CHAPTER 1

INTRODUCTION

1.1 BACKGROUND OF STUDY

Technology development in this 21st century has evolved in all areas of life, including education. As Gopo (2022) said, technology has become something important that can strongly influence the education environment. This phenomenon is because the utilization of technology in education raises a lot of impact on the education field, such as the process of knowledge transfer can be more fast and easy, student learning and interactivity can be increase, and the student can feel more attracted (Raja & Nagasubramani, 2018). In addition, the emergence of the term 'Digital Native' in this 21st century is familiar now to our society. The people born in this digital era are more familiar with the utilization of technology in the education field. Technology cannot be seen as something separate, but it is included as part of the child's life (Uhls, 2015). Therefore many schools have begun to facilitate students with technology. As Johnson et al. (2016) said, many schools provide and facilitate their student or teacher with the best technology in the learning process, such as Chromebooks, gadgets, tablets, and laptops. This phenomenon is because using that digital equipment can help teachers make learning activities more accessible and efficient.

Furthermore, technology development supports various innovations and creativity in developing Learning media. Learning media can attract student interest, motivate students, clarify the presentation of massage and

information, or enhance student learning processes and outcomes (Dewi et al., 2018). Therefore in the learning process of English in this 21st century, technology becomes essential to implement as a learning media. As Aminullah et al. (2019) said, implementing information and communication technology (ICT) in education is very important because it helps the learning and teaching process become more effective and efficient. Besides that, the internet plays an essential role in information and communication technology (ICT) because it can help learners to access various information needed according to the learning topic in the learning process. So it can fuelling the development of the independent attitude of students in collecting information, enhance students' curiosity, and improve student creativity in collecting information from various sources.

However, in this 21st century, the utilization of technology as learning media still lacks in the learning process. Many teachers only use textbooks as learning media because the teacher tends to implement the conventional method. The study by Sumardi et al. (2020) showed 59,17% of elementary school teachers used conventional teaching methods. The conventional method in the learning process tends to be monotonous and less fun because the learning process is only centred on teachers and only uses books as learning media (Ulya et al., 2022). It means many teachers still teach English with the implementation of the conventional method in this century. The teacher only used textbooks as learning media without using other teaching media (technology-based), which makes children feel bored and less motivated. At the same time, motivation is one factor that significantly

influences achieving learning objectives (Bela & Sari, 2020). Moreover, motivation can help student decrease their bored feeling during learning activities.

Moreover, in this 21st century, the teacher must facilitate students with the learning method to increase motivation and problem-solving ability. As Zayyinah et al. (2022) said, learning must be student-centred because the skill that students need to have in this 21st century is not only about the ability to memorize but also the ability to solve various kinds of real-life problems. Moreover, millennial children absorb information faster if educators can customize Learning media creatively and innovatively. Therefore, it is necessary to have innovation by developing English learning media that suits this 21st century using technology.

As a result, one of the alternatives that can be adopted as learning media by English teachers is games. Adopting games into the learning process in the class is known as the gamification method. This gamification method is a learning technique with game design to stimulate and form a direct interaction with students. It enables students to develop various competencies, such as curricular competence, cognitive competence, and social competence (Manzano-León et al., 2021). Despite this, technological advances in the 21st century simplify teachers in implementing games as learning media. According to Jusuf (2016), globalization causes the development of ICT to impact the development of the Games industry. This game can be adopted as a learning media in the learning process. Involving digital games in the

learning process makes the atmosphere more fun and increases learners' motivation in learning activities (Sari et al., 2015).

Furthermore, the existing innovative and interesting games raise the enthusiasm of students to learn English in the classroom. In line with this, implementing a game in English learning can reduce boredom and laziness. This phenomenon is because gamification in education makes students more motivated and focused (Azar & Tan, 2020). Moreover, using games as learning media in gamification methods can improve students' achievement in class (Aljraiwi, 2019). Increased achievement of students by using gamification methods helps teachers to improve student performance and enjoyment in the learning process (Nehring et al., 2018). This statement means that if student performance increases, then the achievement of students also be increased. In line with this, when students feel enjoyment while studying in class, they become comfortable, and it helps them easier to understand the material more.

