

CHAPTER I

INTRODUCTION

1.1 Background

Based on data from the Basic Health Research (Riskesdas) in 2013 and 2018, there has been an increase in the prevalence of smokers aged 10-18 (Kementrian Kesehatan RI, 2018). Riskesdas data in 2013 stated that the prevalence of smoking in the population aged 10-18 was 7.2%. Furthermore, Riskesdas in 2018 experienced an increase of 1.9% to reach 9.1%. Meanwhile, the target of the National Medium-Term Development Plan for 2023 is 5.4%. Therefore, there is a need for strategies to control the use of tobacco products, especially among teenagers. The increase in the number of tobacco users among teenagers is further supported by research findings from The Global Youth Tobacco Survey (GYTS), which serves as a global standard for systematically monitoring youth tobacco use (smoking or smokeless). The GYTS results in Indonesia in 2014 showed a prevalence of 18.3% of current cigarette smokers, and there was a slight increase in the survey conducted in 2019, reaching 19.2% of current tobacco smokers (World Health Organization & Asia, 2019; World Health Organization & Asia, 2015). This increase in percentage causes significant health problems among young people, including an increase in the number and severity of respiratory diseases, a decrease in physical fitness, and a potential effect on lung function. The education sector plays an important role in providing education to school-age children to provide health knowledge that will change students' health behavior so that students will decide whether to smoke or not after knowing the effects of smoking.

Health literacy refers to a person's ability to obtain health information to maintain his health for a better quality of life. Health literacy is an important component to guarantee healthy behavior which is a determinant of health and quality of life (Nurjanah & Mubarokah, 2019). According to Nutbeam & Lloyd (2021), health literacy refers to the literacy and numeracy skills that empower individuals to access, understand, and use the information to make decisions and take actions that affect their health status. Health literacy represents the cognitive

and social skills that determine an individual's motivation and ability to access, understand, and use the information for making appropriate health decisions in a way that promotes and maintains good health (Jafari et al., 2021; Nutbeam, 2000).

The definition of health literacy has recently been expanded to include the cognitive and social skills that determine motivation and individual ability to access, understand, and apply health information to make judgments and make decisions in everyday life about health care, disease prevention, and health promotion to maintain the quality of life. People who are health literate are more likely to obtain sufficient health information from a variety of sources, and less likely to have risky smoking habits, drink alcohol regularly, and exercise less, and in turn, are more likely to report good self-assessments of health. Limited literacy is frequently linked to well-established social factors affecting health, such as employment status and lifetime income (Nutbeam & Lloyd, 2021).

The most common factors associated with limited health literacy are educational level, age, income, socioeconomic background, and media/digital communication channels (Jafari et al., 2021; Rajah et al., 2019). Every day, people make decisions about their health, including what to eat, whether to see a doctor, when to read about symptoms of a specific illness, how often to exercise, and whether to smoke. People need to understand how to read labels on food and medicine, locate the closest health facility, communicate their symptoms to healthcare specialists, comprehend insurance forms, and pay medical bills to maintain their health.

According to Nutbeam (2008), the evaluation of individual health literacy encompasses several key aspects. Firstly, it involves assessing a person's capacity to access specific health information from diverse sources and discern between them effectively. Secondly, it entails gauging the individual's ability to comprehend and personalize the health information they have acquired. Finally, it involves determining whether the person can appropriately apply the relevant health information to their benefit. By measuring these elements, we gain a comprehensive understanding of an individual's health literacy and their potential to make informed decisions and take action to improve their well-being. Inadequate health literacy causes people to lack health knowledge, are unable to

process and use information related to health, and are unable to maintain health even though it is self-managed. In addition, people who are not health literate also contribute to poor health and are at high risk of death, inadequate and ineffective use of health, increasing costs, and health disparities (Liu et al., 2020).

The systematic review conducted by Jafari et al. (2021) was a cross-sectional and experimental study with a focus on ongoing validated measures of health literacy in students. They concluded that the majority of ongoing school students had inadequate levels of health literacy skills. Meanwhile, Vamos et al., (2020) in their article about the diversity of health literacy perspectives in Canadian, American, and German national policy concluded that health literacy is an asset that can support various health actions to improve health and well-being, prevent and better manage poor health, and can help to achieve health equity that can be achieved through the education sector. Finally, Rajah et al. (2019) in their systematic review examined the available studies on health literacy in Southeast Asian countries and estimated its prevalence in this region. In short, an urgent strategy to improve and promote health literacy in this region is urgently needed. If health literacy is considered a demonstrable set of abilities, the approach will concentrate on enhancing an individual's skills and capabilities through educational intervention (Nutbeam & Lloyd, 2021). It can be interpreted that previous research indicates a low level of health literacy that needs to be improved, especially in the education sector.

