CHAPTER I

INTRODUCTION

This chapter presents an overview of the study, including the background, research questions, objectives, significance, scope, hypothesis, conceptual framework, and previous studies.

A. Research Background

Vocabulary plays an important role in language acquisition, especially for learners acquiring a second language. Vocabulary serves as the foundation for all other language skills, as students cannot communicate or comprehend effectively without a strong grasp of vocabulary. As Nation (2001) points out, vocabulary knowledge significantly contributes to the ability to express ideas, understand messages, and engage in meaningful communication. Students who have an extensive vocabulary will be better equipped to excel in listening, speaking, reading and writing. Without sufficient vocabulary, even basic comprehension and interaction in the target language becomes difficult. This highlights the importance of prioritizing vocabulary learning in the early stages of language education.

In addition, vocabulary acts as a connecting element in four important language skills: listening, speaking, reading and writing (Alqahtani, 2015). This proves the extent to which students can achieve competence in these areas. A useful vocabulary not only facilitates comprehension and communication, but also increases students' confidence in using language. Inadequate vocabulary knowledge can lead to communication breakdowns and misunderstandings, as highlighted by Zhang (2016), who emphasized that vocabulary acquisition is essential to facilitate meaningful interactions in a second language. Therefore, vocabulary development is essential for educators who aim to improve students' language competence and overall communicative ability.

Digital learning has become an essential part of education, allowing students to access knowledge beyond traditional classrooms. It uses technology to create flexible and interactive learning environments that meet diverse learner needs.

Mayer (2009) stated that digital platforms integrate multimedia elements like text, images, and audio to enhance comprehension and retention. Garrison and Anderson (2003) noted that online learning promotes collaboration and autonomy. These platforms make education more accessible and personalized. Randall's ESL Lab is an English learning website that, in addition to its listening materials, features a dedicated section called "*Vocabulary Lessons*" for vocabulary development. The vocabulary lessons offer categorized word lists on various topics, making it a useful resource for students to expand their vocabulary independently.

The evolution of digital learning for vocabulary is closely tied to technological advances, transforming traditional teaching methods into innovative approaches like using online vocabulary tools in face-to-face learning. Clark and Mayer (2016) emphasize that effective digital learning merges instructional design with technology to enhance engagement and outcomes. Prensky (2010) argues that digital tools resonate with digital natives through interactive experiences. During the COVID-19 pandemic, digital learning gained prominence as schools relied on online education for continuity. Platforms like Duolingo, Memrise, Kahoot, and Randall's ESL Lab website showcase the potential of digital tools in enriching vocabulary knowledge and fostering language development.

Randall's ESL Lab is an online platform designed to support ESL and EFL learners in improving their language skills. Originally developed to improve listening comprehension but able to acquire new vocabulary as well, the platform offers a range of exercises for different proficiency levels, from beginner to advanced. The vocabulary lists are categorized by topic and can be used as input for students to learn new words independently. Harmer (2007) highlights that exposure to language in context is essential for vocabulary acquisition. In addition, the multimedia features of this platform, such as quizzes and recordings, engage students actively, strengthening retention and comprehension.

Interactive features are integrated into Randall's ESL Lab website, which offers a learning experience that is both engaging and meaningful. The platform includes multimedia tools such as audio recordings and quizzes, which reinforce vocabulary retention. According to Mayer (2009), multimedia-based instruction

enhances cognitive processing by combining visual and auditory elements. In addition, Hubbard (2017) points out that immediate feedback is essential for maintaining learner motivation and facilitating improvement.

Therefore, the researcher observed during teaching practice that many students struggled with learning due to insufficient vocabulary mastery. Many students face challenges in understanding English texts and constructing sentences due to their lack of vocabulary, coupled with the lack of interesting and effective teaching media. Traditional methods used in vocabulary teaching often fail to stimulate students' interest and motivation, resulting in slow progress. According to Richards and Renandya (2002), vocabulary is a core component of language proficiency and provides much of the basis for how students communicate and understand the target language. In addition, Schmitt (2010) argues that innovative and interactive learning tools are essential to support vocabulary acquisition. By incorporating technology-based platforms such as Randall's ESL Lab website, which provides contextualized and interactive vocabulary exercises, students can overcome these challenges and improve their language skills.

Although Randall's ESL Lab was originally designed to enhance listening comprehension, the platform can also assist in the development of vocabulary and the assimilation of student perceptions in a higher education context.. Miranty (2017) explored second semester students' positive perceptions of using the platform in an interpretive listening class, highlighting its effectiveness in improving engagement and comprehension. Chaikovska (2022) showed that Randall's ESL Lab significantly aided listening comprehension when integrated into structured listening pre-test, treatment, and post-test activities, especially in an online university environment. Similarly, Lestari and Sihombing (2022) found that the platform supported independent learning and vocabulary development through multilevel activities and culturally rich topics, although their study was also conducted with university students in an online classroom.