Although games are many benefits used as learning media in the learning process, many schools still have not implemented them. Moreover, implementing games as learning media in the learning process is rarely found in Bali, especially in Buleleng Regency. Meanwhile, research conducted by Mahayanti et al. (2019) found that 90% of students at one of the primary schools in Buleleng have their gadgets and have been actively using them to play digital games. Furthermore, the game has not loaded learning content according to the applicable curriculum. It means that the student did not play a good educational game. This phenomenon showed that using games as

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learning media is still not implemented. However, the game as a learning media supports the learning system in this 21st century, which is technology-based and a learning process centred on the student.

Furthermore, this phenomenon also happened in SD Negeri 1 Astina, one of the elementary schools in Buleleng Regency. Based on the result of a preliminary interview that was conducted showed the implementation of the game as learning media is still rarely implemented. Meanwhile, this school facilitated their student with enough Chromebooks to be used as a tool in the learning activity. In line with this, based on the result of preliminary observation at SD Negeri 1 Astina showed that the utilization of technology as learning media still lacks, and the teacher only used textbooks as the main learning media when teaching English. As a result, many students lost their motivation during a learning activity, several students tended to be passive during English class, several students tended to lose their attention, and several students tended to slow response during the discussion section.

Therefore, the researcher conducted design and development research based on that phenomenon. This design and development research aims to develop website games as learning media. This learning media can be used for elementary students, especially for the 4th-grade student in the second semester. It is because games as learning media for 4th-grade students in the second semester that suit the topic in the learning module on Independent curriculum still not developed yet. Therefore, this design and development research facilitates students with technology-based learning media that can

help them participate more actively, increase their motivation, and enhance student attention during the learning process in English class.

1.2 THE PROBLEM IDENTIFICATION OF RESEARCH

Based on the background of the study, the problem can be identified as follows:

1. The utilization of technology as learning media in the classroom still lack because the teacher still implemented the conventional method. In the conventional method, the learning process only centred on teachers and used books as learning media. This learning method cannot support the learning system in the 21st century, which needs to implement technology-based learning media.

2. Games as alternative learning media are still rarely implemented during the learning process. Meanwhile, games, as one Learning media technology-based, can decrease boredom during the learning process, help students become more active in participating, increase their motivation, and enhance student attention during the learning process in the English class.

1.3 THE LIMITATION OF THE RESEARCH

Based on the problem identification, the researcher limits the research to the following:

1. The study focuses on developing and implementing a website game as a learning media in learning English for 4th-grade elementary students in the second semester.

2. The development process uses the design and development methodology with the AADIE (Analysis, Design, Development, Implementation, Evaluation) model.

1.4 RESEARCH QUESTION

The researcher decided to focus on one relevant question to address for this study, formulated as follows:

1. How to develop a website game as learning media for 4th-grade elementary students in the second semester?

2. What is the quality of the website game as a learning media for 4th-grade elementary students in the second semester?

1.5 RESEARCH OBJECTIVE

Based on the research questions, the research objective is as follows:

1. To identify the process of developing a website game as learning media for 4th-grade elementary students in the second semester

2. To analyze and evaluate the quality of a website game as learning media for 4th-grade elementary students in the second semester

1.6 SIGNIFICANCE OF THE STUDY

In this research, there are two significances of the study, namely;

1.6.1 Theoretical Significance

The results of this research development are expected to produce teaching media in the form of games to help improve the achievement of students in the teaching and learning process in the classroom. In addition, the results of this study are expected to

provide additional new information and knowledge of theories related to gamification, young learners, learning in the 21st century, and learning media. So other researchers can use it as a reference in developing the game as a learning media.

