

# **Patterns of Gadget Use in Preschool Children's Learning: An Overview of Sociology of Education**

**Eka Setiawati**  
**Universitas Setia Budi**

**Agustinus Tandilo Mama**  
**Universitas Cenderawasih**

**Usmaedi**  
**Universitas Setia Budi**

*In a sociological review of education, the goal of this study is to look at how pre-schoolers use technology to learn. This study uses qualitative research and a method of analysis called "descriptive analysis." In this study, the events being talked about are how kids ages 5 and 6 at RA Al-A'raaf Rangkasbitung use gadgets to learn online. This study used the principal, teachers, parents of students, and eight boys in group B as sources of information. Based on the results of the data analysis, it can be said that kids are using their devices more and more while they are learning online. On average, kids use gadgets for three hours a day. People worry that more people will become addicted to their gadgets as they use them more and more. Attention deficit disorder and hyperactivity can get worse when someone is addicted to gadgets. This is something that needs to be thought about as much as possible.*

*Keywords: gadget, learning, school, sociology, education*

## **INTRODUCTION**

In this high-tech age, gadgets are a must-have for both kids and adults (Vasiliou et al., 2014; Mahat et al., 2012). Gadgets are not only a way to talk to people, but they can also make it easier to do other things. Gadgets are modern electronic devices made to make things easier and more useful, especially when it comes to communication (Selvi, 2022; Muthuprasad et al., 2021). Gadgets make such big changes in so many parts of life. This is clear from how the way people live their lives affects their thoughts and actions (Shetu et al., 2021).

Digital technology is an important part of how children grow and learn. When digital technology is introduced into a child's life, it gets in the way of different stages of development that children should reach. Technology makes their lives faster and more useful (Bidin & Ziden, 2013). The growth of entertainment technologies like TV, the Internet, video, video games, the iPod, and the iPad has happened so quickly that most families don't realise how much they change their lives (Mohammad et al., 2012). Many parts of a child's development must change to fit into a world where technology is the norm.

Concerning, for example, the toys children play with, their relationships with their parents, and the world around them. In situations like this, parents play a key role in deciding what affects a child's growth and what doesn't (Ladyzynski et al., 2019; Lauricella et al., 2015).

A person's life begins when they are a child. The difficulty of life: Child development, especially early childhood development, is the most important foundation for later stages of human development, like adolescence and adulthood. A lot of stimulation is needed for a child's complex early development to reach its best state (Ahmed, 2012). Studies done by Plowman et al. (2012) show that humans start their journey as babies by watching what's going on around them. As part of learning about life, babies set things in motion through the things they do and see. All parts and components of human existence from birth require the optimal balance of genetic and environmental variables for optimal learning.

Early childhood, which is the first five years of a child's life, is a very important time in his or her growth, which is why it is called "The Golden Age" (Huffman et al., 2013). All parts of intellectual growth, including intellectual, emotional, and spiritual intelligence, went through a lot of change, which affected and shaped future changes until the person reached adulthood. Children in The Golden Age learn to be good imitators. They are smarter than we think and smarter than they look, so we shouldn't take them for granted. If a child is given a device as a toy, it will make it harder for him or her to learn a language (Papadakis et al., 2019). Aside from the effects of language, it's also worrying that children's emotional development is being messed up. Children will grow up to be impatient and quick to anger, and they won't be able to control their feelings or even know how to do so.

During the COVID-19 pandemic, children must study at home because of Large-Scale Social Restrictions and physical separation. Online/online/distance learning is used to stop the number of COVID-19 cases from going up. So, in the COVID-19 pandemic, which forces kids to study at home, many parents have found ways for their kids to use gadgets to learn how to follow the rules on the internet. Gadgets are a way to communicate in the modern world. There are lots of different kinds of gadgets, like cell phones, laptops, computers, tablets, iPads, and so on.

