

CHAPTER I

INTRODUCTION

1.1 Background of the Study

In the globalized world, English language proficiency has gained a great deal of significance. In the conventional approach, English is taught through lectures, textbooks, grammar exercises, etc. In the past, teachers have used traditional approaches to teach vocabulary skills to students, but with the progress of new teaching styles, teachers have started using game-based learning to teach their students vocabulary skills. English is not only a school subject but also an essential skill to access the vast knowledge available worldwide and communicate internationally. Thus, new methods of learning that are easy, enjoyable and effective need to continue to be created and implemented to achieve better skills of English vocabulary.

One of the basic elements of language learning is vocabulary. Vocabulary acts as the cornerstone of both communication and comprehension. Recent research highlights its importance in learning and mastering a new language. According to Rosyidah and Giyoto (2018) "vocabulary is the foundation to learn English and vocabulary is one of the components of language; there is no language without vocabulary." It signifies that a great vocabulary forms an imperative step to build a great English language exponent. Moreover, Viera (2018) states that "vocabulary knowledge is viewed as an essential tool for second language learners because a limited vocabulary in a second language impedes successful communication." These perspectives characterize vocabulary as a key component in language learning, affecting all domains of communication including listening, speaking, reading, and writing.

Digital technology is increasingly being used in education, one of which is through interactive learning games. This game is not only entertaining, but also helps elementary school children learn and improve their English vocabulary skills. National Educational Association (NEA) (2012:3) stated that "the 4 most important specific skills for teachers are critical thinking, communication, collaboration and creativity." These four abilities are very important for students to achieve so they can participate in meeting global challenges and competition in the 21st century (Dewi, 2020). By utilizing interactive learning games, the English learning process for elementary school children can be more fun, effective and conducive. Therefore, it is recommended that the learning process in the classroom use interactive learning games, especially for beginners such as elementary school students.



learning in education refers to the application of game elements ; in non-game contexts in order to make students more interested, to learn. It is the use of game design elements to make activities and immersive. Game-based learning is the process of applying such as points, badges, leaderboards, levels, rewards, and

challenges to activities for the purpose of improving engagement (Anisa et al, 2020). Various digital platforms have been created to support vocabulary learning in a fun way.

Game-based learning improves vocabulary learning due to several reasons. First, games place students in the center of attention, which facilitates engagement and concentration for learning activity. Reward mechanisms give students a sense of accomplishment and motivate them to do their best. Secondly, gamified platforms are relied on repetition, however with a twist; in gamified platforms, the repetition is periodic and the vocabulary list is presented in different formats — matching games, flashcards, timed quizzes, etc. that can help students retain information.

Educaplay is an online tool that lets educators create their own games or edit out any existing activities like crosswords, word searches, matching games and quizzes. Other platforms such as Kahoot!, Quizizz and Wordwall that provide similar tools for practice and improve vocabulary mastery through published activities that encourage collaboration and active participation. All languages primarily consist of vocabulary that is actually learned by the target language learner. The traditional approaches that use rote learning and repetitive drills for vocabulary teaching are often boring, leading to students becoming disengaged. Game-based learning also addresses this by introducing fun, interactive and competitive elements that suit contemporary classrooms.

Moreover, many gamified tools provide immediate feedback, enabling students to recognize and fix errors as they occur, thereby fostering a growth mindset and instilling self-belief. Finally, gamified activities can be adjusted to meet students' unique needs and proficiency levels.

This can be tough for students learning English as a foreign language, especially in the case of students in Makassar where exposure to English in everyday life can be limited. Educaplay can be used as it provides an engaging and entertaining way for English learners to practice their language skills. Students will be more engaged and get a positive perception towards learning English through gamified activities. Interactive learning in vocabulary instruction is a timely solution to the shortcomings of traditional modes of teaching. Its capability to increase engagement, allay retention and provide context to learning makes it a must-have for educators. In light of the potential of gamification, this study seeks to explore how game-based learning especially the Educaplay website can be integrated as an engaging and effective learning medium into the EFL classroom to optimize and enhance vocabulary learning.

The study adopted a case study approach that would provide in-depth insights into the students' experiences and perceptions on the use of Educaplay as interactive learning games for enhancing English vocabulary. Questionnaire and collected data that is used in the research to determine the impact of interactivity on the acquisition of students' English vocabulary. It is the expectation that the findings of this study will



contribution to designing more practical and entertaining means for more than that, the writer hopes this research findings can be used as tools, learning game developers, and policy makers to improve the education in elementary school.

