



# Smartphone Usage Levels Among Fifth Grade Students at Integrated Islamic Elementary Schools An – Najiyah Tuban

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## Abstract

*This study aims to examine the high intensity of smartphone use among elementary school students, which affects their concentration and learning quality. The main objective of this study is to examine the extent of smartphone use and its impact on fifth-grade students at SDIT An-Najiyah Tuban. The approach used was quantitative with a survey method. The entire study population consisted of 18 students who were selected as samples through a saturated sampling technique. Data collection was conducted using a closed-ended questionnaire with a Likert scale, based on indicators of duration of use and its impact. The analysis results show that the level of smartphone use is relatively low, both for learning and entertainment purposes. However, the dominant use still revolves around educational activities. Therefore, teacher involvement is needed to direct and supervise smartphone use to more effectively support the learning process.*

## INTRODUCTION

Advances in Information and Communication Technology (ICT) have had a significant impact on education, particularly in supporting the learning process. Effective learning requires media that can help students absorb information optimally. As time goes by, ICT plays a crucial role as a tool for accessing various information sources relevant to learning materials. (Suryadi, 2015). Smartphones are a tangible manifestation of the rapid advancement of information technology in today's era. This development brings various benefits and conveniences to everyday life. Nearly everyone now uses smartphones, indicating that modern human life is highly dependent on advances in information technology, particularly smartphone use. (Catyo Enggong et al., 2024).

Technological devices such as computers, laptops, and smartphones are now commonly used by teachers and students to support learning activities. Smartphones are multifunctional devices that allow users to send messages, make voice and video calls, play media such as songs and videos, read digital books (*e-book*), and access the internet. Smartphones make communication more convenient, untethered from distance and time. In the context of learning, students can use smartphones to access various online learning materials and media. However, in practice, students use their smartphones more often for playing online games and browsing social media than for learning activities. (Zulfa & Mujazi, 2022).

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The high frequency of smartphone use can affect children's behavior and character in everyday life, such as wasting time, ignoring advice from parents and teachers, and waking up late due to sleeping late at night. (Pariyatin et al., 2023). The existence of smartphones in

Learning activities also support students' independent learning with virtual guidance from educators. However, if their use is unsupervised, this can potentially lead to boredom and decreased concentration. (Zulfa & Mujazi, 2022).

When their parents confiscate the smartphone they normally use for gaming, children tend to react angrily and cry until the devices are returned. Furthermore, when given assignments or facing exams, they rarely open books to study, instead preferring to search for answers instantly online, as it's considered faster and more convenient. This habit weakens their writing skills and understanding of the subject matter, as books have been replaced by Google as a learning resource. As a result, many students become addicted and struggle to break free from this habit. (Catyo Enggong et al., 2024).

Excessive and prolonged smartphone use can negatively impact student learning outcomes, ultimately leading to decreased academic achievement. According to the American Academy of Pediatrics (2017), children aged 3–5 should use smartphones for no more than one hour per day, while children aged 7–13 should use a maximum of two hours per day. However, the reality in Indonesia shows that many children use smartphones for four to five times longer than the recommended limit. (Saputra & Purnama Sari, 2024). Lack of supervision and control from parents, coupled with children's exposure to devices such as cell phones and tablets—especially at night—can have an impact on changes in children's sleep patterns. (Hidayati et al., 2023).

The condition of children who are addicted to smartphones can directly hinder their motivation to learn and make it difficult for them to focus on the learning process. (Sobon & Mangundap, 2019) Smartphones are often seen as simply tools for taking selfies, chatting with friends, or playing games. However, when used appropriately, these devices can be utilized as a medium to support educational communication and facilitate the delivery of knowledge. (Okviati et al., 2020).

This research is crucial for understanding the extent of smartphone use among students, by identifying usage patterns and influencing factors. This will enable teachers to formulate more appropriate strategies for managing technology use in the school and home environments, enabling more informed smartphone use by elementary school students.

## METHOD

This study utilizes a quantitative approach with a survey. The goal is to identify whether there is a significant influence between smartphone use for 8 hours per day on the learning quality of elementary school students. In this study, the researchers used a population of fifth-grade students at SDIT An-Najiyah Tuban. Purposive sampling was used to identify students who use smartphones at SDIT An-Najiyah Tuban.