Based on the phenomenon that often occurs, parents rarely monitor the use of gadgets in children. Most of the time, kids only use gadgets to play games and watch TV, which is bad for their development. In addition, the prolonged use of electronic devices, especially amid the present COVID-19 pandemic crisis. According to Rusli et al. (2020) and Qazi et al. (2020), the American Academy of Pediatrics and the Canadian Association of Pediatricians say that children ages 0 to 2 should not be exposed to technology at all. Children ages 3 to 5 can use electronics for one hour per day, while kids ages 6 to 18 can only use them for two hours per day. Children who use technology beyond the recommended duration can pose a health risk. Ironically, many parents give and let their kids play with gadgets that shouldn't be used by kids. They say this is because kids aren't fussy and can sit still (Broadbent & Poon, 2015; Viberg et al., 2018).

Gadgets are not only used by adults or people who are elderly but are used among teenagers aged 12-21 years and among children aged 7-11 years. Ironically, kids ages 3 to 6 use gadgets, even though they shouldn't (Blackwell et al., 2014; Singh et al., 2020). When kids use gadgets too much, it can slow down their growth and development. One of them is the reduced physical activity that children should be doing. Another bad thing about gadgets is that if you use them for too long, they can hurt your eyes and brain. Several studies show that using gadgets for too long slows brain growth, makes it harder to sleep, causes mental problems, makes people more aggressive, and exposes them to radiation. So kids should only use their gadgets for short periods of time. So, parents should expect to always have to control and watch how their kids use gadgets. Parents should also limit how long their kids can use gadgets and be smarter about how they choose and organise the apps on the gadgets. Parents should also protect their children when using gadgets (Livari et al., 2020). (Livari et al., 2020).

From what has been seen, most kids need to be watched when they use gadgets. Most kids already know how to use gadgets, so when they are learning online, parents need to keep an eye on them and set time limits so that gadgets can still be used to learn during the pandemic (Lotz et al., 2015). When kids are learning online, it's important for parents to help them focus by giving them a lot of help. Aside from that, it's to stop kids from using devices to open other apps, like games or social media, that can make it hard for them to focus.

## LITERATURE REVIEW

### The Role and Function of Gadgets in Learning

The gadget is a piece of technology that people have made and that is becoming more advanced as time goes on. It is made to have many benefits and different service features so that it can be used to collect different kinds of information easily and practically and to give people pleasure. Its people (Bundhum et al., 2018). The main reason we have gadgets is to make all of our work easier. Some examples are how easy it is to talk to people, find information, or do other things. Gonzales Acevedo (2016) says that some of the functions of gadgets are as follows: (1) Gadgets serve as communication tools that everyone can use. People can connect and talk to each other using communication devices like smartphones, laptops, smartwatches, and others; (2) Gadgets serve as a way to access some information on the internet; (3) Some gadgets are made for entertainment, like iPods, which let you listen to music and watch videos; and (4) Some gadgets are made just for fun, like

Also, the gadget can help with all kinds of work, like communicating, finding information, enjoying entertainment media, living a healthy lifestyle, and making friends. Gadgets have become an important part of life, so there are many ways to use them in everyday life. There are many kinds of gadgets, and they all do different things. But a lot of people think gadgets are just smartphones, even though smartphones are a gadget (Yohana & Mulyono, 2021; Aryabkina & Spiridonova, 2017). Here are some common types of gadgets: 1) Cell phones. People use mobile phones more than any other kind of tech today. Mobile phones are the most popular device among almost everyone, even kids. Its main job is to help people talk to each other, but as time went on, it gained many other uses, such as finding information, playing games, taking pictures, and much more. Technology is changing quickly in the world of cell phones. Smartphones with different operating systems, like iOS, Android, and Windows phones, are popular types of cell phones today. 2) Laptops are a type of device that is often used for many things, especially work. Just like with cell phones, laptops are also getting more and more advanced. New brands keep coming out with better technology. 3) Tablets and iPads. Tablets and iPads are types of devices that are much bigger than cell phones. With bigger screens than cellphones, tablets, and iPads, they can show larger and clearer images, making it easier for users to watch movies, play games, and do other things. 4) Digital Camera, a digital camera is a gadget. The purpose of digital cameras is to take pictures and videos of things (Mustapa et al., 2015). Several improvements have been made, such as making the lenses more advanced and coming up with the name "Action Cam."

