

CHAPTER I

BACKGROUND

1.1 Background

Early childhood is the nation's future generation, and it is everyone's responsibility to help shape this generation into a resilient, intelligent, creative, and productive one. All stakeholders must ensure optimal child growth and development in all areas. A nation's capacity to produce a resilient, intelligent, and imaginative generation is crucial. Providing quality food is one program that helps the nation create a resilient generation. Almtsier, dkk (Yeni,2020) say that :

“Dietary patterns are an effort to regulate the amount and type of food with an overview of information including maintaining health, nutritional status, preventing or helping to cure diseases and consumption of nutrients is a factor that directly influences nutritional status”.

Food that has undergone minimal processing and is closer to its original form is referred to as “real food,” free from chemical additives, artificial sweeteners, and preservatives without much modification. This idea arose because people are consuming more processed foods that often contain added sugars, preservatives, and additives. Knowing the importance of a nutritious diet for long-term well-being, real food is often easier on the body and richer in vitamins, fiber, and nutrients. Concerns about the environmental impact of food production, sustainability, and the organic movement are all impacting today.



Figure 1. 1 *Realfood*, 2024

(Source: <https://images.app.goo.gl/cKcTf6etEm8WXs41A>)

Real food is defined by its integrity, its natural state, and its absence of extensive processing. According to an article by Bakrie University, it involves limited or no additional ingredients, high nutritional content, and a focus on food quality. Fruits, vegetables, whole grains, unprocessed meats, and fresh dairy products are some examples. There are three important reasons for consuming real food: first, real food contains various essential elements the body needs, including vitamins, minerals, fiber, and antioxidants. Second, natural sugar levels are usually lower in real food than in processed foods, for example, real fruit is naturally sweet. Third, real food usually contains less sodium, added sugar, and saturated fat than processed or fast food, so consuming it helps maintain weight.

A daily diet that provides all the nutrients the body needs is called balanced nutrition. According to the Siloam Hospitals article, balanced nutrition consumption has been regulated through the Regulation of the Minister of Health of the Republic of Indonesia (Permenkes) Number 41 of 2014 concerning guidelines for regulating balanced nutrition consumption. It should be remembered that no single type of food contains all the nutrients the body needs at the same time. To achieve a balanced diet, it is recommended to consume a variety of foods that include carbohydrates, fiber, protein, good fats, vitamins, and minerals, which are the main components needed by humans (Lim, 2024). To increase awareness of macronutrients, it is important to define carbohydrates, proteins, and fats and discuss their respective roles in maintaining body health.

Carbohydrates are a key macronutrient that serve as the body's primary energy source. Various foods, including bread, pasta, rice, fruits, and vegetables, contain carbohydrate molecules composed of carbon, hydrogen, and oxygen. Fiber is a type of complex carbohydrate that aids digestion and reduces the risk of constipation. Protein is another macronutrient necessary for the growth, repair, and maintenance of body cells. Long chains of amino acids form protein molecules found in foods including milk, meat, fish, eggs, and nuts. Protein is also used to strengthen antibodies that help the body fight infection. To meet your nutritional needs, be sure to include a variety of plant and animal protein sources.

Although fat is sometimes associated with poor health, it is actually a necessary macronutrient. Fat consists of fatty acids and is found in foods including olive oil, avocados, meat, and dairy products. The body uses fat as a backup energy source when carbohydrates are unavailable. Vitamins A, D, E, and K are better absorbed by the

digestive system when fat is present. Choose heart-healthy fats over saturated or trans fats, which increase the risk of heart disease. Examples of these fats are monounsaturated and polyunsaturated fats, found in nuts, fatty fish, and olive oil (Telemed, 2021).

In the modern era, a problem many people face is choosing junk food over real food because junk food is often cheaper and more readily available than real food, especially in urban areas. Many people prefer food that looks more appealing because they are unaware of the long-term health impacts of consuming junk food. Junk food is aggressively marketed to appear tastier and more appealing. Hu, dkk (Siregar, 2023) mengatakan bahwa :

“ At least 41 million children under the age of 5 are overweight or obese worldwide, endangering their health.

The rising obesity rate in China, which has reached 6% among children aged 0-7, is concrete evidence of this.”.

The finding that the majority of poor health conditions are caused by unhealthy lifestyles in preschool children, such as sitting for 10 hours a day, explains this situation (Neshteruk, 2020). Furthermore, children's dietary habits also affect their health. It has been observed that the amount of junk food consumed increases over time due to its popularity and easy availability. Based on preliminary research observations, 52.6% of elementary school students in Padangsidempuan City consume junk food more than five times a day, and 47.4% consume it more than twice a day. This is due to the abundance of junk food vendors around their homes and educational institutions. Approximately 15 fast food establishments can be found along the road to school. Public interest in junk food consumption is increasing due to advances in information and technology, particularly the availability of delivery services that make it easier for people with busy schedules to obtain junk food (Athavale, 2020).

