

CHAPTER I

INTRODUCTION

This section provides an overview of the investigation foundation. This chapter presents the research background, research questions, objectives, significance, scope, conceptual framework, and previous research. These elements are essential to guide and justify the focus and direction of the research.

A. Research Background

This study examines the effect of Educandy learning application to improve students' vocabulary mastery. Vocabulary is the most basic aspect of language in the form of words and has an important role in language (Nurdin, 2024). Vocabulary is one of the significant things to learn in the English language. Several studies have found that many students graduate from school with minimal English language skills. A study by Salam and Nurnisa (2021) stated that the contributing factor is the lack of vocabulary. The outcomes of their study demonstrated that students had difficulties in vocabulary, namely pronunciation, spelling, memorizing long syllables, and understanding the meaning of words, thus making their English skills low. Therefore, vocabulary is very important in learning English, but many students still struggle due to their limited mastery. This greatly affects their overall language ability.

This research focuses on addressing the specific problems faced by vocational high school students in mastering vocabulary. Based on the results of initial observations and interviews with English teachers at the school where the researcher conducted the research, it was found that students' vocabulary mastery was still relatively low. Vocational high school (SMK) students often struggle with English vocabulary due to their focus on vocational subjects, resulting in low English proficiency. Their limited time and motivation for language learning further hinder their progress. Traditional methods such as memorization cannot meet their needs, resulting in difficulties in mastering vocabulary, communicating, and understanding texts. This is also reinforced by Zein & Stroupe's (2019) statement that many schools still use simple media such as textbooks, whiteboards, and flashcards as the main tools in learning. With limited media, students tend to

quickly feel bored and less motivated to participate in learning. In fact, motivation and active involvement are very important in the process of effective vocabulary mastery . Therefore, innovation is needed in learning media that is not only interesting but also makes it easier for students to understand and remember new vocabulary (Dissanayaka, 2025). In line with that, Rohani (2020) stated that learning media develops along with technological advances, and can be used as a means to convey information more effectively. This research examines the impact of Educandy, an interactive gamification tool, in improving vocabulary mastery, providing an innovative and engaging solution to their challenges.

The students experienced difficulties due to the fact that English is still unfamiliar in their context, and a lack of vocabulary. In addition, the morphological system of English is more complex than the morphological system of Indonesian. There are numerous educational uses for gamification for students, including Kahoot, Word Wall, Tic Tac Toe, Educandy, and quizzes (Purnawan et al., 2022). Educandy is a web application that creates quizzes (Ulya, 2021). Therefore, this study believes that Educandy supports students in learning vocabulary appropriately through pleasure.

Educandy as a digital game-based interactive learning media offers an interesting alternative to overcome these problems. With the concept of fun play and an attractive screen display, it will be able to help increase children's enthusiasm for learning languages through playing with words or letters. Educandy is an edugame-based application or educational game that can be used by teachers during the teaching and learning process. This game can be useful for students to reduce boredom during the learning process. With Educandy, we can create interactive learning games in minutes, educandy has an appearance that is very easy to understand for ordinary users (Daruwati et al., 2024). This application can be accessed by anyone so it is easy to use and play (Maimunah & Cinantya, 2021). This application is easy to use by both teachers and students, and can be accessed by anyone. This makes Educandy an interesting and practical alternative in creating a more interactive and fun learning atmosphere.

This study used a pre-experimental research design to investigate the effectiveness of using Educandy in improving vocabulary mastery of vocational

school students. Pre-experimental design is a form of experimental research design that does not fully meet the criteria of pure experimentation. According to Sugiyono (2015), pre-experimental design is used because there are still external variables that can affect the dependent variable, so the experimental results are not solely influenced by the independent variable. This occurs because there is no control group and sample selection is not randomized. One form of pre-experimental design that is often used is the one-group pretest-posttest design, in which one group of subjects is given a pretest, then treatment, and then ends with a posttest. The effectiveness of the treatment is measured by the difference between the pretest and posttest results. By integrating interactive media into the learning process, this study aims to improve student engagement and language acquisition. The findings of this study are anticipated to contribute to the development of more efficient English learning strategies, particularly in the context of vocational education.