### Online Learning

Online learning is a way of teaching that uses the Internet and a system called a Learning Management System (LMS). Online learning is a programme that puts together online lessons so that they can be accessed by a wide range of people. Online education is a way to learn from afar that uses technology, especially the internet and computers. The online mode approach is based on constructivism, social constructivism, a community of learners that welcomes everyone, computer-based learning, digital classrooms, interaction, independence, accessibility, and enrichment (Oranc & Kuntay, 2019; Bus et al., 2015).

Children use the internet network to take part in online learning. There are parts to the online learning method. Lee et al. (2018) and Mandal et al. (2020) describe some features of online learning as follows: interactivity, independence, accessibility, and enrichment. Based on this theory, we can say that online learning is defined by its use of electronic media, its delivery over the Internet, and its ease of access. Also, the way technology is changing right now affects everyone, including the education field, which has to figure out how to use technology as the main medium for online learning. With this technology in education, it is easier to get to learning materials and learning resources. This helps make education more efficient, such as making the most of learning time (Garrisom & Kanuka, 2004).

According to a study by Mishra et al. (2020), there are many benefits to online learning. One of these is that it improves the quality of education and training by making good use of multimedia in learning. (2) Making good education and training more affordable by allowing people to learn online. (3) Using shared

resources to make quality education and training cheaper. According to Bates and Wulf, the benefits of online learning also include the following four things: 1) Increasing the amount of contact between students and professors or instructors; 2) Allowing learning interactions from anywhere and at any time; 3) Reaching a large number of students; and 4) Making it easier to improve and keep learning materials.

In the modern world, gadgets are being made all the time. The design of gadgets is getting better and the number of apps available makes it easier for everyone to get information about all parts of life. When new gadgets come out, every parent thinks “instantly” about how to teach their kids. So, it’s not strange anymore for parents to give their young or old children gadgets (Dominguez et al., 2011). Nancy et al. (2020) say that an eMarketer survey shows that the number of people using gadgets has gone up a lot in Indonesia, which is expected to be in the top four countries with the most gadget users in 2016. eMarketer also thinks that the number of smartphone users in Indonesia will continue to grow from 2016 to 2019; in 2017, there are expected to be 74.9 million smartphone users. In relation to this problem, a person’s tendency to use gadgets too much and in the wrong way will make them not care about their family or community.

Alenazi and Shahi (2015) say that a child’s first five years, or early childhood, are a very important time for development. Therefore, this time is called the “golden age.” During this time, all parts of intellectual development, including intellectual, emotional, and spiritual intelligence, went through huge changes that would affect and determine future growth. When kids reach the golden age, they quickly learn everything they can. They become reliable imitators who are smarter than we think and smarter than they seem. This will be the basis of their attitude and knowledge. Many people in Indonesia have used gadgets since they were young. The study’s results showed that 42.1% of preschoolers who used gadgets to watch videos or play games were among the ones who used gadgets the most. When kids are young, it’s not good for them to use gadgets. Some are good for shaping a child’s character, depending on how well their parents and other adults watch them and know what is good for them at a young age.

### **The Intensity of Gadget Use in Children**

The amount of time kids spend on their gadgets can be judged by how often they use them every day or how many days a week they do so. If kids use their devices too much every day or every week, they will be less interested in playing outside and more interested in their devices.

