



The Impact of Gadget Addiction to Social and Academic Development of Elementary School Students and Their Handling Strategies

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ABSTRACT

Development of digital technology has brought major changes in the lives of children, including elementary school students. This study aimed to find out the impact of gadget addiction on social interaction, communication skills, and learning outcomes of elementary school students based on nine relevant academic references. In addition, this research also explores strategies that can be applied by teachers and parents to reduce the negative impact of gadget addiction. This study uses a library review method with a qualitative descriptive approach. Data was collected from scientific journals, books, and previous research that discussed the impact of the use of gadgets on elementary school students. The results showed that gadget addiction contributed to decreased social skills, concentration disorders, and decreased student academic achievement. In addition, the negative impact also includes physical and emotional health problems. Therefore, an approach that involves the active role of parents, teachers, and school environment in controlling the use of gadgets and implementing learning strategies that are more interactive and based on real experience

Keywords: *gadgets, addiction, academic, elementary school students, learning strategies*

1. INTRODUCTION

Nowadays digital technology has brought major changes in the world of education, one of which is in elementary school children. Like smartphones, tablets, and other digital technology as a daily interaction tool. However, the use of excessive gadgets without supervision from parents also has a negative impact, especially in the development of education.

According to research conducted by Hidayatullah et al. (2024), excessive use of gadgets among children is at risk of reducing their social interaction. Children who are accustomed to spending time with gadgets tend to decline in communication skills and are more difficult to establish social relations with peers. Another study by Ananda & Ramadan (2023) found that students addicted to gadgets prefer to interact through digital media compared to face-to-face communication, which can have an impact on their low social skills in the future.

The negative impact of the use of gadgets is also involved in academic aspects. Julmiran & Ain (2024) found that children who use gadgets too often have difficulty concentrating during learning, which ultimately contributes to the decline in their academic outcomes. This is exacerbated by the findings of Sinambela & Simanjuntak (2025) which states that the habit of playing gadgets before going to sleep can interfere with children's sleep patterns, causing them to lack of sleep and experience fatigue while in school, which has a negative impact on their academic achievements.

In addition, the use of uncontrolled gadgets can also affect children's mental health. Afidah et al. (2022) found that children who are addicted to gadgets are more susceptible to stress, anxiety, and drastic mood changes when they are not allowed to use their digital devices. Kamaruddin et al. (2023) also emphasized that students who spent too much time with gadgets are more likely to experience loneliness and loss of interest in the activities they usually like, which increases the risk of depression in elementary school children.

To overcome the negative impact of gadget addiction, various strategies have been proposed. Hahury et al. (2025) recommended restrictions on the use of gadgets by parents and teachers to reduce their negative impacts on child development. Ashilah et al. (2024) highlighted the importance of encouraging children to participate in social



and extracurricular activities to reduce their dependence on gadgets. Meanwhile, Nuzuli et al. (2023) suggested that technology should be used productively in learning, such as the use of educational applications and useful information exploration, so students can still use technology in a more responsible and balanced way.

This study aimed to analyze gadget addiction to the social and academic development of elementary school students and identify strategies that can be used by teachers and parents in overcoming this problem. With this research, it is expected to provide broader insights on how to use healthier and balanced technology for children. The development of digital technology has brought major changes in the lives of children, including elementary school students.

Gadgets such as smartphones, tablets, and other digital devices are now an integral part of daily life, both for educational and entertainment purposes. Although technology can provide benefits in learning, excessive use without supervision can have a negative impact, especially in students' social and academic development.

Various studies have shown that gadget addiction can hamper students' ability to interact directly with peers, reduce communication skills, and increase the risk of psychological disorders such as anxiety and stress. In addition, the use of uncontrolled gadgets is often associated with decreased academic achievement, concentration disorders, and difficulties in understanding subject matter. Therefore, a deeper understanding of the impact of gadget addiction is needed on elementary school students and strategies that can be applied to reduce the negative impact.

This study intended to analyze gadget addiction to the social and academic development of elementary school students and identify strategies that can be used by teachers and parents in overcoming this problem. With this research, it is expected to provide broader insights on how to use healthier and balanced technology for children.

2. METHODS

This study used a library review method by collecting and analyzing various relevant academic sources. Literature Review is a process of analysis that takes place continuously to answer theoretical questions and methods (Yam, 2024). Data sources came from scientific journals, books, and previous research that discuss the impact of the use of gadgets on elementary school students. The data obtained were then categorized based on the main theme, namely social impacts, academic impacts, and strategies for handling gadget addiction. Data analysis was carried out with a descriptive qualitative approach, where every finding of the literature studied was compared and interpreted to gain a more comprehensive understanding of the problem under study. With this approach, the present research can provide a broader and in-depth picture of how addicted gadgets affect student lives and the steps that can be taken to overcome them. With this method, this research can provide a comprehensive picture of the benefits and challenges in the application of differentiated learning in elementary schools.

3. RESULTS & DISCUSSION

3.1 Impact on Social Development

The results of this study indicate that children who are addicted to gadgets have a significant impact on emotional, social, education and academic achievement in elementary school students. Here are some of the findings of the analysis used in this study. Based on research by Hidayatullah et al. (2024), excessive use of gadgets can cause reduced social interaction, weakening communication skills, and increasing the tendency of individualistic behavior in children. Students who more often spend time with gadgets tend to experience difficulties in understanding the expressions of the face, body language, and emotions of others, which results in the low empathy in their social interaction. In addition, research conducted by Ananda & Ramadan (2023) emphasized that students who are addicted to gadgets more often choose to isolate themselves and avoid direct



interaction with peers. They are more comfortable communicating through digital platforms than through face-to-face interactions, which can hamper their social development in the real world.