1.2 Identification of Problems

Based on the research background above, several main problems in learning English vocabulary among elementary school students can be identified as follows:

- 1) Lack of student motivation and interest in learning
- 2) Difficulty in memorizing vocabulary
- 3) Less interesting learning media

1.3 Scope of the Problems

This research focuses on analyzing the effect of interactive games on the vocabulary mastery of English in 4th Grade at SD Inpres Unggulan Puri Taman Sari. The study aims to explore the impact of interactive educational games on students to determine its effectiveness as an interesting learning medium in enhancing students' ability to memorize and acquire vocabulary.

1.4 Research Questions

Based on the research explanation above, the writer is able to formulate two main problems to be answered as follows:

1. How effective is the use of Educaplay in improving students' vocabulary?
2. How do students perceive Educaplay as an engaging tool for vocabulary learning?

1.5 Objectives of the Study

Based on the research questions, the aims of the research are:

1. To evaluate the effectiveness of interactive educational games in improving students' vocabulary
2. To examine students' perceptions of Educaplay as an engaging tool for vocabulary learning

1.6 Significance of the Study

This research is important for language educators, curriculum developers and parents to consider in introducing and teaching English to elementary school students. This study focuses on both theoretical and practical significance.

1. Theoretical Benefits



This research can contribute to the development of language learning in the context of using interactive learning games to increase English skills. The findings of this research can enrich the literature on innovative learning methods that are effective and fun for elementary school students.

2. Practical Benefits

a. For Students

As for the result, it is expected that this research could offer other methods that may be more appealing and helpful to the students, at least in learning the English lexical items. From engaging in learning games, it is believed that students' motivation and interest in learning will improve, in addition to perimeter mastery of vocabulary.

b. For Teachers

The findings obtained from this treatment can help teachers discover new ways of assisting their students to manage learning games as tools for enhancing the teaching of English vocabulary. These finding can be used as a guide by teachers where they can develop better learning approaches and/or come up with more creative solutions that will suffice the students' learning capabilities.

c. For Schools

It will provide valuable information on how educational programs can be made more interesting, how technology and media, and interactive learning media, can be utilized in the learning process for creating interesting learning programs. This is as a result of the desirability to enhance the quality of education and students' learning accomplishments.

1.7 Previous Related Studies

To support this study, the researcher gives a concise summary of some studies that will significantly expand the researcher's current knowledge base, deepen the understanding about the study, and provide insights that will inform the analysis of this study. Patra, I., Shanmugam, N., Ismail, S. M., & Mandal, G. (2022) in their research entitled *An Investigation of EFL Learners' Vocabulary Retention and Recall in a Technology-Based Instructional Environment: Focusing on Digital Games* emphasized that digital games change the vocabulary learning experiences of EFL learners; therefore, the researchers emphasize the full capability of technology (especially digital games) in revolutionizing vocabulary learning. Digital games help improve vocabulary learning and retrieval and promote intrinsic motivation and engagement by offering a dynamic and interactive



Using a quantitative research approach and digital games as the Patra et al. aimed to provide empirical evidence on how technology abulary retention and recall in EFL learning, in adding to a larger y research. In fact, one of the common findings among studies igital games lead to better retention and recall of vocabulary al methods. This is often because games are more interactive and onal methods.

In addition, Rabu, S. N. A., & Talib, Z. (2017) investigated the effect of DGBL on students' acquisition and acceptance of English vocabulary at primary school. Data collection was based on the aim and objectives as a whole, involving pre- and post-vocabulary tests and questionnaires to measure the level of acceptance of the learners. The study was using a quasi-experimental design in which a sample of 70 students from 4th year were entered into the experimental group by using DGBL and the control group that were employing interactive multimedia learning. Results highlight that the DGBL group was more effective than the control group with regards to vocabulary, and the pupils were more open towards this form of education.

Moreover, Pham (2022) explained more specifically about the enhancement of the retention of vocabulary among learners of the English language. To do this, pre- and post-tests plus questionnaires are applied to measure the retention of the vocabulary target and the students' interest. The design of the study was a controlled experiment with participants implementing a conventional approach and participants implementing game elements. All of those results led to the conclusion that how the funnel layout influenced vocabulary recall and engagement more so than the non-game versions.

Furthermore, Vargas & Celi (2024) in their research that is based on the theory of constructivism and game-based learning, emphasize that language learning, especially vocabulary mastery, can be fostered through active interaction and enjoyable experience. The quantitative experiment adopted two groups of EFL students as experimental samples, the experimental group used the Educaplay platform for learning vocabulary through interactive activities such as quizzes, crossword puzzles and memory games, while the control group used traditional learning methods, such as memorizing. The findings revealed a marked increase in both vocabulary retention and recall among the participants in the treatment group relative to the control group, and suggested that exposure to novel learning techniques had contributed to heightened motivation and engagement in the described approaches. The results validate that Educaplay is a proper tool for enhancing English vocabulary learning, specifically through interactive and playful learning experience.

