or limits has certain risks for users. Excessive gadget use can cause addiction and bring about changes in physical and mental conditions, attitudes, behavior, and the way people live their lives. Children using gadgets face risks such as addiction and exposure to massive amounts of

information and cultural narratives from various digital content.

Fifth, the use of gadgets by adults and children has become common, but parental control and supervision are important for children. Unsupervised gadget use can bring about changes in children's attitudes, behavior, abilities, personality, and overall growth and development. Children can absorb information from gadgets without filters and process it with their limited intelligence. They may imitate and practice what they see, including violent behavior, which they may consider normal. Cases of children committing violent acts or engaging in indecent behavior show the dangers of unsupervised gadget use.

Sixth, parents or caregivers need to control and supervise their children's use of gadgets to minimize the risks associated with excessive usage. Limiting the apps that can be used, monitoring usage time, and explaining the information received are some of the methods that can be used. Prohibiting children from using gadgets altogether may have negative impacts, such as jealousy, lack of confidence, and anger towards parents, so it is not always the best solution. Children's interests and values vary depending on their environment and upbringing.

Seventh, children find certain digital content appealing, which makes gadgets popular among them. Although parents may restrict access to specific content, children will eventually learn to access other unmonitored content. Social media apps like Instagram, gaming apps, and content sharing apps like Youtube and Tiktok are the most popular among children. These apps have algorithms that may lead children to content that requires parental or teacher supervision. If left

unsupervised, children may access content that can change their attitude, behavior, or way of thinking.

The results of interviews with several experts involved in this study indicate that the use of gadgets by children has both benefits and certain risks, especially when parents or caregivers do not provide good control and supervision over their children. Various changes in the attitudes, behaviors, abilities, and overall growth and development of children, as observed in the previous results (Tables 3 and 4), essentially demonstrate that the use of gadgets among the observed children has already presented risks as mentioned by the interviewed experts. Negative impacts that may arise from gadget use include reduced attention to environmental events (due to excessive focus on gadgets), decreased levels of alertness, difficulties in diverting attention from gadgets (signs of gadget addiction), reduced engagement in situations where they are present (reduced empathy for others), and diminished motor skills due to more sedentary activities while playing with their gadgets.

This study confirms several previous research findings regarding the risks and impacts of gadget use among children, especially when parents, caregivers, or teachers fail to provide adequate control and supervision over the children's use of these devices (Khan et al., 2021; Kumar & Sherkhane, 2018; Madhava et al., 2021; Mega et al., 2020; Pertiwi & Prakosa, 2021; Rukmana et al., 2021; Sagr & Sagr, 2020; Sulyandari, 2019; Surat et al., 2021; Wijaya & Nugroho, 2021). In this regard, there is emphasis on the risk of reducing and diminishing children's abilities, particularly in terms of attention to their environment, alertness, detachment from gadgets, engagement and empathy,

and motor skills. The explanations from the interviewed experts in this study also confirm that the use of gadgets and other technological devices by children is unavoidable. Therefore, parents, caregivers, or teachers need to provide guidance to children in using gadgets, explain the information they receive, and limit gadget usage time while encouraging children to engage in other activities not related to gadgets.

### Conclusions

This study demonstrates that the utilization of electronic devices by children poses certain risks that may result in alterations to their attitudes, behavior, abilities, and overall physiological and psychological development. The observations indicate that children who employ electronic devices are prone to experiencing a decline in attentiveness to their surroundings, vigilance, difficulty in disengaging from electronic devices, involvement in situations, and motor skills. Children necessitate supervision and monitoring from parents, caregivers, or teachers in their usage of electronic devices, via guidance, elucidation of content and information obtained, and limitations on gadget usage time.

The outcomes of this study provide an overview of the significance of parental, caregiver, or teacher monitoring and supervision in preventing excessive utilization of electronic devices by children. Given that the employment of electronic devices by children is inescapable, this study recommends that parents, caregivers, or teachers must also possess a comprehensive comprehension of technology usage, the dissemination of digital content and information, and how they impact users, as well as the risks and

transformations that technological progressions may induce.

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