People worry that more people will become addicted to their gadgets as they use them more and more. Gadget addiction can make attention deficit disorder and hyperactivity more likely to happen (Samuel et al., 2020). Children spend most of their free time playing with electronics, which makes them lazy and less likely to move around. These kids would rather spend their time sitting in front of the device and using all of its features. Children like this will grow up to be overweight when they are older. They don’t move much and spend most of their time eating and playing with gadgets (Rambli et al., 2013; McClelland & Morrison, 2013).

If this happens, it will slow down the development of motor skills. In the end, kids who don’t have gadgets will spend most of their time doing simple gross motor activities like walking, jumping, tiptoeing, and running. Laleye (2015) and Basiliou et al. (2014) say that in early childhood, moderately intense devices are used for more than 45 minutes at a time and more than three times a day. Young children should not use electronic devices for more than 30 minutes per day and no more than 1-2 times per day.

This research is about how gadgets can be used in online learning. The principal, teachers, and parents of students at RA Al-A’raaf Rangkasbitung are the people who are in the background of this research. Reasons why this research background was chosen include the fact that it is easy to get to. The method used is a descriptive analysis of a qualitative method. In this study, the events being talked about are how kids ages 5 and 6 at RA Al-A’raaf Rangkasbitung use gadgets to learn online. This study used the principal, teachers, parents of students, and eight boys in group B as sources of information. Researchers used three different ways to look at data.

Researchers, on the other hand, used observation, interviews, and writing to gather information. In this study, the process of analysing the data went through three steps: reducing the amount of data, showing the

data, and making sure the data is correct. In qualitative research, tests of credibility, transferability, dependability, and confirmability are used to check the validity of the data.

### **Use of Gadgets in Online Learning**

RA Al-A'raaf gives a lot of thought to how gadgets can be used to help kids ages 5 to 6 learn online. In the online learning process, gadgets are used as ways to learn. Parents can help their kids learn online with the help of gadgets while the pandemic is going on. Of course, parents learn with their kids so that devices are used in the right way when online learning is done. Parents need to watch their kids when they use gadgets, both in class and outside of school. Parents should tell their kids not to use too many gadgets outside of school, because too much gadget use can be bad for kids. After all, kids can get into anything if they aren't watched properly. But using gadgets for online learning at RA Al-A'raaf isn't very effective because there are still a lot of kids who aren't paying attention when they use them. Of course, this means that parents need to keep a close eye on their kids. This can be seen from the results of observations in the form of field notes (CL), which say that the teacher reminds all parents that they are required to supervise their children's use of good gadgets. This is because when children use gadgets that aren't as good, they don't pay attention to how they're being used, which can interfere with their online learning (Cl.1 P.3 Kl.1).

When using gadgets for online learning, teachers and parents can work together to make sure that kids are being watched while using gadgets both in class and outside of class. This way, online learning activities can run smoothly and kids can pay attention to each lesson.

Based on interviews with classroom teachers at RA Al-A'raaf, it was found that the use of gadgets in online learning at RA Al-A'raaf was not effective because children were not paying attention when online learning was being done; we can see that during the pandemic, many children used gadgets to play games and watch other videos, so we always remind both children and parents to use gadgets for what they were made for. tries to limit how much kids use gadgets so that they don't have a negative effect on kids.

While interviews with other parents of students showed that gadgets made online learning less effective because kids weren't paying attention to what they were doing. My son doesn't like to wait when he's learning online. He has trouble focusing and wants to play a game right away. Also, kids can play with gadgets both during school hours and when they are not in school.