However, there are still several gaps in the literature. First, the majority of previous research has looked at broad categories of digital game-based learning but has not concentrated exclusively on the effects of Educaplay, a gamified site where teachers can develop interactive vocabulary tasks, from crosswords to word searches and quizzes, leaving a gap of research in its applicability in the primary school settings.

Secondly, most of previous studies were conducted in the context of ESL, while this study is conducted in the context of EFL (English as a Foreign Language), that is in Makassar, where students have a limited exposure to English outside of the class. This distinction is crucial as the effectiveness of gamification can hinge upon students' to the target language.



ous studies have been conducted using a quasi-experimental arison between game-based learning and traditional methods. is an experimental one-group pre-test and post-test design that : direct effect of Educaplay-based vocabulary learning on students' ion without comparing it with other modes of education.

By addressing these gaps, this study seeks to contribute to the increasing number of studies in the field of game-based learning by investigating the effect of Educaplay on students' engagement and vocabulary retention as a vocabulary learning tool in a primary school EFL context.

1.8 Theoretical Background

1.8.1 Theoretical Framework

This study is based on Game-Based Learning Theory and Constructivist Learning Theory. Game-Based Learning Theory states that the use of game elements themselves (challenges, rewards, points, competitions, etc.) can be used as a motivational tool and to increase student engagement and learning effectiveness (Anisa et al., 2020). Furthermore, Constructivist Learning Theory, as emphasized by Vargas and Celi (2024), encourages learners to actively construct their knowledge through meaningful experiences such as interactive activities and problem-solving activities. These theories are consistent with the purpose of the study which examined the impact of using digital interactive educational games on vocabulary learning among elementary English learners using the Educaplay platform. Through a dynamic and interactive learning environment, students should be able to acquire vocabulary more easily using this approach compared to traditional methods.

1.8.2 Importance of Vocabulary in Language Acquisition

One of the strongest foundations in English that all successful communication and comprehension require is a strong vocabulary. The importance of vocabulary is as follows:

- **Communication and socializing:** A rich vocabulary helps the students to speak clearly, without fear of language. With increased awareness over time, they are able to express themselves with a wider variety of vocabulary, leading to better communication across all aspects of learning.
- **Increased Understanding:** having a comprehensive vocabulary allows students to comprehend denser material and listen to more complicated lectures. Students will learn the meanings of new words from understanding their synonyms and antonyms and from putting them in context.
- **Academic Success:** Vocabulary is closely related to higher academic achievement in different subjects of study. Education is important for students so that they can comprehend instructions, evaluate information, and perform better on tests that involve understanding and writing (Nation, 2001).



as of Vocabulary Acquisition in Primary School

s essential, traditional methods for teaching it in primary school
c.

and Ineffectiveness: Letter-recognition drills and rhythmic
are uninteresting and unstimulating to the young learner's minds.

From this approach, learners only gather information and rehearse it without having to understand it, and thus, there is short-term memorization accompanied by poor long-term retention.

- **Limited Attention Spans:** As expected, young children will always have limited patience due to their young age and developing system. Boredom is quite an issue, and traditional practices that entail using many words for the purpose of teaching a particular word or engaging the learner in long and boring activities will invariably lose it, thereby slowing the rate of vocabulary growth.
- **Prior Knowledge Gaps:** To build new words, it will mostly require prior knowledge at some point to be able to build this knowledge. If students fail to have prior knowledge on the set of foundational vocabulary knowledge and skills, then they will be unable to work towards the mastery of new vocabulary meanings and contexts.

1.8.4 Advantages of integrating games in the process of education

Interactive educational games offer a compelling alternative to traditional vocabulary learning methods:

- **Stimulating and Engaging Environment:** Learning through games engage the learners conveniently and evokes the natural desire to learn on ones own. When learning is fun and seems like games, students are more responsive and possibly would participate well.
- **Interactive Elements:** Points are included in games and there is competition and challenge in games and this keeps the students alert. These elements introduce an aspect of fun in the learning process hence.
- **Active Learning and Repeated Exposure:** Games are good since they create the chance of active learning. Students come into contact with the vocabulary in a number of ways and the meaning and correct use in maintained by the activities, puzzles and challenges. Besides, games can provide multiple traces to new words which is important for reinforcement, practice, and retention.

1.8.5 Recommendations on Key Components of Best Vocabulary Learning Games

To maximize the effectiveness of vocabulary learning games for primary school students, consider these design aspects: To maximize the effectiveness of vocabulary learning games for primary school students, the writer considered these design aspects:

- **Age-Appropriate Design:** The levels of difficulty, the game's model itself, and the tasks introduced should reflect the age and mental capacity of students of Primary school.



