

# CHAPTER I INTRODUCTION

## 1.1. Background

Technological developments in the modern era have had a significant impact on various aspects of human life. Advances in digital technology have not only changed people's mindsets but also shifted social behavior, from adults to children. Various technological innovations have been created to simplify human activities, making digital devices an inseparable part of daily life. One concrete example of this development is gadgets, which have now become a primary necessity in modern society.

Generally, gadgets can be understood as electronic devices with specific functions to assist human activities. Gadgets are designed with continuously updated technology to offer convenience, efficiency, and an engaging user experience. Gadgets are no longer merely communication tools, but also function as entertainment, work media, information sources, and even learning tools. They come in various forms, from smartphones and laptops to tablets and computers to digital cameras (Pratama & Putra, 2019). This ease of access has made gadgets increasingly integral to everyday life, including among children.

In the context of child development, the family environment is the primary foundation for the formation of social behavior. Children learn to recognize norms, customs, and social interaction patterns first through their parents, before eventually developing them through school and community environments. However, the increasing use of the internet and digital technology among children raises concerns. Children are a group that adapts very quickly to digital devices, but this makes them more vulnerable to excessive gadget use. Entertainment features in gadgets, such as games, videos, and interactive apps, often lead children to spend more time in front of screens than directly interacting with their surroundings. A questionnaire survey found that 41.9% of respondents stated that their children interact less with their surroundings due to gadget use.

Excessive gadget use can have several negative impacts. Public health information reviewed medically by Dr. Carla Pramudita Susanto through HelloSehat explains that excessive gadget use can potentially cause vision problems, disrupted sleep patterns, lack of focus, gadget dependency, headaches, poor posture, impaired growth and development in children, and several other risks when using gadgets during outdoor activities. (Hello Sehat, 2024). The World Health Organization recommends that children aged 5–17 years limit their daily screen

time to prevent excessive screen time. The American Academy of Pediatrics states that children aged 6–18 years old need approximately two hours per day for optimal (Indra Sumantiawan et al., 2024). Other research also shows that excessive gadget use can have significant physical and psychological impacts, such as reduced physical activity, emotional disturbances, difficulty controlling themselves, decreased social interaction, and decreased focus and motivation to learn (Ariston et al., 2018).

While gadgets offer significant benefits, especially in educational contexts, such as facilitating access to learning materials, communicating with teachers, finding additional resources, and building learning motivation through digital platforms, uncontrolled use actually creates new problems. The social environment and peer influence also encourage children to continue using gadgets, making parents feel the need to go along with the flow to prevent their children from feeling left behind. The lack of rules on gadget use at home allows children to access digital devices more freely without supervision. Furthermore, gadgets also make it easier for students to submit assignments, find additional resources, and increase learning motivation through more engaging learning experiences.

This phenomenon is reinforced by national data showing that gadget use among Indonesian children has reached an alarming level. A survey by the Indonesian Child Protection Commission (Tempo.co, 2020) revealed that approximately 76.8% of children use devices outside of school hours, with the majority using them without parental supervision. A report (UNICEF Indonesia, 2023) shows that children in Indonesia spend an average of 5.4 hours a day using the internet, exceeding the ideal time limit for their age. Although most parents have established rules for gadget use, few children actually comply, leaving the risk of addiction and negative impacts on child development high.

Based on questionnaires distributed to several parents, the majority of respondents stated that they have implemented restrictions on their children's gadget use, either through duration rules or monitoring usage. However, various negative impacts persist, such as impaired learning focus, anger when gadget use is restricted, reduced interaction with the surrounding environment, and late bedtimes, indicating that these restrictions are not fully effective in preventing the impacts of excessive gadget use.

This situation emphasizes the importance of increasing parental understanding of the dangers of gadget addiction and appropriate support strategies. Parents play a crucial role as controllers, educators, and guides in children's use of digital technology. A lack of parental understanding increases children's risk of addiction, decreased concentration in learning, and

reduced social skills (Sihotang & Manalu, 2024). Therefore, educational media that can convey information clearly, concisely, and engagingly is needed.

Motion graphics were chosen as a relevant medium for conveying educational messages to parents because of their ability to explain complex information through animated visuals, text, illustrations, and audio, harmoniously combined. Motion graphics can simplify messages into easier-to-understand displays, allowing information to be absorbed more effectively. With dynamic visuals and engaging delivery, motion graphics can more realistically demonstrate the impacts of gadget addiction and raise parental awareness. (Sayuti et al., 2022).

Furthermore, motion graphics can be a flexible and efficient learning tool, enabling parents to understand the risks of gadget use and provide supervision strategies that can be implemented at home. This medium has the potential to increase parental involvement in setting limits on gadget use, fostering healthy digital habits, and strengthening family communication. Previous research has shown that the use of motion graphics as an educational medium has been proven to capture audience attention and effectively convey messages.

Based on this, this study focuses on designing educational media in the form of motion graphics aimed at parents as a means of providing information about the dangers of gadget addiction in children. Through a communicative and interactive visual approach, this media not only conveys the impacts of excessive gadget use but also provides parenting tips and guidance on managing children's gadget use in a healthy and balanced manner. Thus, this research is expected to raise parental awareness, strengthen their role in supporting their children, and help create a healthy, wise, and supportive digital environment for children's growth and development.