Population The sample in this study was all 18 fifth-grade students of SDIT An-Najiyah Tuban. Because the population size was relatively small and still possible to study as a whole, the researcher used a saturated sampling technique. The saturated sampling technique is a sampling technique where all members of the population are used as samples.

This study uses an instrument in the form of a questionnaire or questionnaire that is designed in a structured manner to collect data from respondents. This questionnaire aims to explore the opinions, attitudes, and perceptions of respondents towards the variables that are the focus of the study. The purpose of this questionnaire is to assess the perceptions of respondents, where each statement item is arranged referring to the indicators that have been determined according to each variable in the study. This questionnaire is designed in a closed statement format by applying a five-level Likert scale, which includes: Strongly Agree (SS), Agree (S), Undecided (R), Disagree (TS), and Strongly

Disagree (STS). With indicators "Duration of Smartphone Use" and "Impact of smartphone use" on students.

The questionnaire data were analyzed using a quantitative descriptive approach. This approach is intended to provide a general overview of the extent to which students at SDIT An-Najiyah Tuban use smartphones based on the collected data:

Descriptive analysis is carried out through calculations:

1. Mean (Rate-rate)

The mean is used to determine the average score of respondents' answers to each statement item. The mean value indicates the respondents' general tendency towards a statement or variable being studied.

2. Modus

The mode is used to determine the most frequently chosen answer by respondents for each questionnaire item. The mode is useful for identifying general patterns or dominant choices in the data.

The mean and mode values obtained from the analysis results will be displayed in the form of tables and diagrams to facilitate understanding of the data, and explained narratively to describe the patterns or tendencies of smartphone use among students.

**RESULTS AND DISCUSSION**

This study also conducted interviews and distributed questionnaires. For the interviews, the researcher directly interviewed teachers at SDIT An-Najiyah Tuban, namely Mr. Siswo S.Pd., as the 5th grade homeroom teacher, to explore their views on smartphone use by students, especially in relation to its impact on learning concentration and the teacher's role in directing and limiting such use. Meanwhile, for the questionnaire distribution, the researcher distributed the questionnaires to the 5th grade students of SDIT An-Najiyah Tuban.

The following table presents a questionnaire designed to gather data from respondents. The questionnaire was designed based on predetermined indicators, with the goal of gathering relevant information and supporting the achievement of the research objectives.

**SMARTPHONE USAGE QUESTIONNAIRE**

Number :

Class:

Information:

STS = Strongly Disagree      TS = Disagree      N = Neutral  
 S = Agree      SS = Strongly Agree

No	Statement	STS	TS	N	SS	S
1	I am often distracted from studying by notifications from my smartphone.					
2	When studying, I was more interested in opening social media than paying attention to the teacher.					
3	I have difficulty concentrating while studying because I check my smartphone too often.					
4	I understand the lesson material better if I search for it through YouTube videos.					
5	I find learning using a smartphone easier than listening					

	to a teacher.
6	I prefer reading lessons from learning apps rather than textbooks.
7	I quickly forget the lessons that have been taught if I play with my smartphone too often.
8	I have difficulty remembering the study material because I often play games on my smartphone.
9	I often forget my homework because I'm too busy playing with my smartphone.
10	My grades decreased after using my smartphone more often every day.
11	My study time has decreased because I spend more time playing on my smartphone.
12	I feel my learning ability is decreasing because I use my smartphone too much.

**Results Table  
Smartphone Usage Questionnaire**

Information:

STS= (1)      TS= (2)      N= (0)      S= (3)      SS= (4)

NO	Student Name	Amount	Rate-rate	Presentation
1.	Aisyah Putri Lestari	36	2	90,00%
2.	Moh Fajar Hidayat	23	1,5	57,50%
3.	Aldi Rama Saputra	33	1,83	82,50%
4.	Ahmad Budi Santoso	40	2,22	100,00%
5.	Dani Aditya Nugroho	34	1,88	85,00%
6.	Fahmi Reza Maulana	9	0,5	22,50%
7.	Dika Prasetya	26	1,44	65,00%
8.	Siti Nia Rahma	26	1,44	65,00%
9.	Siti Nurhaliza Zahra	20	1,11	50,00%
10.	Abd. Rafi Ahmad	30	1,66	75,00%
11.	Nabila Anisa Salsabila	15	0,83	37,50%
12.	Rizky Dwi Pratama	15	0,83	37,50%
13.	Dewi Rina Kartika	34	1,88	85,00%
14.	Then Amalia Sari	22	1,22	55,00%
15.	Santika Lestari	34	1,88	85,00%
16.	Yoga Permana	33	1,83	82,50%
17.	Rani Wulandari	37	2,05	92,50%
18.	M. Hidayatullah	33	1,83	82,50%