Integration of Audio, Visuals, and Activities: It's important to review as an efficient way to consolidate new vocabulary and ensure that retain bright pictures and sounds, as well as realia and objects. It is sense that the use of the multiple intelligences assists in the element of meaning and linking of the words used to other real-life nces.

- **Targeting Different Learning Aspects:** Thus, games can be developed for different aspects of learning vocabulary, that is:
 - Definition Matching: Primary school students relate the new words with their meanings.
 - Sentence Completion: To reinforce the newly introduced words, students are required to use the words properly.
 - Contextual Understanding: Children differentiate the sense of a word from its context irrespective of the area of knowledge.



CHAPTER II

RESEARCH METHODOLOGY

2.1 Research Design

This study will utilize a quantitative approach using a quasi-experimental design by employing a one-group pretest-posttest design to determine the effect of educational games on 4th-grade students' English vocabulary acquisition. Participants will be assessed on their vocabulary knowledge before and after using the Educaplay, allowing the study to measure the impact of the games on vocabulary development.

The research was conducted in six meetings, including a pre-test and post-test. In the first meeting, the researcher introduced and gave a pre-test. A pre-test is given to assess baseline knowledge of vocabulary and educational games are introduced as the main form of vocabulary instruction. Furthermore, in the second to fifth meetings, the researcher introduced Educaplay and some basic vocabulary while observing the students' process during the treatment. Finally, in the sixth meeting, the researcher gave a post-test intervention to assess any improvement and measure vocabulary acquisition and gave a questionnaire to determine students' perceptions of the use of educaplay as a learning medium.

2.2 Population and Sample

1. Population: The population of this study was 494 students at SD Inpres Unggulan Puri Taman Sari
2. Sample: The sample for this study consists of grade 4 primary school students in SD Inpres Unggulan Puri Taman Sari. The study targets primary school students who are typically around 9 to 10 years old, focusing on their English vocabulary acquisition. Specifically:
 - Sample Size: All 29 students at 4th grade of SD Inpres Unggulan Puri Taman Sari will take part in the study.
 - Selection Criteria: Students will be selected based on criteria such as their willingness to participate and availability during the research period.

3. Justification:

- 1) Grade Level: Grade 4 is chosen as it represents a critical stage in language development where vocabulary acquisition plays a crucial role in overall language proficiency.



ocus on English Vocabulary: The study specifically targets English vocabulary acquisition, aligning with the educational goals and curriculum of primary schools.

availability: Grade 4 students are typically at a stage where they can engage with interactive educational games effectively, making them suitable participants for the study.

4. Considerations:

Confidentiality and anonymity of participants will be ensured throughout the study.

2.3 Method of Data Collection

This study is an experimental study with a single group design that uses pre-tests and post-tests. This study went through several stages: pre-test – a test designed to measure students' initial knowledge of English vocabulary – was given first. Next, it continued to the intervention stage, where students interacted with interactive learning sessions on the Educaplay platform, which provides educational games to facilitate or reinforce vocabulary learning. Following the intervention phase, a post-test is administered to measure vocabulary improvement and evaluate vocabulary retention. Additionally, a questionnaire is distributed to gather students' opinions on the use of game-based learning through Educaplay in enhancing their English vocabulary. This procedure aligns with the nature of experimental research, which aims to investigate the impact of a specific intervention—in this case, the use of Educaplay—on measurable educational outcomes.

2.4 Method of Data Analysis

Data analysis will involve the following steps:

1. Descriptive Statistics: Initial analysis will include descriptive statistics (e.g., means, standard deviations) to summarize the pretest and post test scores of the students.
2. Inferential Statistics: Student's t-test by William Sealy Gosset (1908). Formula will be used to assess whether there is a statistically significant improvement in vocabulary acquisition after the use of educational games.

The formula is: $t = \frac{\bar{D}}{s_D/\sqrt{n}}$

Where:

- \bar{D} = total of all the difference scores
- s_D = Standard deviation of the differences
- n = number of participants (29 students)

In order to determine the effect of interactive educational games on students' vocabulary, the researcher employed a student's t-test. This statistical test is appropriate to compare the means of two related groups — in this case, the same students' vocabulary test cores before and after using Educaplay. The student's t-test is used to determine the statistical significance for the mean difference between the two score sets. Analysis was performed with SPSS.



Hypotheses:

The hypotheses were formulated as follows:

- **Null Hypothesis (H_0):** There is no significant difference in vocabulary scores before and after the intervention.
- **Alternative Hypothesis (H_1):** There is a significant improvement in vocabulary scores after the intervention.