The junior high school stage is a necessary transitional period from childhood towards maturity, which is very important for the physical, psychological, and social adaptation of the individual. This crucial stage of development requires special attention to increase their health awareness to maintain their quality of life. High curiosity and desire to explore themselves make them vulnerable to choose bad behavior if not directed properly. Smoking behavior in adolescents is correlated with parents' smoking habits, gender, age, place of residence, and the influence of peers (Akel et al., 2022; Ilmaskal et al., 2022). Informing junior high school-aged students about their chances of getting cancer or any diseases as the effect of smoking could be challenging.

Considering that junior high school-aged still lack health literacy, a learning strategy utilizing learning media is required to raise health awareness, which can enhance healthy living behavior and quality of life. Media health literacy empowers engagement and directs health information resources based on the required targets. Media plays an important role in shaping and changing attitudes, thoughts, and behavior public on health issues (Nazarnia et al., 2022). Therefore, efforts are needed to explore, identify, and develop media to facilitate health literacy. The media must be interesting because innovative and interesting media will encourage students to learn (Harmawati et al., 2019).

One of the media that can support learning objectives is visual media. Visual media is known as media that involves the sense of sight. Visual media can improve memory because information related to past experiences can be collected and presented back through visual materials and messages. According to the study conducted by Halawa et al. (2022), the results of the interviews show that students are very interested in animated videos or visual media that are concise and easy to understand, such as digital comic. Many studies discuss learning media, but the development of comics as a learning medium is still small so that it becomes an interesting research material (Wicaksono et al., 2021). In this case, comic-based learning media can be developed. Comics can be developed into educational comics that can be used to help students understand the lesson (Fadhila & Widodo, 2019).

The development of comics may be an alternative solution in this case because the potential for learning to use comics will maximize the sense of sight (S. A. Sari & Harahap, 2021). Comic media enables readers to understand context and meaning through the combination of graphics with word balloons (Tarver et al., 2016). The storyline makes the message or information that want to convey easy to follow and remember (Udayani et al., 2021). Comic learning media is effective because of its ability to provide narrative related to current and future scenarios allowing for presenting health-related events as they occur or not as a result of a medical condition or disease (Whiting, 2019). Based on this background, the researcher developed comic learning media on human respiratory system material to facilitate students' health literacy.

1.2 Research Problem

Based on the background already stated, the research problem is "How can the development of comic as learning media on the human respiratory system topic facilitate student health literacy?"

1.3 Research Questions

- 1) How are the stages of development of comic as a learning media on the respiratory system topics to facilitate health literacy?
- 2) How do the experts' judge the material suitability, user experience, health literacy, visual appeal, and text quality of developing comic as a learning media in human respiratory system topic to facilitate health literacy?
- 3) How do the teachers' respond to the comic as a learning media on the respiratory system to facilitate health literacy?
- 4) How do the students' respond to the comic as a learning media on the respiratory system to facilitate health literacy?

1.4 Research Objectives

- 1) To develop the comic as a learning media that can facilitate student health literacy in the human respiratory system topic.
- 2) To analyze the experts' judgement on material suitability, user experience, health literacy, visual appeal, and text quality of the comic as a learning media to facilitate health literacy in the human respiratory system topic.
- 3) To analyze teachers' responses to the comic learning media in the human respiratory system topic to facilitate health literacy.
- 4) To analyze students' responses to the comic learning media in the human respiratory system topic to facilitate health literacy.

1.5 Operational Definition

To avoid misunderstanding this research, the operational definition is described in this study, explained as follows:

1) Comic Learning Media

Comic learning media refers to educational materials presented in the form of panels, combining visuals and text to engage and facilitate learning. The characteristic of comic learning media in each stages according to ADDIE model involved five stages: analysis, design, development, implementation, and

evaluation. The comic learning media assessed by the rubric of expert judgement, students' questionnaire, and teachers' questionnaire.