Based on the data obtained from 18 fifth grade students at SDIT An-Najiyah Tuban, the average value (mean) and the most frequently appearing value (mode) can be calculated from the total score of the questionnaire given.

1. Mean Calculation:

The total score obtained from all students is:

$$36 + 23 + 33 + 40 + 34 + 9 + 26 + 26 + 20 + 30 + 15 + 15 + 34 + 22 + 34 + 33 + 37 + 33$$

$$= 500$$

With a total of 18 students as respondents, then:

$$\text{Average (Mean)} = \text{Total Score} \div \text{Number of Students}$$

$$500 \div 18 = 27,78$$

## 2. Mode Calculation:

From the existing score data, it was found that the frequency of appearance of score 33 appeared 3 times, score 34 appeared 3 times, scores 15 and 26 each appeared 2 times, other scores only appeared 1 time.

Thus, the mode is 33 and 34, because these are the two scores that occur most frequently.

Conclusion:

1. Average questionnaire score (Mean): around 27.78.
2. Most frequently occurring scores (Mode): 33 and 34

## 1. Teachers' Educational Views on Smartphone Use for Students

Each teacher plays an active role in educating students about the negative impacts of smartphone use. This is done through guidance and direct monitoring during the learning process. The goal is to enable students to use smartphones wisely and responsibly, avoiding excessive use that could disrupt their concentration and learning process.

Overall, teachers at SDIT An – Najiyah Tuban have an objective and educational view on the use of smartphones by students. They do not reject the presence of technology, but view it as a tool that can provide benefits if used wisely and within reasonable limits.

Teachers recognize that smartphones have the potential to support student learning, such as accessing supplementary materials, watching educational content, and using interactive learning apps. However, they are also concerned about potential negative impacts, such as the risk of addiction, decreased concentration, disrupted sleep patterns, and reduced social interaction.

Therefore, teachers emphasize the importance of an active role for adults, both at school and at home, in supervising and guiding students' smartphone use. They believe that the use of these devices needs to be directed so that it does not interfere with the learning process and character development.

## 2. Negative and Positive Impacts of Smartphone Use on Students

Interviews with fifth-grade homeroom teachers at SDIT An-Najiyah Tuban revealed that teachers are concerned about students' increasing smartphone use. They believe that irregular smartphone use can have negative effects, particularly on students' focus, discipline, and academic success.

Educators state that students tend to be more easily distracted, have less concentration during learning, and show a decreased interest in learning. This is because most students use their smartphones more often for gaming or watching entertainment content than for educational purposes.

However, teachers also recognize that smartphones can have positive impacts when used wisely. Therefore, they emphasize the importance of parental guidance and

supervision, as well as the need to instill the habit of wise smartphone use from an early age. Students can also access various learning resources and improve their digital skills.

### 3. Teacher Advice for Wise Smartphone Use

Interviews with fifth-grade homeroom teachers at SDIT An-Najiyah Tuban provided constructive feedback to encourage students to use smartphones wisely and responsibly. The teachers emphasized that these devices should ideally be used as learning aids, not simply as entertainment.

Teachers recommend that smartphone use be controlled under parental supervision at home, including setting usage times and selecting the types of content permitted. Children should be given clear time limits and directed to access more learning apps or educational content. Schools can organize digital literacy activities, while parents are expected to actively communicate with their children about daily smartphone use.

## DISCUSSION

Rapid technological advances have transformed the telephone, previously used only for long-distance communication, into a device primarily serving as a means of entertainment. This versatile device is now better known as a smartphone. (Zulfa & Mujazi, 2022) According to M. Rogers, communication technology includes physical devices, organizational structures, and social values that enable each individual to access, process, and share information with one another. (Khoirunnisa et al., n.d.).