## **1.2. Problem Identification**

1. Based on the results of the questionnaire, as many as 41.9% of respondents stated that children interact less with their surroundings due to the use of gadgets, so that excessive use of gadgets in children has the potential to hinder the development of children's social interactions.
2. Data (UNICEF Indonesia, 2023) shows that children access the internet for an average of 5.4 hours per day. This duration exceeds the recommended screen time for school-age children, indicating excessive gadget use among children.
3. Based on the results of a questionnaire with 62 parents, restricting children's gadget use has not been fully effective, as negative impacts such as impaired focus, irritability when

restricted, lack of social interaction, and late bedtimes persist. This indicates that the restrictions have not been balanced with optimal parental guidance and supervision.

### **1.3. Problem Formulation**

How to design educational motion graphic media that can increase parents' understanding of the impact of gadget addiction on children through the presentation of visual information, examples of gadget usage behavior, and appropriate guidance at home?

### **1.4. Problem Limitation**

1. The main target of this media is parents, as the parties who guide and supervise children aged 7-9 years (elementary school class) in using gadgets.
2. Motion graphic videos are focused on educating parents about the information they need about the dangers of gadget addiction in children, and are equipped with parenting tips and methods to direct children to healthier and more beneficial alternative activities.
3. Motion graphic design by combining 2D animation techniques and the use of sentences that are light and easy for parents to understand.

### **1.5. Design Objectives**

1. To increase parents' understanding of the impact of excessive gadget use on reducing children's social interactions, so that parents are encouraged to direct their children towards social interactions and activities in the surrounding environment.
2. To increase parental awareness about the high duration of gadget use in children based on (UNICEF Indonesia, 2023), so that parents understand the importance of healthier screen time management.
3. To provide educational motion graphic media that provides information on the dangers of gadget addiction as well as parenting guidance in directing children to healthier alternative activities, so that parents' efforts to reduce the negative impacts of gadget use become more effective.

### **1.6. Benefits of Design Results**

1. For Parents

Provides information and understanding regarding the negative impacts of gadget addiction on children, as well as parenting guidance to support children and guide them toward

healthier and more beneficial activities.

2. For Children

Supporting the creation of more balanced daily activity patterns through more conscious, focused, and informed parental guidance.

3. Educational Institutions

To serve as an educational medium that can be used as a supporting tool to provide information about the dangers of gadget addiction in children and the role of parents in supporting them.

### 1.7. Design Framework

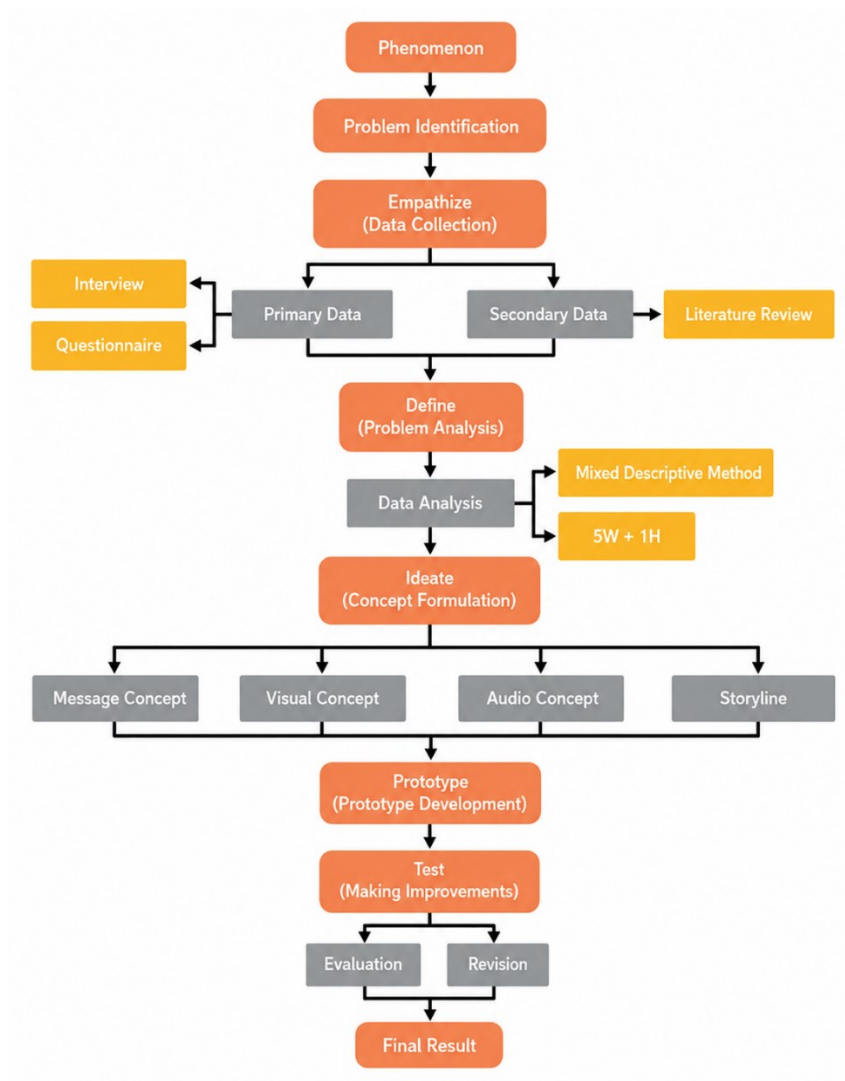


Figure 1. 1 Frame of Mind  
(Source: Personal Document)