2) Students' Health Literacy

Students' health literacy is the student's ability to access health information related to respiratory health, understand the information obtained, then process it to decide benefit health. The health literacy that was proposed in this research was fundamental health literacy. Fundamental health literacy encompassed basic-level skills that enable individuals to obtain appropriate health information and utilized it in various situations. Student's health literacy in the comic is assessed by the expert through the rubric of expert judgement, and by student and teacher through questionnaire.

3) Experts' Judgement

Experts' judgement is an overview from the experts to assess comic learning media that has been developed which included the judgement to material suitability, user experience, health literacy, visual appeal, and text quality. This instrument is presented in the form of a rubric, consisting of four categories ranging from 1 to 4, each accompanied by a detailed description.

4) Teachers' Response

Teachers' response is an overview from the teachers on comic learning media that collected through a questionnaire in a dichotomy format. The statements are formulated based on various indicators, including material suitability, text quality, visual appeal, content comprehension, enhancement, information structure, health literacy, and facility. After the data has been gathered, it undergoes a calculation process to determine the percentage of agreement.

5) Students' Response

Students' response is students' opinion on comic learning media that collected through a questionnaire in a dichotomy format. The statements are formulated based on various indicators, including creativity, design, text quality, visual appeal, content understanding, comprehension, enhancement, information structure, health literacy, and facility. After the data has been gathered, it undergoes a calculation process to determine the percentage of agreement.

1.6 Limitation of Problem

Limitation of the problem of this research are:

1) Material

In this research, the material judged by the experts are limited to three aspects: the material suitability to learning outcome, suitability of the material with the learning objective, and the material depth. The material is also limited by the material that provide in Merdeka Curriculum for the topic of Respiratory system which proposed for 8th-grade students. The focus of the comic discussion is on the effect of smoking on the respiratory system lessons and the disorders caused by smoking.

2) User Experience

In this research, the user experience judged by the experts are limited to four aspects: coherence, interactivity, enhancement, and content flow.

3) Visual Appeal

In this research, the visual appeal judged by the experts are limited to five aspects: panels, character, color matching design, attractiveness, and media appeal.

4) Student Health Literacy

The focus of health literacy in this research is functional health literacy, which refers to the student's ability to obtain relevant health information and apply that knowledge to a variety of health-related activities. The health literacy judged by the experts are limited to three aspects: access, understand, and use.

5) Text Quality

In this research, the text quality judged by the experts are limited to three aspects: font size suitability, font type suitability, and font clarity.

1.7 Research Benefit

1) For Teachers

The teachers will be able to use it as a learning media in respiratory system topic and help teachers achieve learning objectives especially in preventing the smoking habit among junior high school students. The teacher will also be helped by visualization in comics so that learning will be more interesting.

2) For Students

This media is also useful to facilitate students' health literacy in respiratory system topics so that students can have a good quality of life. This media also provides students with information on the dangerous effect of smoking behavior, so students can prevent smoking behavior by being aware of the scientifically generated impact.

3) For the Researcher

Provide an overview of the advantages and limitations of developing good learning media using comic learning media and can be used as a reference in similar research with a different theme.

1.8 Research Organizational Structure

The organizational structure in this study explains the order in which each chapter is written. This research paper consists of five chapters.

1) Chapter I: Introduction

The first chapter is the introduction which consists of the background, research problem, research question, research purpose, benefits of research, limitation of research, and structure of this research paper. This is the basic chapter because this research is based on research problems and questions.

2) Chapter II: Literature Review

The second chapter is a literature review consisting of literary theory and research variable information. The description of this literature research is based on books and journals.

3) Chapter III: Research Methodology

This part is procedural. It consists of research method, research design, population and sample, operational definition, research instruments, data analysis, and research procedures.

4) Chapter IV: Result and Discussion

The fourth chapter contains the results and discussion of this research findings. This chapter discusses the characteristics of the development of comic learning media on respiratory system topics to facilitate health literacy in each stage, the expert judgement to the comic, and the response of students and teachers to the

use of comics as a learning media on the respiratory system topic to facilitate health literacy.

5) Chapter V: Conclusion, Implementation, And Recommendation

This chapter contains conclusions, implications, and suggestions that present the researcher's interpretation and the meaning of the results analysis of research findings while proposing key points that can be utilized from the results of this study.