Many previous studies have dealt with the effect of the Educandy learning application to improve students' vocabulary mastery. Most of the previous study on vocabulary mastery have focused on senior high schools, emphasizing English vocabulary in general. However, vocational students often have different learning needs, as they spend a lot of time learning their vocations. The researcher chose to focus on vocabulary mastery because the problem is a real challenge in the field. By presenting innovative and interactive learning media, it is hoped that it can help improve students' vocabulary mastery more effectively and enjoyably. Based on this gap, the author took the title “The Effect Of Educandy Learning Application To Improve Students’ Vocabulary Mastery: A Pre- Pre-Experimental Study At A Vocational High School.”

B. Research Question

This study investigated the effect of Educandy learning application to improve students' vocabulary acquisition during the learning process. To support this investigation, several research questions were developed. There are three questions formulated in this study, which focus on students' vocabulary mastery before, after, and the significance of improvement through the use of Educandy.

- a. How is students' vocabulary mastery before using the Educandy Learning Application?

- b. How is students' vocabulary mastery after using the Educandy Learning Application?
- c. How significant is the improvement of students' vocabulary mastery before and after using the Educandy Learning Application?

C. Research Purposes

The purpose of this study is to explore the impact of the Educandy learning app on students' vocabulary mastery in the context of English language learning. The study was designed to obtain a thorough comprehension of how students performed in vocabulary tasks before and after treatment with the Educandy platform. Specifically, the study aimed to assess the initial level of students' vocabulary acquisition before the use of Educandy as a learning tool, identify changes or improvements in students' vocabulary ability after its application, and determine whether the observed improvements were statistically significant. By addressing these three aspects, this study aims to evaluate Educandy's potential as an effective digital learning media to improve vocabulary mastery. In addition, the outcomes of this study are anticipated to supply valuable insights for English teachers, especially in vocational high schools, where practical and engaging learning media are essential to meet students' language learning needs.

D. Research Significance

Theoretically, this study help to understanding the role of digital learning media, such as Educandy, in improving vocabulary mastery. It strengthens theories on technology-enhanced language learning and gamification by providing empirical evidence, especially for vocational high school students, and enriches research on digital tools for language learning.

Practically, this study provides insights for teachers to use Educandy as an interactive and effective method to teach vocabulary. It also offers guidance for schools and policymakers to integrate accessible digital tools into classroom learning practices, so as to help vocational high school students build English language skills essential for their academic and professional futures.

E. Research Scope

This study examined the effect of using the Educandy learning application on the mastery of English vocabulary in vocational high school students. This research includes the subject, object, and location. First, this study examines eleventh-grade students. Second, this study examined how eleventh-grade students can improve their English vocabulary mastery by using the Educandy learning application. Third, the location of this research is SMK Itikurih Hibarna Ciparay.

F. Conceptual Framework

The focus of this research is to improve students' vocabulary mastery through the use of the Educandy learning application. This approach emphasizes interactive and engaging learning to improve vocabulary mastery. The conceptual framework illustrates the process from initial assessment, through treatment using Educandy, to the final outcome of improved vocabulary mastery.