### **The Intensity of Gadget Use in Children**

The number of times kids at RA Al-A'raaf use gadgets is going up. Kids use gadgets not only in class, but also when they're not there. They have lots of chances to use gadgets, so many of them do so without paying attention to the time. Not only are gadgets used to learn online, but they are also often used to play games with friends. During the pandemic, many kids spend their time playing with gadgets. Some kids can't help but use gadgets. Most of the time, their parents are busy at work, so they give them access to gadgets. Some kids are still within reasonable limits when they use technology. Usually, these kids are watched over. If kids use gadgets all the time without paying attention to the time, they will become addicted to them. Observations in the form of field notes (CL) show that this is true. Every day, parents tell teachers about their kids' long-term use of electronics outside of school hours. Some kids may find it hard to be told what to do when they use gadgets, so parents need to show them how to do things so that their attitude and behaviour can change. Based on the results of the above interviews, we can say that both before and after online learning, children use their gadgets more than they did before. This can be seen in the table below.

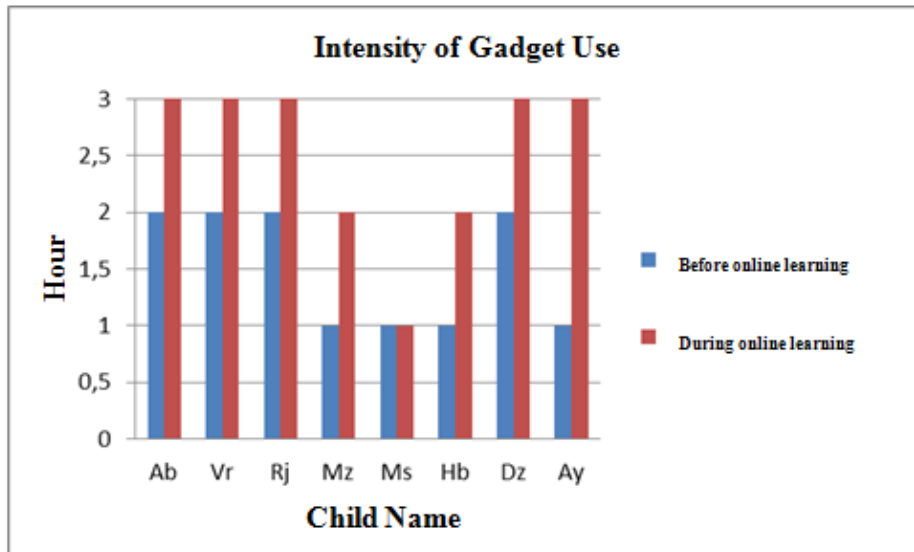
**TABLE 1**  
**THE INTENSITY OF GADGET USE BEFORE ONLINE LEARNING**

Respondent Code	Duration per day	Often/Seldom/Not too much
Ab	1 to 2 hours	Seldom
Vr	1 to 2 hours	Seldom
Rj	1 to 2 hours	Seldom
Mz	1 hour	Seldom
Ms	1 hour	Not too much
Hb	1 hour	Seldom
Dz	1 to 2 hours	Often
Ay	1 hour	Seldom

Source: data proceed

Observations and interviews show that the amount of time kids spend on gadgets has increased both before and after online learning. This means that many kids use gadgets both in class and outside of class. The average amount of time kids spend playing with gadgets is between one and three hours. For every one person who plays for one hour, there are two kids, and for every one to three hours, there are four kids. This is because parents have told us that some of them have to work, so some kids get gadgets from their parents. Some kids have been using gadgets a lot lately because they have to stay home because of the pandemic, so they get bored easily. with boring things to do. This is the most important thing that affects how much people use their devices before and after online learning. The picture below shows how much people use their gadgets:

**FIGURE 1**  
**THE INTENSITY OF GADGET USE**



Source: data proceed

From the graph above, we can tell that kids use their devices more often and for longer periods of time before and after online learning. When you use a device for more than 120 minutes a day and more than 75 minutes at a time, this is called “high intensity.” Also, a day can be used more than three times, and using gadgets for 30-75 minutes at a time can lead to gadget addiction. Also, the use of devices with moderate

intensity if you use them for more than 40–60 minutes per day and the intensity of use in one use 2-3 times per day for each use. People worry that more people will become addicted to their gadgets as they use them more and more. Attention deficit disorder and hyperactivity are more likely to happen in people who are addicted to gadgets.