Malnutrition due to junk food can lead to disorders and problems at school, including decreased intelligence in children. Junk food does not meet daily nutritional needs and can lead to immune system disorders. Long-term consumption of junk food can increase the risk of high blood pressure, cholesterol, stroke, and vascular disease. Furthermore, past junk food consumption has been linked to anxiety, stress, sadness, sleep disturbances, and dissatisfaction in children (Malmir, 2023). Other reasons people report consuming junk food as an escape include boredom and stress. However, further

research is needed to determine whether this explanation applies to children. The type of food children consume has a significant impact on how their behavior, particularly their intelligence, develops. Nutrient-dense foods support the growth and development of a child's nervous system, particularly the brain. Parents should also monitor, limit, and refrain from giving their children junk food in addition to providing them with healthy foods.

Children who frequently make food choices will face health problems. The health problems faced by children were not examined in this study (Astuti & Ayuningtyas, 2018). It is said that children who are picky eaters tend to be underweight. Toddlers who are picky eaters and lack attention have an impact on children who are accustomed to choosing food, which can lead to malnutrition and ultimately influence eating disorders in adulthood (Kutbi, 2021). Often parents consider children's eating difficulties as normal problems, so the child's problem persists and is treated slowly until it causes complications and health problems. One thing that makes children picky eaters is when parents always give in and fulfill their children's wishes, even if it means buying food carelessly. The goal is to get children used to eating what they often eat without considering their hygiene and safety (Yuliani & Anis, 2015). Therefore, in the era of globalization, effective parenting can avoid problems and improve children's quality of life in terms of competition. Appropriate parenting through therapy is one that allows children to take initiative, is not overly controlling, and respects the rights of others as well as their own. This aims to facilitate interpersonal interactions between parents and children during the parenting process (Sudargo & Aristasari, 2018).

Early childhood, as individuals still developing, is in the golden age of their lives, specifically at age 5, which is considered the fundamental starting point for the formation of character and lifelong values. Because children experience rapid growth and development during this period, it is not surprising that this period is called the golden age. Early childhood is the golden age for cognitive development, when children are more receptive to information, more easily hear, and more easily imitate their surroundings.

At this stage, a child can absorb up to 100 percent of data. Parents play a crucial role, as toddlers absorb everything they see, hear, and touch (Syahroni & Nisa, 2024). This requires parental influence. Early childhood develops and grows remarkably well in terms of knowledge, language, ethics, and emotions. Children generally have a strong interest in something and are constantly seeking ways to learn things they don't yet

know. Cartoon videos on YouTube are one type of media that children can use as a learning tool (Syahroni & Nisa, 2024).

According to Novianus (2023), animation is a collection of images combined into one, giving the viewer the impression that the images are moving. Animation has undergone significant modifications over the years. Joseph Plateau built the first animation machine in 1832, using a phenakistoscope, which used a rotating cardboard disc to display movement in a mirror.

The Indonesian animation industry has grown rapidly, particularly with the emergence of content creators who create animated music videos featuring Indonesian songs. To capture the attention of babies (Baihaqi & Nisa, 2023), they adapt popular songs into visually appealing animated formats featuring bright colors and adorable shapes. In this context, language plays an increasingly important role in developing toddlers' vocabulary.

Visual elements can work harmoniously with 2D animation in a children's narrative setting if we understand the design of 2D background illustrations and visual assets in the context of their development for application to animation. The foundation for producing graphics that not only capture the audience's attention but also effectively communicate ideas is laid by the technical procedures involved in creating 2D background illustrations and visual assets (Budiafosma & Nisa, 2023). This includes the use of graphic design software and basic concepts.

In the creative industry, 2D animation has long been the standard for films, games, and instructional videos. 2D animation is able to communicate ideas in a unique and captivating way using straightforward yet meaningful visual characters. Production saves more time because 2D animation doesn't involve the complex modeling and rendering procedures of 3D animation, and it can be produced more quickly. Production costs are lower because 2D animation requires less expertise and uses simpler software and technology than 3D animation. 2D animation often evokes nostalgia for those who enjoy old-school cartoons, with its simpler yet timeless visual style. Unique and exaggerated movements can be created more easily with 2D animation techniques than with 3D animation, which is often more challenging (Asmawani, 2024).

2D animation media usually takes the form of educational media to attract more children's attention. Children have specific times that their parents allow them to watch animation. This is evidenced by a distributed questionnaire, which showed that 56.5%

of respondents said before meals and 39.1% said before bedtime are appropriate times for children to watch animation. Therefore 2D animation offers a number of benefits. First, because it requires less technology and resources, the production costs of 2D animation are usually higher, second, 2D animation has a distinctive and unique visual appeal that can provide a more individual and artistic aesthetic. (Santika, 2024), from the results of the conclusion of the statement above, a survey was conducted that was distributed to parents, the survey results said that 48 out of 65 respondents were interested in 2D animation as an education and learning for early childhood. With 2D animation, children are more enthusiastic about learning and fun and can increase interest and memory in learning the material in the 2D animation.

