

CHAPTER I

INTRODUCTION

1.1. Background

In today's digital era, communication technology has seen significant advancements. These developments can also change people's perspectives on everyday life, especially gadgets. Smartphones and tablets have become one of the most widely used devices by various groups, including children. The presence of gadgets has had various positive impacts on children, such as facilitating learning, making it easier to access information on the internet, introducing new vocabulary, and simplifying communication with family. While gadgets can provide positive benefits for children, excessive use can also have negative impacts. According to (Panjeti-Madan & Ranganathan, 2023), excessive gadget use in children can lead to gadget addiction, increased stress levels, lack of physical activity, sleep deprivation, emotional distress, relationship problems, and behavioral problems.

Gadget and internet usage in Indonesia has recently been very high. According to (We Are Social, 2024), the average duration of internet usage per day in Indonesia is 7 hours and 38 minutes, ranking 12th out of 49 countries. The average duration of internet usage in Indonesia is also higher than the global average of 6 hours and 40 minutes. Furthermore, based on the National Socio-Economic Survey (Susenas) conducted by the Central Statistics Agency, the percentage of mobile phone use among early childhood in 2020 was 29.03%, while in 2021 it increased to 35.70%, in 2022 it decreased to 33.44%, then in 2023 the percentage of mobile phone use among early childhood increased again to 38.92%, and in 2024 it became 35.57%. The percentage of internet use among young children has also continued to increase annually, reaching 12.04% in 2020, 20.69% in 2021, 32.17% in 2022, 32.17% in 2023, and 39.71% in 2024. These percentages indicate that gadget and internet use among young children tends to be high.

According to radarsurabaya.id (Rahmat Sudrajat, 2024), data from the psychiatry and adolescent clinic at Menur Mental Hospital indicates an increase of up to 3,000 child and adolescent patients undergoing therapy for gadget and online game addiction. These patients are predominantly inpatients. According to Dr. Ivana, children with gadget

addiction typically exhibit deviant behaviors such as emotional, impulsive, and aggressive behavior. Treatment generally takes one to two weeks.

Based on a survey conducted by the Indonesian Child Protection Commission (KPAI, 2020), in 2020, 71.3% of children owned personal gadgets. This indicates that the majority of children in Indonesia have had access to gadget technology from an early age. Furthermore, 79% of these children are allowed to use gadgets for purposes other than learning. Children's gadget use encompasses a variety of activities, and the activities children frequently access through their gadgets, without parental knowledge, include: 71.6% for searching for information, 60.4% for watching YouTube videos, 59% for playing games, and 45.8% for chatting with friends. This indicates that children's gadget use is not limited to learning activities. However, the role of gadgets as a learning tool seems to be overshadowed by the large amount of time spent on other activities. Furthermore, the survey also showed that the duration of gadget use among children is quite high. 25.4% of children use gadgets for more than 5 hours per day for purposes other than studying, while 34.8% of children use gadgets for 2-5 hours, and the rest use gadgets for less than 2 hours for purposes other than studying.

In addition, according to interviews and surveys conducted with parents of children aged 6-8 years, it shows that most children have used gadgets almost every day. The results of the questionnaire obtained from 50 respondents showed that 26% of children always use gadgets every day, 38% of children often use gadgets every day. Furthermore, according to the survey conducted by the author, children mostly use gadgets for these 3 things, namely 80% of children use gadgets to watch YouTube, and 72% of children use gadgets to play games, and only 62% of children use gadgets to study or look for lessons.

The data shows that gadgets have become an inseparable part of everyday life. Most children spend considerable time using their gadgets for various purposes. However, according to Sari and Mitsalia (in Widya, 2020), gadget use lasting more than 120 minutes per day is considered high intensity. Furthermore, using gadgets more than three times a day for 30-75 minutes can lead to gadget addiction. Optimal gadget use is less than 30 minutes per day, with a maximum of two uses.

Gadget use is indeed inseparable from everyday life as time goes by, including for children. Therefore, we cannot completely prohibit gadget use in children. According to (Fitriansyah Rahmatullah et al., 2024), children need to be educated about the dangers of excessive gadget use so that children will not become addicted to gadgets and can use

gadgets wisely and avoid the negative impacts of gadget use. In addition, children also need to be educated about other things, such as the impact of gadgets on health, other activities that replace gadgets, and the positive impacts of gadget use. Gadgets also have various positive impacts, such as, according to (Riski et al., 2023), the positive impacts of gadget use include increasing knowledge due to easy access to information, facilitating communication, and fostering creativity. In addition, the results of a survey through a questionnaire conducted by the author showed that the average knowledge of children about gadgets is quite low. Of the 50 child respondents, for the gadget knowledge test, the average score obtained was 61.7. Therefore, education on gadget use for children is very necessary.