### The Effect of Gadgets on Children

Gadgets have a big effect on the way people live. During this pandemic, gadgets have become a way to help people learn online at RA Al-A'raaf. Now, not only can parents use gadgets, but kids are also more comfortable with them. There seems to be a rise in the number of young children who use gadgets. Many young children spend their time with gadgets. Using gadgets isn't always bad for kids, as long as they're used right. For example, they can help kids learn online, make it easier for them to talk to each other, and teach them more. But too much use of electronic devices by kids can make it hard for them to concentrate and make them more dependent on adults for things they should be able to do on their own. This is clear from the fact that teachers remind both kids and parents every day to use gadgets for what they are meant to do (Cl.3 P.2 Kl.3).

Because of the pandemic, more and more kids are getting hooked on gadgets, which is bad for their growth and development. As usual, teachers and parents work together to keep an eye on how kids use gadgets at home and abroad. The teacher hopes that parents will limit how much their kids use gadgets in class and outside of class. Gadgets can be used as well as possible because, in addition to talking, playing games, and other things, they can also be used for educational activities. In this case, parents play a very important role in making sure that gadgets don't just hurt children, but also help them in some ways.

Observations, interviews, and written records show that kids' constant use of gadgets can change their lives. Gadgets can be helpful if you know how to use them right, but they can also have both positive and negative effects. Using gadgets has some good effects, like making online learning as an educational tool easier and making communication easier. The bad effects are that kids have trouble focusing, their health is affected, and they don't want to hang out with other kids. The following table shows the good and bad effects of gadget use on the people who answered the survey:

**TABLE 2**  
**POSITIVE AND NEGATIVE IMPACTS OF USING GADGETS**

No	Code	Positive Impact	Negative Impact
1.	Ab	Easy Learning	Prefer to be alone
2.	Vr	Getting to Know Technology	Don't know the time
3.	Rj	Facilitate the learning process as an educational tool	Difficulty concentrating, easy anger
4.	Mz	Innovate	Difficult to concentrate
5.	Ms	Getting to know new things	-
6.	Hb	More innovation	Difficult to focus/concentrate
7.	Dz	Creativity	It's hard to rest
8.	Ay	Innovate	Difficult to concentrate

Source: Data Proceed

From the table above, you can see that children's use of electronic devices can be both good and bad. Parents can keep an eye on and give instructions so that electronic devices are used for what they were made for. When it comes to education, devices have a big effect on people's lives, even on kids. From a psychological point of view, childhood is a golden time when kids learn what they don't know. Children's growth will be slowed down if they have a hard time as kids because of gadgets, because early experiences have a big effect on later growth. Also, children often use "What You See is What You Get" without realising it. Also, gadgets have both good and bad effects. The good effects include: 1) Developing

imagination (by seeing pictures and drawing what they see in their minds); 2) Training intelligence (by making learning easier); 3) Increasing self-confidence (because a child will want to finish a game if they win it); and 4) Developing skills in reading, math, and problem-solving (in this case the child will arise the nature of curiosity about something that will make the child aware of the need to learn by himself without being forced).

## CONCLUSION

Based on what researchers have found, gadgets have a big effect on life and on children. Gadgets can have a positive effect as long as they are used and allowed to. On the other hand, gadgets can have a negative effect if they are not supervised and their use is not limited. Using gadgets at RA Al-Araaf has a positive effect on learning, getting to know technology, and being more creative and innovative. On the other hand, letting them use gadgets for as long as they want makes them prefer to be alone, not know the time, have trouble focusing, and get angry easily. During online learning, kids use their devices more often and more often. On average, kids use gadgets for three hours a day. People worry that more people will become addicted to their gadgets as they use them more and more. Attention deficit disorder and hyperactivity can get worse when someone is addicted to gadgets. This is something that needs to be thought about as much as possible.

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