Smartphones have become widely known among everyone, from adults to young children. These devices are designed as fast and efficient communication tools, allowing users to feel comfortable and perform various activities with just one device: the smartphone. (Artha Soma et al., 2025).

A smartphone is a type of telephone that offers more capabilities than just making voice calls. While technically any telephone can be called a smartphone, the term generally refers to mobile phones, not landlines. As portable device technology advances, the concept of the smartphone continues to evolve and improve in terms of the functions and features it offers. (Artha Soma et al., 2025).

Smartphones are one of the products of technological advancement whose sophistication is now not only used by teenagers and adults, but has also reached elementary school-aged children and students who use smartphones as a tool to search for data and information, as well as a supporting medium in the learning process. (Dea Marshahifa, n.d.) Another important aspect that needs to be considered in the use of smartphones to support online learning is the potential for addiction, namely the emergence of signs of dependence on gadgets due to excessive use. (Khikmawati et al., 2021).

Positive impacts can arise when smartphone use is carried out under parental supervision. Parents' role is crucial in this regard because smartphones allow children to easily access a variety of information. With proper guidance, children can find study materials not available in books, including using applications that support learning activities. Without supervision, children tend to use smartphones as they please or follow whatever comes to mind, without considering the benefits. (Dianti Ira, 2023).

Smartphone use among children is increasingly concerning and has various negative impacts on their physical, emotional, and social development. As a result, many children are immersed in gadget use solely for entertainment. When children use gadgets excessively without clear time limits, this can disrupt sleep patterns, decrease interest in learning, and reduce social interaction with their surroundings. Furthermore, exposure to age-inappropriate content can also influence their thinking patterns and behavior. (Hidayah et al., 2021).

The use of smartphones as a medium with very fast data access can have an impact on increasing the risk of decreasing the user's attention, concentration and memory.

(Marhaeni et al., n.d.). Seeing the fact that smartphones can be an effective learning tool but also have the potential to disrupt students' concentration, serious attention is needed from various parties. Not only schools as formal educational institutions, but also parents as primary supervisors at home, and students themselves as users. All three must work together to create a supportive environment so that smartphone use is not misused. With proper supervision and utilization, smartphones can be a productive tool in supporting the learning process, not an obstacle. (Artha Soma et al., 2025).

Proper use of gadgets by students, especially young children, can help improve their understanding of learning, for example, by enriching their vocabulary. The increasing use of smartphones has encouraged children and adolescents to access the internet more frequently, which previously was mostly done via computers in internet cafes, school laboratories, or laptops at home. (Zaini & Soenarto, 2019) Smartphones serve as a supporting medium in the learning process, helping students find additional information related to the subject matter. This is especially helpful when the textbook's content is deemed incomplete or the explanations are difficult for students to understand. (Ari, 2023).

Thus, unsupervised smartphone use at SDIT An-Najiyah can negatively impact students' concentration, reduce study time, and lead to a decline in academic achievement. Symptoms such as being easily distracted, having difficulty focusing, and being dependent on these devices are beginning to appear in the majority of students who actively use their smartphones.

## CONCLUSION

Based on the results of research conducted on fifth grade students at SDIT An-Najiyah Tuban, it can be seen that smartphone use is not only used for entertainment or games but also used for education or can develop students' potential and creativity. The results of questionnaire data analysis show an average value (mean) of 27.78, which reflects the level of smartphone use is in the moderate category. The most frequently appearing values (mode) are 33 and 34.

Unsupervised smartphone use can negatively impact students' ability to concentrate while studying, reduce the intensity of study time, and lead to a decline in academic achievement. Symptoms such as being easily distracted, having difficulty focusing, and being dependent on these devices are beginning to appear in most students who use smartphones intensively.

However, if used appropriately and within reasonable limits, smartphones can actually be an effective tool in aiding the learning process. With quick internet access, students can search for additional resources, watch educational videos, and use interactive learning apps.

Therefore, close collaboration between parents, teachers, and students is necessary to guide smartphone use in a more productive direction. Supervision, guidance, and early understanding of the ethics and limits of technology use are key to ensuring smartphones truly support the achievement of educational goals, rather than hinder them.

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