This study aims to address the existing gaps by focusing on vocabulary acquisition, implementing the platform in an offline high school setting, and using a quantitative pre-experiment method. This approach shifts from the commonly

used qualitative descriptive methodology, extending the research to younger participants in a face-to-face learning context. This study seeks to provide deeper insights into how digital platforms like Randall's ESL Lab can enhance vocabulary learning in conventional classroom environments.

B. Research Question

Based on the background above, the following research questions are formulated:

1. What is the students' vocabulary mastery before using Randall's ESL Lab website?
2. What is the students' vocabulary mastery after using Randall's ESL Lab website?
3. How significant is the students' improvement in vocabulary mastery before and after using Randall's ESL Lab website?

C. Research Objective

The objectives of this research are as follows:

1. To identify the students' vocabulary mastery before using Randall's ESL website.
2. To identify the students' vocabulary mastery after using Randall's ESL website.
3. To determine the significant improvement in students' vocabulary mastery after using Randall's ESL Lab website.

D. Research Significances

The results of this study are expected to provide valuable contributions to the following parties:

1. Theoritically

a. For Students

This study provides insights into learning vocabulary mastery through the use of Randall's ESL Lab website. Students can utilize the platform to engage with

various vocabulary lessons, which are accessible and practical for independent learning. Consequently, this investigation is anticipated to provide alternative approaches to improving the vocabulary skills of students in the context of English language acquisition.

b. For Teachers

This research serves as a useful resource for educators who aim to integrate innovative, technology-based tools like Randall's ESL Lab website into their teaching practices to improve students' vocabulary mastery. Teachers can generate vocabulary learning experiences that are more engaging and effective by integrating these digital platforms. This research aims to enhance English language teaching approaches.

c. For Future Researchers

This study can act as a reference for future researchers interested in exploring the role of digital platforms in enhancing vocabulary acquisition, particularly in EFL contexts. It provides a perspective on the process of adapting online learning tools to facilitate vocabulary development in conventional classroom environments. Hence, this study is likely to spark more research on the incorporation of technology into language teaching.

2. Practically

a. For Students

This research motivates students to improve their vocabulary mastery through Randall's ESL Lab website. It provides an interactive way for students to expand their vocabulary and enhance language skills. As a result, it is expected that this investigation will motivate students to engage in more independent and active learning.

b. For Teachers

Teachers can use Randall's ESL Lab website as an innovative tool to teach vocabulary. This platform offers a dynamic way to engage students and support their vocabulary acquisition. Consequently, it can assist educators in improving the effectiveness of their vocabulary instruction in the classroom.

c. For Future Researchers

Future research should explore the effectiveness of other online platforms for vocabulary learning. Additionally, studies can examine the long-term impact of digital learning tools on vocabulary mastery. The function of technology in supporting language development would be more comprehensively understood through such investigations.

E. Research Scope

This study specifically investigates the enhancement of students' vocabulary mastery before and after utilizing Randall's ESL Lab website. This research focuses on the use of the website as an interactive media tool for vocabulary learning. The aim is to determine whether significant improvements in students' vocabulary mastery occur before and after using Randall's ESL Lab website in the learning process.

F. Conceptual Framework

Vocabulary is one of the most essential components of language learning. Without sufficient vocabulary, learners struggle to understand, express, and interact in a second language. Nation (2001) stated that vocabulary mastery plays a vital role in supporting the four language skills: listening, speaking, reading, and writing. Furthermore, Read (2000) emphasized that vocabulary knowledge includes not only the number of words learners know (breadth), but also how well they understand and can use those words (depth). In short, a learner's success in acquiring a language largely depends on their vocabulary proficiency.

In modern language education, the use of digital media has become a valuable support for vocabulary learning. One example is Randall's ESL Lab, a website that provides categorized vocabulary lists on a variety of everyday topics. These lists serve as learning input, allowing students to encounter new words repeatedly and independently. According to Schmitt (2000), vocabulary learning requires frequent and meaningful exposure, and structured vocabulary input helps

learners retain and internalize new words. Graves (2006) also highlights that repeated exposure over time strengthens word knowledge and supports long-term acquisition

The integration of digital tools in vocabulary instruction is further supported by several learning theories. Mayer's (2001) explains that learning is more effective when students receive input in both verbal and visual formats. Although Randall's ESL Lab provides only vocabulary lists, its online format makes it easier for students to access and revisit the material. Similarly, Mahdi (2017) emphasizes that digital resources, including websites and mobile tools, can significantly enhance vocabulary learning by offering flexible, learner-centered environments.