There are many learning media that can educate children about gadget use, including picture books and story books. *pop-up*, AR book, *lift the flap book*, activity books, board games, and so on. The media chosen in this design is a pop-up book. A *pop-up* is a book that contains interactive elements when opened, as if an object appears from inside the book (Hanifah in Romadhona & Solicitor, 2020). Other sources say that the *pop-up book* is a book that has moving or three-dimensional elements, which provides an engaging visualization of the story, with displays and images that can move when the pages are opened (Erica & Sukmawarti, 2021). A *pop-up* has various advantages when compared to other learning media. According to (Meng et al., 2024), the pop-up book has characteristics that are exciting and fun for children. A pop-up book appeals to children because it has a play element that makes reading more enjoyable. A *pop-up* can make children interact with the pages of the *pop-up* book that can move, so that the *pop-up book* can be more engaging than regular books. Furthermore, according to (Fasih Daswananda & Fathoni, 2024), pop-up books can also develop children's fine motor skills and creativity. Furthermore, the physical elements of pop-up books can also encourage children to be more active.

A pop-up book also has various forms. pop-up book using various movement elements such as folds, stretches, and flips that can hide various information on the same page. The content is more diverse, intuitive, and lively, leaving a deeper impression on the reader (Zhou Yinghao in Meng et al., 2024). Furthermore, according to (Meng et al., 2024), pop-up books can stimulate various sensory needs in children, and can more effectively stimulate children's motivation to read. Furthermore, a previous survey conducted by the author showed that 80% of children had never seen a pop-up book, 80% of children found

pop-up books very interesting, and 80% of children agreed and wanted to read pop-up books that contained educational information about gadget use.

According to the book grading guidelines (Book Center et al., n.d.), a story pop-up book is suitable for early readers, namely readers with levels B1 to B3. According to the guidelines, readers with level B1 are children aged 6-8 years, while readers with level B2 are children aged 7-9 years, and readers with level B3 are children aged 8-10 years. So the use of a pop-up book can be used for readers at levels B1 – B3. However, in order for the message conveyed in the book to be more effective, it is best to convey the message to children as early as possible, so the *pop-up book is used*. This can be aimed at children at level B1 or B2. The reason why the B2 reading level can be included is because children at level B1 are often not yet fluent readers, while children at level B2 are generally more proficient in reading.

Furthermore, the introduction of an illustrated pop-up book can help develop positive habits in children, such as a love of reading and an appreciation for print media. Furthermore, books can be a learning tool that strengthens the bond between children and parents, as reading together creates more meaningful interaction moments than playing *gadget* individually. Storybook planning *pop-up* as education aims to provide children with an understanding of the importance of reducing the use of *gadgets* in their daily lives, and encourages them to engage in more creative activities. According to Piaget's theory on the cognitive development of children aged 7-12 years, as stated by Halim & Munthe in Al Hadad Firmansyah & Romadhona, 2022, "children's cognitive development begins with concrete thinking and moves towards abstract thinking. This means that at this age, in the process of absorbing existing information, children are still assisted by real objects and events they see and experience." Therefore, storypop-up books are an educational media that is suitable for educating children about the importance of reducing the use of *gadgets*, because it contains narrative and visuals that can make it easier for children to understand the message conveyed in the book. Three-dimensional elements and images move as the pages of the book are opened. A *pop-up* can also make the reading experience more enjoyable for children. The experience of reading with a pop-up book. It is hoped that it can help educate children so that they can reduce children's dependence on *gadgets*.

Based on observations at the Gramedia bookstore, no books on gadgets were found. Furthermore, the author's internet searches revealed only a few children's books with addiction themes. *gadget* in the form of picture story books and activity books, and no

children's books with an addiction theme have been found yet. In addition, based on the results of interviews and questionnaires with children aged 6 – 8 years, they are more interested in pop-up books. In addition, previous research from (Rahmawati & Nisak, 2024), using illustrated books as educational media for gadget use for children aged 4-6 years, and research from (Raisa Harjita, 2024), using interactive participatory media, peek-a-boo, and interactive games.