1.6.2 Practically Significance

Practically, this research is expected to deliver information to the following readers, such as:

a. **Teachers**

The researcher hopes the result of this study can help teachers raise students' motivation, interest, and participation in learning English by implementing this research development as a learning medium in the next class. To support the development of the 21st century by applying technology development in the teaching and learning process in the classroom.

b. **Students**

The researchers hope the results of this study can improve students' understanding of English learning. Provide a fun learning experience for students by utilizing technology facilities in the form of simple games. Furthermore, students also have adequate problem-solving abilities so that they can master the competencies in need for this 21st century. In addition, this game as learning media provides opportunities

for students to improve their participation, motivation, and attention during the learning process in class.

c. For the researcher and other researchers

The researcher hopes this research can provide new knowledge for its researcher about theories related to gamification, young learners, and learning in the 21st century and learning media in developing simple games as learning media that can be used by all 4th-grade students in the second semester. The researcher hopes to develop the ability to write through this research. The researcher finishes this research as one of the requirements to get the title at the Ganesha Education University, Singaraja. As for other researchers, the researcher hopes this research can be beneficial as a reference guide for the following researchers in developing simple games as a learning media for 4th-grade students in the second semester in English classrooms at elementary schools and can contribute to the community.

1.7 DEFINITION OF KEY TERM

The researcher describes the important key term in this section to provide guidelines for conducted research. There are two types of key terms, namely conceptual definition and operational definition. The explanation of those two key terms explained below;

1.7.1 Conceptual Definition

The conceptual definition is the statement of some experts related to the theories presented in this research. Several theories were used in this research, as follows:

a. **Learning Media**

According to Prasasti et al. (2019), Learning Media can convey information to stimulate students' minds, attention, interest, or feelings to achieve learning objectives effectively. In line with this, Puspitarini and Hanif (2019) said that Learning Media is a tool teachers can use to convey learning material to their students more effectively and efficiently.

b. **Young Learner**

Copland and Garton (2014) define a young learner as anyone in the primary level or school. In line with this, Syafrizal and Haerudin (2018) also said young learner can be defined as someone who studies English as a second language at elementary school, aged seven until 15 years old.

c. **Gamification**

Gamification can be defined as establishing behaviours, increasing skills, or engaging people in innovation through game mechanics or game design techniques in non-game contexts (Baptista & Oliveira, 2017). Meanwhile, gamification in education also can be defined as the use of game mechanics or game elements in the education field (Aini et al., 2019)

d. **Learning in the 21st century**

Technology development in the 21st century requires teachers to implement technology in Learning (Gajjar, 2013). Technology allows teachers to differentiate and accommodate instruction to meet the needs of their students (Harris et al., 2016). Using technology in the learning process can improve students' learning outcomes because technology can be used as learning media (Barus & Simanjuntak, 2020). Moreover, the learning process must be based on student-centred learning in this 21st century because teacher-centred learning allows the teacher to act as a 'dictator,' which is no longer appropriate to implement (Anggraeni & Yusnita, 2017).

1.7.2 Operational Definition

a. **Learning Media**

Learning media helps teachers transfer or present knowledge to students more effectively and efficiently. Therefore learning media have become important tools that need to be considered by the teacher. One learning media that can be used is learning media technology–based. In this study, Learning media with technology, a website game, was developed to assist students in increasing their participation, motivation, and attention during the learning process in class.

b. **Young Learner**

A young learner studies English as a second language at elementary school from age seven until 15 years old. In line with this, young learners also have unique characteristics, such as being disturbed by something while studying and preferring to play or have fun. Therefore, the researcher used 4th-grade students at elementary school as a subject because they are between 9-10 years old in this study. Moreover, the researcher develops a website game as a learning media considering young learners' characteristics while studying.

c. **Gamification**

Gamification is using game design or game elements in a non-game context. Gamification is also a learning method that uses games as learning media. In this study, the researcher developed a game based on the topic in the teaching module and with several gamification elements such as levels, rewards, points, challenges, or badges.

d. **Learning in the 21st century**

Learning systems in the 21st century require teachers to facilitate their students with the implementation of the learning process. Besides that, the Role of the teacher in the 21st century has changed from a dictator become a facilitator. The learning process in the 21st century is no longer centred on the teacher but more centred on the student. Therefore in this study, the researcher developed learning media using

technology (website games) that required students to be more active in the learning process with the teacher as facilitator.