1.2 Identification of problems

Based on the results of the background discussion and the results of the survey conducted by the author, several problems can be identified as follows:

- Based on survey results, as evidenced by a questionnaire, 48 of 65 adults reported that they felt that young children were already struggling to consume healthy and nutritious foods.
- Observations revealed that many 5-year-olds still did not know the types and names of vegetables.
- An interview with one 5-year-old child revealed that she had never received education about the importance of consuming healthy, minimally processed foods in her daily life. This was further confirmed by a questionnaire distributed to 65 respondents, which showed that 70.8% of respondents reported a lack of information about real food.

1.3 Formulation of the problem

The problem can be identified based on the discussion that has been explained previously, so the problem in this research is "how to design a 2D animation video about recognizing real food for early childhood learning at the age of 5 years.

1.4 Scope of problem

It is necessary to apply problem limitations to the design of this RealFood 2D learning animation in order to achieve the design's goal of simplifying and more effectively conveying information. The problem limitations are as follows.:

1. This design focuses on introducing healthy and nutritious foods to young children aged 5 years to familiarize them with a healthy diet and broaden their knowledge of both children and their parents.
2. This design does not discuss the processing of junk food.
3. The animated video was created for young children aged 5 years.

1.5 Design Objectives

The objectives of this 2D animation design are as follows:

1. To design an engaging 2D animation as an educational and learning medium about RealFood for young children.
2. To provide insight into healthy living, especially from an early age.
3. To serve as a 2D animation medium to facilitate retention of RealFood learning.
4. To provide deeper insights through a more engaging approach and packaging related to RealFood learning for young children.
5. To encourage parents to take the initiative in providing their children with more educational viewing..

1.6 Benefits of Design

1. Children
 - This 2D animation is expected to introduce young children in Indonesia to RealFood dishes, which they have previously been unfamiliar with.
 - It will increase Indonesian young children's interest and curiosity about RealFood.
2. Universal
 - The animation can raise awareness of the importance of choosing natural and minimally processed foods over processed foods through engaging graphics, thereby improving their quality of life.
3. Parents
 - Understanding the nutritional value of various foods becomes simpler with engaging visual representations through 2D animation.
 - Considering that parents live busy lifestyles and desire quick yet educational content, this 2D animation allows for more effective delivery of information about healthy food..

1.7 Design Framework

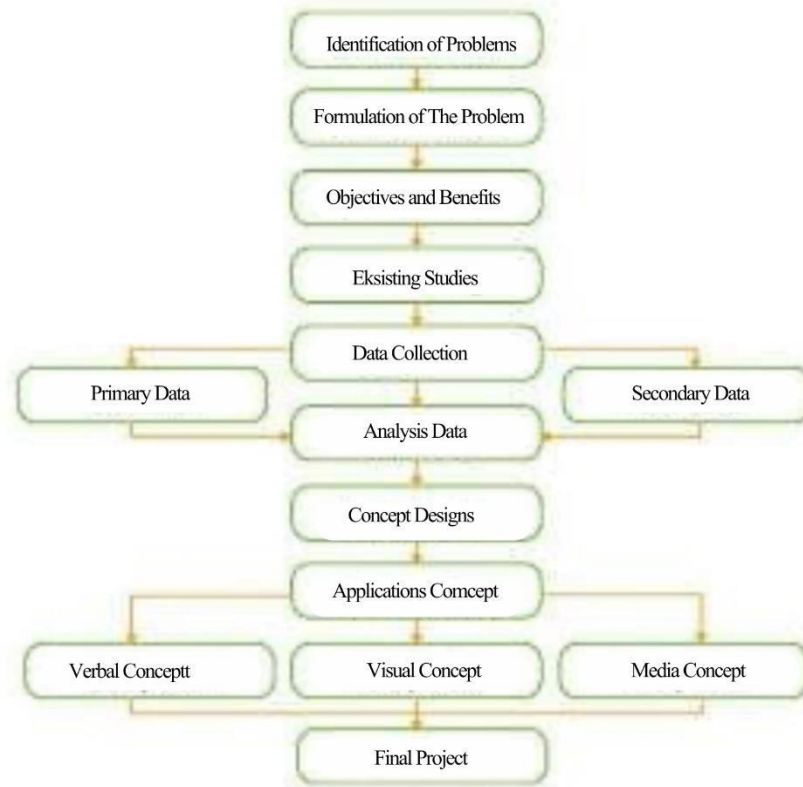


Figure 1. 2 design framework, 2024

(Source : personal documents)