1.2. Identification of problems

1. Gadget use among children is increasing and becoming more frequent. A survey conducted by the author through a questionnaire distributed to children aged 6-8 years old found that 26% of children always use gadgets every day, and 38% often use gadgets every day. Furthermore, interviews with parents and children aged 6-9 years old revealed that they also use gadgets for 2-3 hours a day.
2. A survey found that children aged 6-8 years old still lack knowledge about gadget use. Of the 50 respondents to the knowledge test, the average score was 61.7, which is not a good score and indicates a lack of knowledge about gadget use, particularly regarding the impact of gadget use on children.
3. Lack of interesting educational media about the dangers of addiction and the fun of exploring information using pop-up illustration books is more meaningful than playing with *gadgets* independently. From the author's observations through internet searches, no children's book titles have been found on the theme *gadget* who use the features *pop-up*. Therefore, there is a need for interactive educational media such as pop-up books that can attract children's attention and increase their enthusiasm for reading.

1.3. Problem Formulation

How to design a storybook *pop-up* as an educational medium for use, which is interesting and educational for children aged 6 – 8 years?

1.4. Problem Limitations

1. Storybook planning *pop-up*. This will focus on education regarding the use of *gadget* who is wise in children.

2. This design uses a children's story book with features, such as *pop-up*, to make it easier for children to understand education about the use of *gadgets*, which is conveyed in the book.
3. Target audience for storybook design *pop-up*: These are children aged 6 - 8 years.

1.5. Planning Purpose

1. Providing education about the wise use of gadgets for children aged 6-8 years with interesting learning media.
2. Supporting the role of parents and teachers in teaching digital literacy to children.

1.6. Benefits of Planning Results

1. Adding learning media and educational tools regarding the use of gadgets by children.
2. Can help educate children about the wise use of gadgets
3. An Interesting *Pop-up book* Media can make children more interested and enthusiastic about reading books, imagining, and thinking critically.
4. Providing a fun and interactive learning experience

1.7. Planning Framework

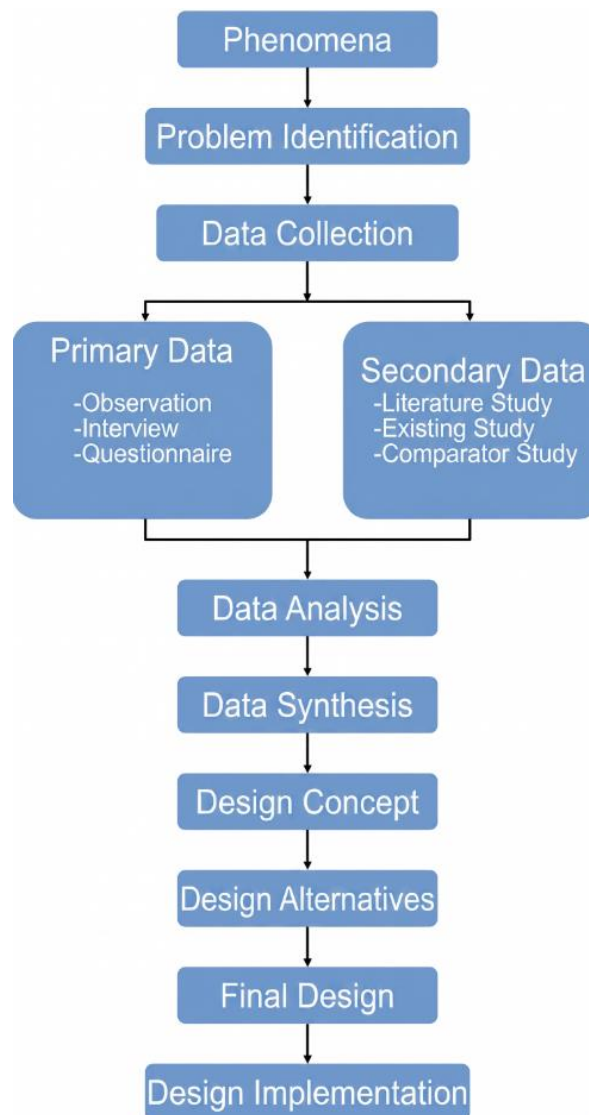


Figure 1.1 Planning Framework
(Source: Personal Document)