This study aims to investigate the influence of using Randall's ESL Lab website on students' vocabulary mastery. The conceptual framework of this research outlines three main components. The **input** is the use of Randall's ESL Lab *Vocabulary Lessons* as vocabulary exposure material. The **process** involves providing treatment in the form of vocabulary learning sessions using selected lists from the website. During the sessions, students study and memorize vocabulary related to specific topics. Finally, the **output** is the improvement in students' vocabulary mastery, which is measured by comparing the results of pre-test and post-test. The conceptual framework of this study is illustrated in the following diagram:

INPUT

Randall's ESL Lab Website

PROCESS

Students were given treatment to learn vocabulary using the Randall's ESL Lab website.
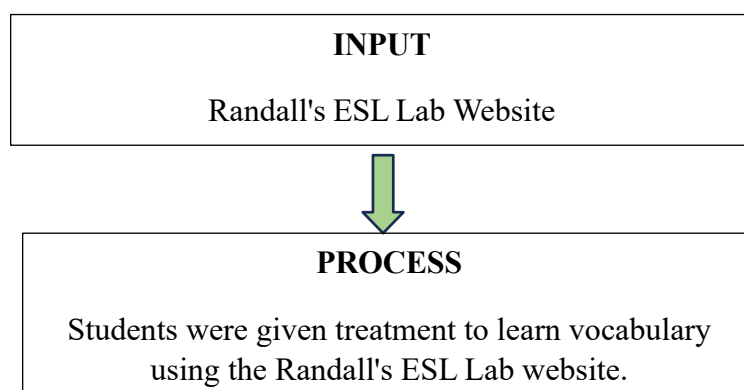
OUTPUT

Improve students' vocabulary mastery.

G. Hyphothesis

A hypothesis must be statistically tested in quantitative research to ascertain its acceptance or rejection. Based on Creswell (2012), a hypothesis is "a tentative prediction or explanation of the relationship among variables" (p. 111), and it is the foundation for undertaking statistical tests. In this study, two hypotheses are proposed: the null hypothesis (Ho) and the alternative hypothesis (Ha).

1. H_0 (Null Hypothesis): Randall's ESL Lab wesbite does not significantly influence the vocabulary mastery of senior high school students in West Java.

2. H_a (Alternative Hypothesis): Randall's ESL Lab website significantly influences the vocabulary mastery of senior high school students in West Java.

H. Previous Studies

A study by Chaikovska (2022) examined the implementation of Randall's ESL Lab website materials to enhance university students' listening comprehension skills. The findings demonstrated that 75% of the participants showed a positive attitude towards using the platform, which was effective in improving both listening skills and vocabulary acquisition. Additionally, the study emphasized the value of incorporating digital resources like Randall's Lab into EFL classrooms to meet curriculum objectives and engage students in interactive learning activities.

From Miranty (2017) explored students' perceptions of using Randall's ESL Lab website in an interpretive listening class at a university in Banten, Indonesia. The findings revealed that most students considered the platform engaging and

beneficial, as it made the listening class more interactive and intellectually stimulating. The study concluded that Randall's ESL Cyber Listening Lab could effectively support learning both inside and outside the classroom.

Lestari and Sihombing (2022) conducted a study analyzing the use of Randall's ESL Lab website as a tool to improve students' listening comprehension skills. The study employed a qualitative approach and highlighted the features of the platform, which provides graded listening activities tailored to different levels of proficiency. The findings revealed that Randall's ESL Lab website was effective in enhancing students' listening abilities and fostering autonomous learning. The study concluded that the platform could serve as a valuable resource for both teachers and students in developing listening comprehension in EFL contexts

In conclusion, this study shares some similarities with previous studies, particularly in its use of Randall's ESL Lab website as a teaching tool. However, there are significant differences in terms of focus, research design, participants, and implementation. While previous studies emphasized improving listening comprehension and examining second- semester university students' perceptions in interpretive listening classes, this study focuses on vocabulary acquisition. Additionally, whereas one of the prior studies was conducted in an online learning environment, this research will take place in an offline classroom setting. The participants also differ, as previous studies predominantly involved university students, while this study targets senior high school students. Furthermore, while the earlier studies employed a qualitative descriptive approach, this research adopts a quantitative pre-experimental method. These distinctions aim to offer new insights into the effectiveness of Randall's ESL Lab website in fostering vocabulary mastery and extend the application of this tool to different educational contexts.