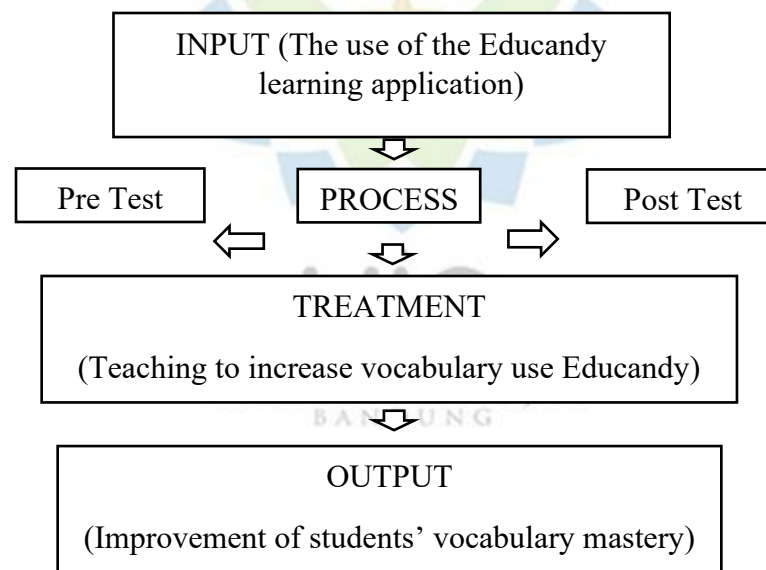


Figure 1. 1 Conceptual Framework

This study aims to improve students' English vocabulary, which is an important element of language learning. Sa'ad and Rajabi (2018) highlighted the importance of vocabulary for achieving proficiency, while Kandia et al. (2023) noted that engaging learning media can increase critical thinking and motivation. In the context of vocational education, such as at SMK Itikurih Hibarna, students often need practical language skills, so vocabulary mastery becomes even more important.

Traditional vocabulary teaching methods may not always be able to meet students' diverse learning preferences or maintain their interest in learning. Therefore, integrating digital platforms can offer a more dynamic and student-centered experience. Educandy, a web-based application, offers interactive tools such as word search, hangman, and quizzes, which encourage active participation and interest (Ulya, 2021). Its features support individualized learning, allowing students to practice vocabulary in a structured and fun way. Research by Fitriati et al. (2021) and Saputri et al. (2023) demonstrates that Educandy increases motivation, supports learning objectives, and makes vocabulary mastery effective and fun.

This study used a pre-test, treatment, and post-test design. The pre-test establishes a baseline of students' vocabulary mastery (Fraenkel & Wallen, 2009). During the treatment, Educandy will be used as the main tool, incorporating interactive games such as matching pairs and crossword puzzles to improve vocabulary. This is relevant to the opinion of Slutz and Hess (2022), who said that more than one experimental treatment can be conducted to create a typical case of a study adjusted to the availability of resources. This method was chosen to measure not only the effectiveness of the tool but also its practicality in an actual classroom setting. The post-test assessed improvement, with a comparison of before and after tests highlighting Educandy's effectiveness. This framework guided the introduction of the app to students at SMK Itikurih Hibarna and is expected to provide valuable insight into how digital tools can support vocabulary learning in a vocational high school setting.

G. Hypothesis

1. H_0 (Null Hypothesis):

There is no significant effect of using the Educandy application on vocational high school students' vocabulary mastery.

2. H_1 (Alternative Hypothesis):

There is a significant effect of using the Educandy application on vocational high school students' vocabulary mastery.

H. Previous Study

There are previous studies related to this topic. The first research was made by Islamiah et al. (2024). This research is entitled *The Use of Educandy Application in Increasing Students' Vocabulary Mastery*. This study aims to find out the specific strategies in using Educandy during English teaching to improve students' vocabulary mastery in class VIIA SMP Plus Raudlatut Tholabah in the 2023-2024 school year. The sample used was 18 students. The method used in this research is the Classroom Action Research method. The instruments of this research are a vocabulary test, an observation sheet, and a questionnaire. This learning media was implemented in the classroom using the school's Chromebooks for two cycles. It was found that students' ability to use technology, with technical fluency in using technology, did not make students feel bored while learning in the classroom. There are differences between this research and the earlier study. The use of Educandy media is also considered more effective in increasing student understanding. The results showed that using Educandy press is very helpful for students in learning English in class. The previous study used the Classroom Action Research method. The instruments of the study were a vocabulary test, an observation sheet, and a questionnaire. The learning media in the study were implemented in the classroom using the school's Chromebooks for two cycles. And the population focuses on class VIIA SMP Plus Raudlatul Tholabah. In contrast, my study applied a one-group pretest-posttest pre-experimental design at the vocational high school level (Grade XI), and focused on the effect of Educandy on vocabulary mastery, using biographical texts as part of the Merdeka Curriculum. Thus, the gap lies in the level of education, research design, instructional content, and focus of the research analysis.