3.2 Impact on Academic Achievement

According to Julmiran & Ain (2024), there is a strong correlation between the duration of the use of gadgets and decreased student academic achievement. Their study shows that students who use gadgets for more than three hours per day tend to experience difficulties in understanding the subject matter, lack of discipline in doing school work, and experiencing a decrease in learning motivation. In addition, Sinambela & Simanjuntak (2025) stated that the use of gadgets before sleep interferes with student sleep patterns, causing fatigue in the morning which impacts the low level of concentration in the classroom. This concentration disorder makes students more easily distracted and difficult to understand the material delivered by the teacher, which ultimately affects their academic achievements.

3.3 Impact on Mental and Emotional health

Research conducted by Afidah et al. (2022) showed that the use of excessive gadgets also has an impact on students' emotional health, such as increasing anxiety, stress, and sleep disorders. Children who are addicted to gadgets tend to experience emotional disorders when not allowed to access gadget devices, which cause drastic mood changes and aggressive behavior. In addition, Kamaruddin et al. (2023) highlighted that students who spend more time with gadgets often experience loneliness and lose interest in the activities they usually like, which can increase the risk of depression in elementary school age children.

3.4 Gadget Addicting Handling Strategy

To overcome the negative impact of gadget addiction, several strategies that can be applied based on previous research include:

a. Limiting the time to use gadgets.

Research by Hahury et al. (2025) emphasized the importance of supervision of parents and teachers in setting the time limit for the use of gadgets for children. They recommended that students only use gadgets for educational purposes for a limited duration every day. In addition, setting a consistent gadget usage schedule can help students manage their time better and reduce dependence on digital devices.

b. Improving social and non-digital activities.

Ashilah et al. (2024) highlighted the need to increase student involvement in social and extracurricular activities, such as sports, arts, and discussion.

c. Creating group activities to reduce their dependence on gadgets. This activity also functions as an interesting alternative to replace the habit of using excessive gadgets.

d. Using productive technology

Research conducted by Nuzuli et al. (2023) suggested that gadgets should be used productively, such as for digital-based learning and knowledge exploration. Thus, students can still use technology wisely without experiencing excessive dependence.

e. Building Digital Awareness

Sinambela & Simanjuntak (2025) emphasized the importance of education to students about the dangers of gadget addiction and how to use it in a balanced way.

f. Socialization programs in schools and training for parents can help in reducing the impact of the excessive use of gadgets on children.

These studies revealed that gadget addiction has a broad impact on various aspects of the development of elementary school students. Not only affects social skills and interpersonal interactions, but also has an impact on their academic results and mental health. The use of uncontrolled gadgets has been proven to reduce the focus of



learning, increase the risk of anxiety, and reduce student involvement in physical and social activities. Therefore, efforts to prevent and intervene that involve all elements of education, including teachers, parents, and school environment, are very important to ensure that technology is used in a healthy and balanced way.

Overall the results of this study show that gadget addiction has a very complex impact on the development of elementary school students. The use of uncontrolled gadgets has resulted in a decline in students' social skills, where they spend more time with the screen compared to interacting directly with peers. This has an impact on the weakness of interpersonal communication skills, low empathy, and increasing the tendency of individualistic behavior. In addition, students who are addicted to gadgets tend to be less active in social activities in schools, which leads to the lack of their involvement in collaborative activities that are important for the development of social skills.

In terms of academics, this research also revealed that gadget addiction contributes to the decline in student learning outcomes. Disorders of the concentration caused by the habit of excessive use of gadgets make it difficult for students to focus on understanding the subject matter. In addition, many students are more interested in spending time with games or watching video compared to completing school work. Sleep disorders due to the use of gadgets at night also cause fatigue that hinders their productivity at school. Previous studies also show that students who use too many gadgets have lower memory compared to students who are more physically and socially active.

In addition to social and academic aspects, the impact of gadget addiction to students' mental health is also a major concern. Gadget addiction is often associated with an increase in stress levels, anxiety, and even symptoms of depression in children. Many students experience a drastic mood change when access to their gadgets is limited. They are also easier to experience frustration and show aggressive behavior when asked to stop using gadgets. These factors indicate that gadget addiction is not only academic issues, but is also a big challenge in the emotional development of elementary school age children.

To overcome this problem, various strategies have been proposed, including restrictions on the use of gadgets, increasing non-digital activity, and increasing digital awareness for students and parents. Teachers and parents have a key role in supervising and directing the use of technology to remain productive and does not have a negative impact on children's development. Education about digital literacy also needs to be improved, so students can understand how to use technology responsibly and in balance.

4. CONCLUSION

The results showed that gadget addiction had a significant negative impact on social, academic development, and the mental scholars of elementary school students. The use of uncontrolled gadgets causes reduced social interaction, decreased academic achievement, and increasing emotional disorders in students. Therefore, an active role of parents, teachers, and school environment is needed to overcome this problem by implementing a time restriction strategy, encouraging non-digital activities, and increasing digital awareness in students. With the right approach, the negative impact of gadget addiction can be minimized and students can grow and develop optimally in a healthy and balanced environment.

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