The second study was conducted by Harahap (2023). This research is entitled *The Effectiveness of Educandy Application on Students' Vocabulary Achievement (A Quasi-Experimental Study at the Fifth Grade Students of Madrasah Ibtidaiyah Pembangunan Jakarta)*. The purpose of this study was to determine whether the use of the Educandy application can affect the vocabulary achievement of fifth-grade students of Madrasah Ibtidaiyah Pembangunan Jakarta in the 2022/2023 school

year. The participants of this study was fifth-grade students of Madrasah Pembangunan Jakarta. The sample of this study amounted to 46 students who were selected by a purposive sampling technique and divided into two classes, namely the experimental class and the control class. The method used in this research is a quantitative method using a quasi-experimental design. The research instrument used in this study was a vocabulary test. Data were collected using a pre-test and a post-test. The data were analyzed using non-parametric tests, namely the Simple Paired T-test . The result of this study was an increase in the average score of experimental class students, which was higher after using the Educandy application compared to the average score of the control class. Therefore, this study concludes that the Educandy App is effective on students' vocabulary achievement in fifth-grade students at Madrasah Pembangunan Jakarta in the 2022/2023 school year. There are gaps between the previous study and this research. The previous study used a quasi-experimental which used a control class and an experimental class. The population focused on Madrasah fifth-grade students.

The third study was conducted by Ulya, 2021 the title is Using Educandy In Indonesia Language Learning Evaluation. The purpose of this research is to find out how the use of educandy in learning Indonesian language to be a fun educational game for students. The method used in this research is descriptive qualitative method. The research data are the results of evaluation questionnaires with educational games. The sources of research data are students and teachers of class X SMA Se-kota Tangerang Selatan. Data collection techniques are using questionnaires, and observation. The data analysis technique is using 1) data reduction, namely selecting data that is in accordance with the research formulation, 2) data presentation, which is done descriptively, and 3) drawing conclusions, which is to facilitate research in knowing the results of the study. The results of this study are the level of frequency in providing practice questions, namely 95%, the level of frequency in using games in evaluations, namely 90%, and the level of satisfaction in using educandy, namely 95%. The gap between this research and previous research is that previous research used qualitative methods and focused on the use of Educandy for Indonesian language learning. The data collection

technique also uses questionnaires and observations in contrast to this study, which uses pre-test and post test.

The fourth study, "The Impact of Educandy Word Search Game on Enhancing Students' Vocabulary Mastery," was carried out by Ramadhanti et al., (2024). This study aims to determine the effect of Educandy charades game on students' vocabulary mastery. The research methodology in this study was a pre-experiment design with three treatments. Thirty-one pupils from class VIII G at SMPN 5 Pontianak during the 2023–2024 school year were part of the research sample. To finish this study, the researcher employed measuring techniques as data gathering methods and tests as tools. The findings demonstrated that students' vocabulary mastery can be enhanced by utilizing the Educandy word search game. The results demonstrated a rise in students' development based on the t-test analysis and the mean scores of the pre-test and post-test. In summary, the findings demonstrate that students' vocabulary mastery can be enhanced by using the Educandy word search game. Between this study and the earlier one, there is a gap. The population focused on class VIII G at SMPN 5 Pontianak.

Based on previous studies, there are still some research gaps. First, most of the previous studies were conducted at the elementary or junior high school level, while this study focuses on vocational students who have different learning needs and characteristics. Secondly, previous research designs varied, such as CAR, quasi-experiment, and descriptive qualitative, while this study used a one-group pretest-posttest pre-experiment. Thirdly, some studies only discussed certain features of Educandy or applied to subjects other than English. This study instead incorporates several features of Educandy and focuses on vocabulary in biography texts, in accordance with the Merdeka Curriculum for SMK. Thus, this study fills the gap and makes new contributions in learning contexts, methods, and materials.